ISOLAB
Laborgeräte GmbH



English Edition

24 years

ISOLAB
Laborgeräte GmbH

one stop shopping
for laboratories

- glasswares
- consumables
- equipments
- instruments
- chemicals

2018 - 2020

ISOLAB
Laborgeräte GmbH



Dear customer,

We are proud to present our new, colourful and cheerful cataloque to your taste.

Main "highlights" of our new catalogue are;

We added hundreds of new products that were carefully selected to ease your daily work.





Products are catagorised with different section colors according to their areas of utilization.

New designed product and catalogue number indexes offer easy and fast access to products.





We are now offering a wide range of chemicals and reagents with a perfect price & quality correlation.

24 years of enthusiasm

ISOLAB
Laborgeräte GmbH

The larger picture becomes different on the basis of on the angle which we look from.

For us, the only invariable in this picture is quality.

No matter how time may shape us, our product quality, service quality, man-force quality, and management quality will never change.





Our compass always directs us to perfection.

German sensibility and perfectionism are two important components of our entire business life.

Our main rule is to deny the word “impossible”. We have no place in our vocabulary such as “impossible”.

In contrast, we have opportunity, solution, flexibility.

“There is always a way out” for those who want success as much as we do.





We consider our customers as the sole judge in this game that we have been playing with enthusiasm.

Customer satisfaction is the only criteria that determines our victory.



Beginning with our first step up to today, we wanted the word “trust” to gleam immediately next to our name. And it is actually what happened.

Our belief is that everything starts with trust, and the way something starts, it is bound to go on the same way.

We embrace evolution.
We escalate our operation capacity in order to advance one step further.

The essential part of this is technology.
We have never fallen behind in technology required by time.

At our each and every step, we use top level technology.





It is our sincere belief that we were all born from the same mother.

We are always respectful to the mother nature, to the environment and the world we live in.

We know that there isn’t a more valuable heritage that we can leave for the future generations.

For many years now, we have been working for science extending beyond boundaries.

We have been succesfully exporting to 90 countries in the world.



ISOLAB
Laborgeräte GmbH

highlights

plastic injection production





ISOLAB is also a well known plastic labware manufacturer.
Latest technologies approved production techniques and high capacity machinery park are held to serve the best **sterile** and **non sterile** products.
ISOLAB plastic production consists of experienced staff, high capacity injection moulding technology and premium grade raw material.
Most of the ISOLAB plastic products are certified with **CE - Invitro Diagnostic Directive,** council directive 98/79/EC, concerning in vitro diagnostic instruments.
Raw materials are carefully chosen according to their **MFI** (melt flow index) value, **OIT** (oxidative induction time) value, density and humidity.

All plastic injection process is held environmentally friendly machines which use natural sources at a very minimum level.

All European made moulds and auxiliary equipment provide high quality products and fast service for customers.

highlights

plastic blowing production





Thanks to the latest technology, ISOLAB became one of the best Plastic Blowing Producer in labware industry.

Fully automated blowing machines, European made moulds and auxiliary, Premium grade raw material and experienced staff, provide a stable and seamless labwares, such as; bottles, pipettes etc.

ISOLAB is using very sensitive control units, such as patented parison controls from 300 different points.

This helps to control the wall thickness in all sections of a product and resulting a continuous quality level.

Proposed in a wide range of products, ISOLAB blow molding production covers a variety of labwares from bottles to containers, blown from approved polyolefins.

ISOLAB Laborgeräte GmbH

highlights

plastic sterile production



ISOLAB sterile production plants are well equipped clean rooms with **HEPA filters** and positive pressure areas which are supplied with air locked doors.

Clean rooms are validated according to international **DIN** and **ISO** standards.

In order to avoid any contamination through human contact, the entire process is automated.

Raw material is automatically fed from silos to moulding machines, through vacuum loaders.

The moulding machines are automatically connected to loading machines. The entire machinery is constantly monitored by advanced software.

Clean room staff is equipped with appropriate, protective clothes, in order to diminish the contamination risks.

highlights

quality control & certification



*The biotech industry needs certification for the plastics they use. The market trends indicate a need for **DNase, RNase and pyrogen-free products.***

ISOLAB ***certified plastics*** *are a result of an ongoing quality control process.*

The process begins with the inspection of raw materials to monitoring the final product and ends with testing each lot after production for contaminants.



ISOLAB Laborgeräte GmbH

DIN EN ISO CERTIFIED 9001

product groups classified by colors

volumetric measurement & liquid handling (001 - 044)

volumetric flasks, cylinders, burettes, pipettes, fillers, pipette pumps, digital burettes, dispensers, micro pipettes, accessories

laboratory consumables & labware (045 - 126)

glassware, bottles, cups, jerrycans, baskets, boxes, tubes, stands, clamps, spatulas, mortars, crucibles, burners, tubings, stoppers, sealing films, tapes, labels, pens, bags, accessories

distilation & filtration & separation & sample preparation (127 - 178)

adapters, connectors, condensers, extractors, NS glassware, water stills, pumps, funnels, filter flasks, filter papers, manifolds, separating funnels, centrifuges, homogenizers, accessories

cleaning & safety & protection & sterilization (179 - 218)

brushes, draining racks, pipette washers, ultrasonic baths, autoclaves, safety labels, spectacles, protector suits, googles, eye wash bottles, masks, gloves, safety creams, accessories

density & temperature & time & pH & weight measurement (219 - 242)

density bottles, imhoff cones, thermometers, thermohygrometers, stopwatches, timers, pH meters, indicator strips, balances, weighing dishes, watch glasses, accessories

stirring & mixing & shaking & heating & cooling (243 - 266)

magnetic stirrers, magnetic bars, stirring rods, mechanical stirrers, vortex mixers, rotators, shakers, ovens, incubators, heating mantles, accessories

chromatography & spectroscopy (267 - 290)

syringe filters, syringes, NMR tubes, membrane filters, cuvettes, TLC products, vials, septas, caps, vial boxes, vial stands, crimpers, decappers, accessories

life sciences & microscopy & microbiology (291 - 359)

centrifuge tubes, cryo tubes, PCR tubes, cell culture products, magnifiers, refractometers, microscopes, cover glasses, slides, petri dishes, swaps, embedding casettes, accessories

laboratory & chemicals & reagents (361 - 457)

laboratory chemicals, laboratory reagents, laboratory solvents, acids & bases, dyes & stains, pH buffer solutions, life science special products, accessories

ADAPTERS
- 2 necks 130
- 2 necks - 45° 130
- 2 necks - 75° 130
- 3 necks 130
- bend 129
- bend - 75° 130
- bend - 90° 130
- bend- with stopcock 129
- delivery 131 & 134
- distilling heads 131
- expansion 128
- PTFE 133
- receiving 134
- reduction 128
- splash heads 131
- straight 129
- straight - with stopcock 129
- tube - micro 302
- with screw cap 128
- with screw thread 128
- with stopcock 131

Aluminium disc 118
Aluminium foil 118
Aluminium foil dispenser 118
Aquadur test strips 234
Arsenic estimator 136

AUTOCLAVES
- horizontal 194
- indicator roll 195
- vertical 195

BAGS
- autoclavable 124
- bag latches 177
- homogenization 177
- homogenization - stand 177
- latches 126
- locks 126
- sealers 126
- stand 185
- ties 126
- with document wallet 124
- with wire closure 125
- zip lock 125

BALANCES
- 0.0001 g precision 236
- 0.001 g presicion 237
- 0.01 g precision 238-239
- 0.1 g precision 239
- printer 236

BASKETS
- basket for bottles 66
- carrier for bottles 66
- general purpose 67
- petri dish 350
- basket 191
- cleaner paste 191
- detergent 191
- ultrasonic - degass 192
- ultrasonic - spectacles 191
- ultrasonic - standard 190
- water 261

Beads - glass 133

BEAKERS
- glass 46
- polypropylene 46
- PTFE 46
- stainless steel 47
- with handle 47

Blender set 178
Blood counting chambers 340
Blood lancets 358
Blowlamp 105
Borer sharpener 115

BOSSHEADS
- for stirrers 174 & 175 & 252
- heavy duty 82
- standard 82
- swivel 82

BOTTLES
- aluminium 54
- aspirator 60
- dropping 64 - 65
- filter 160
- glass - for liquids 56
- glass - for powders 56
- ISO - coated glass 51
- ISO - polypropylene 52
- polyethylene- for liquids 57
- polyethylene- for powders 57
- security seal cutter 53
- side arm 28
- spraying 64
- square 53
- wash 62-63-64
- water sampling 55
- wide neck 51
- burette 17
- gas wash 135

BOXES
- click lock 68
- cryo - cardboard 313
- cryo - polypropylene 311
- dispenser 70
- double opening 68
- foldable 69
- for nitrile gloves 213
- freezer - PCR 322
- freezing 316
- rail system 69
- safety 196
- slide 344 - 345
- transport 67
- tray 196
- tube - cardboard 299
- tube - polypropylene 298
- vial 289
- with compartments 67 - 71
- with drawers 70

BRUSHES
- burette 180
- cytology 359
- dish washing 182
- hygenical cleaning 182
- intens,ve cleaning 182
- laboratory 180-181-182

BUCKETS
- ice 317
- stainless steel 184
- with lid 184
- with spout 184

BUNSEN BURNERS
- advanced 104
- blowlamp 105
- gas cartridge 105
- hose 105
- lighter 105
- meker 104
- stabilizer 104
- standard 104
- with gas cartridge 105

BURETTES
- bottles 17
- automatic 16
- bellow 17
- digital - manuel 28
- digital - motor driven 29
- schilling 17
- straight 14-15

Burette clamps 81
Büchner funnels 158
Caps 199

CARBOYS
- polyethylene 61
- polypropylene 61
- stand 61

Carrier for bottles 66
Cell counters 340

CELL CULTURES
- cap - aliminium 333
- cell lifter 325
- cell lifter 325
- cell scraper 325
- cell sparaders 354
- cell strainer 330
- confocal dish& plate 329
- coverslips 328
- erlenmeyer 333
- erlenmeyer - baffed 333
- flasks 326
- IVF dish 329
- immunoplate strip 330
- immunoplates 330
- inaculation loop - steel 353
- infrared sterilizer 353
- inoculation loop handle 353
- inoculation loops - HIPS 352
- inoculation turn table 352
- multiwell plate 327
- petri dish 329
- slides 328

Cell sparaders 354

CENTRIFUGE
- clinical 170
- hematocrit 171
- mini 166
- mini - high speed 167
- multi purpose 172
- rotors - for hematocrit 171
- rotors - for micro high speed 168
- rotors - for multi purpose 173
- w/o refrigaration 169
- with refrigaration 169

product index

Centrifuge tubes 292
Ceramic triangle 79
Chemical pads 200
Chemical sorbent granules 201
Chemistry set 136
Chromatography columns 140

CLAMPS
2 jaws 80
3 jaws 80
burette 81
click lock 108
for frame work 81
for KS joints 147
or vacuum filter set 160
keck 109
thermometer 82
tube 73
worm drive screw 109

Cleaning towel dispenser 183
Cleaning towels 183
Cleanware organizer 183

CLIPS
for NS joints 137

Colony counter 351
Columns for chromatography 140

CONDENSERS
allihn 138
allihn - for soxhlet 140
dimroth 139
dimroth - for soxhlet 140
liebig 138
spiral 139

Conductivity solution 230
Confocal dish& plate 329

CONTAINERS
press-on cap 59
screw cap 59
cover glass forcep 91
cover glasses 341

Cover glasses - blood counting 340

CREAMS
skin care 218
skin care set 218
skin cleanser 218
skin comfort 218
skin protection 218

Crimpers 290

CRUCIBLES
alsint 103
gooch 162
lids 102
porcelain 102
quartz 103
stainless steel 103

Crucible tongs 102

CRYO
box - cardboard 313
box - polycarbonate 312
box - polypropylene 311
cryo caps 309
cryo caps 309
cryo tube canes 309
freezer rack 314 - 315
tube 308
work station 310

CRYSTALLIZATION DISHES
glass 101
stainless steel 101

Cumbostion boat 103
Cutters 94
Cutting tool for tapes 120

CUVETTES
boxes 275
glass 274 - 275
polystyrene 274
quartz 275

CYLINDERS
measuring 12
measuring - class B 13
mixing 12
polypropylene 13

Cytology brush 359
Decappers 290
Density bottles 220

DESICCATOR
desiccators 96
lids 97
plates 97

Desiccant beads 97

DESK PROTECTORS
paper 200
cork 200
silicone 201

DISPENSERS
advanced 32
digital - motor driven 31
dispenser 33
repetetive 30
tips 30
with circulation valve 33
with circulation valve - advanced 32

Dispenser boxes 70
Dissecting needle set 94
Distilling heads 131
Distilling links 132 - 133
DO electrolyte solution 230
DO probe 230
Draining racks 188
Dropping bottles 64 - 65
Dropping funnels 165
Dry bath incubator 295
Dry bath incubator blocks 295
Drying ovens 262
Drying tubes 135
Ear muff 207
Ear plugs 207

ELECTRODES
conductivity 230
ORP 230
pH 230

Embedding cassettes 357

ERLENMEYERS
cell culture 333
cell culture - baffed 333
glass 48
glass - ground neck 142
screw cap 48

Estimator - arsenic 136
Estimator - water 136

EVAPORATING DISHES
porcelain 100
quarz 101
stainless steel 100

Evaporating dish tong 100
Extractor thimbles 141
Extractors - soxhlet 141
Eye wash bottle stand 209
Eye wash bottles 208 - 209

FILMS
parafilm 116
parafilm dispenser 117
stretch 116

FILTER
membrane 271

Filter flasks 157
Filter flasks for vacuum system 160
Filter paper forcep 92
Filter papers 159
Finger protectors 217

FLASKS
2 ground neck 144
3 ground neck 144 - 145
amber - ground neck 143
cell culture 326
evaporating 147
filter 157 - 160
flat bottom 49
flat bottom - ground neck 143
kjehldahl 146
nitrogen 146
pear shape 145
receiving 147
round bottom 49
round bottom - ground neck 143
volumetric 8 - 9 -10 -11

Flask stands 49
Flow indicator 110

FORCEPS
ABS 91
cover glasses 91
dissecting 90
filter paper 91
general use 90 - 92

Freezer rack 314 - 315

FUNNELS
- analytical 154
- büchner 158
- dropping 165
- glass - plain 154
- glass - powder 155
- gooch 162
- holders 156
- industrial 155
- polypropylene - plain 154
- polypropylene - powder 155
- polypropylene - ribbed 154
- separating 164
- stand 156

Gas wash bottle heads 135
Gas wash bottles 135
Gaskets 158
GHS pictograms 197
Glass beads 133

GLOVES
- box 213
- cold protection 216
- cut resistance 215
- finger protectors 217
- fnger protectors 217
- heat protection 217
- neopren 214
- nitrile 212 - 213
- nitrile - chemical protection 214
- polyurethane 215
- safe handling 216
- silicone 217
- thermal resistance 215

Goggle 205
Gooch crucible 162
Gooch funnel 162
Grease 137
Ground joints 128

HEATING MANTLES
- accessories - multi row 266
- multi row 266
- w/o stirrer 264
- with stirrer 265
- with stirrer - temperature control 266

HOMOGENIZERS
- clamp - for homogenizer 175
- clamp - for homogenizer 174
- heavy duty 175
- ight duty 174
- paddle blender 176
- rotor set 174 - 175

Homogenization bag latches 177
Homogenization bag stands 177
Homogenization bags 177
Hose for bunsen burner 105
Ice bucket 317
Ice cube tray 317
Imhoff cone stands 221
Imhoff cones 221
Immunoplates 330
Incinerating dishes 103
Incubator - dry bath 295
Incubators 263
Infrared sterilizer 353
Inoculation loop - steel 353
Inoculation loop handle 353
Inoculation loops - HIPS 352
Inoculation turn table 352
Inventory sheets 345
IVF dish 329

JARS
- glass 58
- PET 58
- polypropylene 58
- Staining jar rack 356
- staining jars 356

JERRYCANS
- polyethylene 60
- stainless steel 60

Joint grease 137
Joint sleeves 137
K3 EDTA tubes 359
Kettle 178
Knives 94

LABELS
- circular form 122
- general purpose 121
- rectangular form 123
- safety 197

Label dispenser 122
Label remover 122
Labelling tapes 121
Laboratory jack 79

LABORATORY STANDS
- ABS 79
- horse shoe 252
- rectangular 78
- support rods 78
- triangle 78
- tripod 79

Laboratory tissue 183
LED light source 206
Lens cleaning tissue 206
Lighter 105
Lithmus paper 232

MAGNETIC STIRRERS
- with hot plate 244
- w/o hot plate 247 - 248 - 249
- with hot plate 245 - 246 - 249

Magnetic stirring bars 250
Magnifier 334
Manifolds 160

MASKS
- cartridge - full face 211
- cartridge - half face 211
- dust 210
- full face 211
- half face 211

MECHANICAL STIRRERS
- light duty 252
- mechanical - heavy duty 253

Mechanical stirrer shafts 253
Membrane filters 271

METERS
- pH - portable 228

MICROPIPETTES
- 12 channel 39
- 8 channel 38
- Micropipette stands 42
- single channel 34 - 35 - 36
- stands 42 - 43

MICROSCOPES
- biological 336 - 337
- Image projector 339
- stereo 338

MIXERS
- microplate 255
- vortex - advanced 254
- vortex - basic 255
- vortex - LED display 254

Micro haematocrit tubes 358
Microfiber wipes 183
Micropipette pipetting reservoirs 44
Micropipette tips 40 - 41
Micropipette control knobs 37

MORTARS
- agate 98
- alsint 99
- porcelain 99

Muffle furnace 260
Multiwell plates 327
NMR tube caps 270
NMR tube stand 270
NMR tubes 270
Non-return valve 110
Oil test strips 235
Over boats 199
Over shoes 199
Over sleeves 199
Ozone test strips 235
Parafilm 116
Parafilm dispenser 117

PCR
- freezer 322
- plates 320
- sealing film 321
- sealing tape 321
- strips 318 - 319
- transfer tray 322
- tubes 318
- work station 323

Pehanon test strips 233

product index

PEN
- double tip 119
- engraving 119
- single tip 119

PESTLES
- agate 99
- micro tube 303
- porcelain 99

PETRI DISH
- basket 350
- cell culture 349
- cell culture 329
- glass 348
- polystyrene 348
- rodac 349
- stands 350
- stands 350

Petri dish sealing tape 120
pH - portable 228
pH - table top 229
pH buffer solutions 231
pH indicator strips 232
pH paper roll 233

PIPETTES
- graduated 20 - 21
- pasteuer - glass 19
- pasteur - polyethylene 19
- pasteur pipette bulb 19
- pipette rack 23
- pipette stands 22
- pipette tray 22
- serological 18
- ultrasonic cleaner 189
- volumetric 20 - 21
- washing set 189

Pipette boxes 23
Pipette bulb 25
Pipette fillers 24 - 25
Pipette pump - electrical 26 - 27

PLANT CULTURE
- bottle 331
- box 331
- dish 331
- frame 331

Potasium iodide test strips 235
Protective collars 157
Protective suits 198 - 199

PUMPS
- hand operated 152
- Peristaltic 153
- vacuum & pressure 152
- water jet 152

Qualitative filter papers 159
Quantitative filter papers 159
Quantofix test strips 234
Refractometers 335
Rotary evaporator spare parts 151
Rotary evaporators 151

ROTATORS
- 3D - with display 258
- circular - w/o display 257
- horizontal - w/o display 257
- hrizontal - LCD display 256
- rotiserries 256
- tube - w/o display 257

Safety box tray 196
Safety boxes 196
Safety shield 207

SCALPELS
- blades 95
- handles 95
- with safety cover 95

SCISSORS
- disecting 93
- for hose cutting 93
- general use 92
- heavy duty 93

SCOOPS
- self standing - polypropyle 86
- self standing - polystyrene 87
- stainless steel 88

Screw caps 114
Sealing tape - PTFE 137
Security seal 53
Sedi rate 359
Separating funnels 164

SHAKERS
- 3D - w/o display 259
- 3D with display 258
- accessories 259

Silica-Gel 97
Sleeves 137

SLIDES
- box cabinet 344
- boxes 344
- boxes - steel latch 345
- cell culture 328
- coverslips - cell culture 328
- dispenser 347
- magazines 346
- mailers 347
- wallet rack 343
- wallets - cardboard 343
- wallets - polystyrene 342
- slides 341

Slide inventory sheets 345
Soaking solution 230
Soxhlet extractors 141

SPATULAS
- chattaway 85
- curved end 85
- double end 84
- flat knife 85
- macro spoon 84
- macro spoon - polypropylene 84
- micro spoon 84
- poly 85
- round grooved 84
- spatula set 85
- with lid 89

Spectacle cabinet 205
Spectacles 204
Spectacles 202 - 203 -204
Spectrophotometer cuvettes 274
Spectrophotometers 272 - 273

SPOONS
- polystyrene 88
- stainless steel 88

Stabilising rings 48
Staining jar rack 356
Staining jars 356

STANDS
- eye wash bottle 209
- imhoff cone 221
- imhoff cone - acrylic 221
- petri dish 350
- laboratory 78
- thermometer / NMR 222

STIRRERS
- heating blocks 245
- magnetic - w/o hot plate 247 - 248
- magnetic - with hot plate 244 - 245 - 246
- mechanical - heavy duty 253
- mechanical - light duty 252
- multi position - w/o hot plate 249
- multi position - with hot plate 249
- Stirrer shafts 253

Stirring rods 250 - 251
Stopcocks 111

STOPPERS
- cellulose 113 - 333
- cork 112
- glass 114
- polypropylene 114
- rubber 112
- rubber - drilled 113
- silicone 112
- turn over flange 113

Stopper borer 115
Stopper borer sharpener 115
Stopwatches 226
Swabs 355

SYRINGES
- glass 281
- polypropylene 281
- serie H 280
- serie H - removable needle 280
- serie RN - removable needle 279
- serie T 278

SYRINGE FILTERS
- non-sterile 268
- sterile 269

TAPES
- cutting tool 120
- for labelling 121
- sealing - petri 120
- sealing - PTFE 137
- sealing - varios 120

Tape dispenser 121
Temperature probe 230
Test indicator - steam sterilization 195

TEST STRIPS
- aquadur 234
- oil test 235
- ozone test 235
- pehanon 233
- peroxide 234
- pH indicator strips 232
- pH paper roll 233
- potasium iodide starch 235
- water hardness 235

Thermohygrometer 224
Thermohygrometer - portable 223

THERMOMETERS
- desk top 224
- glass 222
- max-min - humidity 225
- portable 223

Thermometer / NMR stand 222
Thermometer adapter 128
Thermometer clamp 82
Thimbles 141

TIMERS
- electronic 227
- mechanical 226
- mechanical 226

Tissue 183
Tissue base moulds 356
Tissue grinder 303

TLC
- plates 276
- separation tank 277
- spray kit 277
- sprayer 277

TONGS
- crucible 83 - 102
- evaporating dish 102
- lask 83 - 100
- flat jaw 83
- rod jaw 83

Towel dispenser 183
Towels 183
Transport box 67

TRAYS
- ice cube 317
- PCR transfer 322
- polypropylene 184
- stainless steel 184
- stainless steel 184

TUBES
- PCR strips 318
- qPCR strips 319
- centrifuge - glass 73
- centrifuge - screw cap 292 - 302
- centrifuge - amber 292 - 293
- centrifuge - self standing 293 - 294
- cryo 308
- cryo cap insert 309
- drying 309
- K3 EDTA tubes 359
- NMR 135
- NMR cap 270
- plates 270
- sealing film 320
- test - glass 72
- test - polypropylene 73
- test - polystyrene 73
- tube adapter - micro 302
- tubes 318

TUBE BOXES
- cardboard 299
- polypropylene 298

Tube clamps 73

TUBE RACKS
- 4 sides 301
- epoxy coated steel 76
- foldable 75 - 300
- hedgehod design 296
- micro tube - 3 tier 306 - 307
- micro tube - base support 305
- micro tube - foldable 304
- micro tube - monoblock 304 - 305
- PCR tube 323
- push&hold 297
- snapable 300
- stainless steel 77
- with silicone grips 77

Tube selector 110

TUBINGS
- clamps - click lock 108
- clamps - hoffmann 109
- clamps - keck 109
- clamps - worm drive screw 109
- PTFE 107
- reinforced PVC 106
- rubber - standard 106
- rubber - vacuum 106
- scissor 107
- silicone 106
- tygon 107

Tubing connectors 111
Ultrasonic cleaner basket 191
Ultrasonic cleaner detergent 191
Ultrasonic cleaner paste 191
Ultrasonic cleaners 190
Ultrasonic pipette cleaner 189

VACUUM
- filter set 160
- filtration unit 160
- flask 160
- hand operated 152
- manifolds 160 - 161
- pump - peristaltic
- pump - vacuum & pressure
- pumps
- support base 160

Vacuum filter set 160
Vacuum filter system 332
Valve 110

VIALS
- box 289
- crimper & decapper 290
- N10 - screw cap 284
- N10 insert 284
- N11 - crimp cap 285
- N11 - crimp cap with insert 286
- N11 - P.P snap ring 286
- N11 caps& septas 286
- N11 insert 286
- N13 - screw cap 287
- N15 - screw cap 287
- N15 caps& septas 287
- N20 - crimp cap 288
- N204caps& septas 289
- N24 - screw cap 289
- N8 - screw cap 283
- N8 caps& septas 283
- N8 insert 283
- N9 - polypropylene 284
- N9 - screw cap 283
- N9 - screw cap with insert 284
- N9 insert 284
- N9&N10 caps& septas 285
- racks 285

Visitor gowns 198

VOLUMETRIC FLASKS
- glass 8 - 9
- glass - coated 10
- polypropylene 11
- trapezoidal 11

Wash bottles 62 - 63 - 64
Waste bins 185
Watch glasses 242
Water conditioner 261
Water estimator 136
Water hardness test strips 235

WATER STILLS
- automatic 149
- basic 148
- filter 149

WEIGHING
- bottles 242
- brush 242
- dishes - square form 240
- dishes - aluminium 241
- dishes - diamond form 240
- papers 242
- scoops 241

Wipes 183
Wire gauze 78
with foldable probe 225
with foldable probe 224

product index

catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page
005.01.001 → 41	011.05.100 → 35	013.01.901C → 10	015.01.050 → 12	021.01.010 → 20	025.01.910 → 46
005.01.002 → 41	011.05.200 → 35	013.01.902 → 8	015.01.100 → 12	021.01.020 → 20	025.03.050 → 46
005.01.003 → 41	011.05.901 → 35	013.01.902C → 10	015.01.250 → 12	021.01.025 → 20	025.03.100 → 46
005.01.004 → 41	011.05.905 → 35	013.01.905 → 8	015.01.500 → 12	021.01.050 → 20	025.03.250 → 46
005.01.005 → 41	011.05.910 → 35	013.01.910 → 8	015.01.901 → 12	021.05.001 → 20	025.03.500 → 46
006.01.001 → 43	011.06.002 → 34	013.13.001 → 11	015.01.902 → 12	021.05.002 → 20	025.03.901 → 46
006.03.030 → 44	011.06.010 → 34	013.13.002 → 11	015.07.010 → 13	021.05.003 → 20	025.04.100 → 47
006.03.055 → 44	011.06.020 → 34	013.13.003 → 11	015.07.025 → 13	021.05.004 → 20	025.04.250 → 47
006.03.110 → 44	011.06.050 → 34	013.13.004 → 11	015.07.050 → 13	021.05.005 → 20	025.04.500 → 47
006.05.001 → 42	011.06.100 → 34	013.13.005 → 11	015.07.100 → 13	021.05.010 → 20	025.04.901 → 47
006.08.001 → 44	011.06.200 → 34	013.13.010 → 11	015.07.250 → 13	021.05.011 → 20	025.05.500 → 47
006.11.005 → 42	011.06.901 → 34	013.13.020 → 11	015.07.500 → 13	021.05.015 → 20	025.05.901 → 47
006.11.006 → 42	011.06.905 → 34	013.13.025 → 11	015.07.901 → 13	021.05.020 → 20	025.05.902 → 47
006.12.004 → 42	011.06.910 → 34	013.13.050 → 11	016.01.010 → 12	021.05.025 → 20	026.01.025 → 46
006.12.006 → 42	011.20.002 → 36	013.15.001 → 11	016.01.025 → 12	021.05.050 → 20	026.01.050 → 46
006.13.030 → 44	011.20.010 → 36	013.15.002 → 11	016.01.050 → 12	021.11.001 → 21	026.01.100 → 46
006.13.055 → 44	011.20.020 → 36	013.15.003 → 11	016.01.100 → 12	021.11.002 → 21	026.01.250 → 46
006.13.110 → 44	011.20.050 → 36	013.15.004 → 11	016.01.250 → 12	021.11.005 → 21	026.01.500 → 46
006.15.001 → 70	011.20.100 → 36	013.15.005 → 11	016.01.500 → 12	021.11.010 → 21	026.01.901 → 46
006.15.002 → 70	011.20.200 → 36	013.15.010 → 11	016.01.901 → 12	021.11.020 → 21	026.01.902 → 46
006.15.003 → 70	011.20.901 → 36	013.15.020 → 11	016.05.010 → 13	021.11.025 → 21	026.02.250 → 47
007.01.001 → 28	011.20.905 → 36	013.15.025 → 11	016.05.025 → 13	021.11.050 → 21	026.02.500 → 47
007.01.002 → 29	011.20.910 → 36	013.15.050 → 11	016.05.050 → 13	021.12.001 → 21	026.02.901 → 47
007.02.001 → 28	011.21.010 → 38	014.01.005 → 9	016.05.100 → 13	021.12.002 → 21	026.02.902 → 47
007.02.002 → 28	011.21.050 → 38	014.01.005C → 10	016.05.250 → 13	021.12.005 → 21	026.02.903 → 47
007.02.003 → 28	011.21.200 → 38	014.01.010 → 9	016.05.500 → 13	021.12.010 → 21	026.03.001 → 83
007.02.004 → 28	011.21.300 → 38	014.01.010C → 10	016.05.901 → 13	021.12.020 → 21	026.03.002 → 83
007.02.005 → 28	011.22.010 → 39	014.01.020 → 9	016.06.010 → 13	021.12.025 → 21	026.03.025 → 46
007.02.006 → 28	011.22.050 → 39	014.01.020C → 10	016.06.025 → 13	021.12.050 → 21	026.03.050 → 46
008.02.002 → 33	011.22.200 → 39	014.01.025 → 9	016.06.050 → 13	021.15.001 → 21	026.03.100 → 46
008.02.005 → 33	011.22.300 → 39	014.01.025C → 10	016.06.100 → 13	021.15.002 → 21	026.03.250 → 46
008.02.010 → 33	011.23.001 → 37	014.01.026 → 9	016.06.250 → 13	021.15.005 → 21	026.03.500 → 46
008.02.030 → 33	011.23.002 → 37	014.01.026C → 10	016.06.500 → 13	021.15.010 → 21	026.03.901 → 46
008.02.060 → 33	011.24.005 → 37	014.01.050 → 9	016.06.901 → 13	021.15.015 → 21	026.03.902 → 46
008.02.100 → 33	011.24.010 → 37	014.01.050C → 10	016.07.010 → 13	021.15.020 → 21	026.04.250 → 47
008.05.002 → 33	011.25.010 → 37	014.01.051 → 9	016.07.025 → 13	021.15.025 → 21	026.04.500 → 47
008.05.005 → 33	011.25.020 → 37	014.01.051C → 10	016.07.050 → 13	021.16.001 → 21	026.04.901 → 47
008.05.010 → 33	011.26.020 → 37	014.01.100 → 9	016.07.100 → 13	021.16.002 → 21	026.04.902 → 47
008.05.030 → 33	011.26.025 → 37	014.01.100C → 10	016.07.250 → 13	021.16.005 → 21	026.04.903 → 47
008.05.060 → 33	011.26.050 → 37	014.01.101 → 9	016.07.500 → 13	021.16.010 → 21	027.01.025 → 48
008.05.100 → 33	011.27.030 → 37	014.01.101C → 10	016.07.901 → 13	021.16.015 → 21	027.01.050 → 48
008.06.001 → 30	011.27.050 → 37	014.01.200 → 9	017.01.010 → 14	021.16.020 → 21	027.01.100 → 48
008.06.002 → 30	011.27.100 → 37	014.01.200C → 10	017.01.025 → 14	021.16.025 → 21	027.01.250 → 48
008.06.005 → 30	011.28.100 → 37	014.01.250 → 9	017.01.050 → 14	022.01.001 → 22	027.01.300 → 48
008.06.012 → 30	011.28.200 → 37	014.01.250C → 10	017.02.010 → 14	022.02.001 → 22	027.01.500 → 48
008.06.025 → 30	011.29.300 → 37	014.01.500 → 9	017.02.025 → 14	022.03.001 → 22	027.01.901 → 48
008.06.050 → 30	011.30.500 → 37	014.01.500C → 10	017.02.050 → 14	022.03.002 → 23	027.01.902 → 48
008.06.125 → 30	011.30.901 → 37	014.01.901 → 9	018.01.010 → 14	022.03.003 → 23	027.01.903 → 48
008.06.250 → 30	011.31.925 → 37	014.01.901C → 10	018.01.025 → 14	022.03.011 → 22	027.01.905 → 48
008.06.500 → 30	013.01.005 → 8	014.01.902 → 9	018.01.050 → 14	022.04.001 → 23	027.03.100 → 48
008.11.001 → 31	013.01.005C → 10	014.01.902C → 10	018.05.001 → 81	022.04.002 → 23	027.03.250 → 48
008.12.002 → 32	013.01.010 → 8	014.03.025 → 11	018.05.002 → 81	022.06.001 → 23	027.03.500 → 48
008.12.005 → 32	013.01.010C → 10	014.03.050 → 11	018.06.001 → 81	023.01.005 → 220	027.03.901 → 48
008.12.010 → 32	013.01.020 → 8	014.03.100 → 11	018.06.002 → 81	023.01.010 → 220	027.06.100 → 333
008.12.030 → 32	013.01.020C → 10	014.03.250 → 11	018.11.025 → 15	023.01.025 → 220	027.06.101 → 333
008.12.060 → 32	013.01.025 → 8	014.03.500 → 11	018.11.050 → 15	023.01.050 → 220	027.06.250 → 333
008.12.100 → 32	013.01.025C → 10	014.03.901 → 11	018.12.025 → 15	023.01.100 → 220	027.06.500 → 333
008.15.002 → 32	013.01.026 → 8	014.11.005 → 9	018.12.050 → 15	023.02.005 → 220	027.06.901 → 333
008.15.005 → 32	013.01.026C → 10	014.11.010 → 9	018.13.025 → 15	023.02.010 → 220	027.06.902 → 333
008.15.010 → 32	013.01.050 → 8	014.11.020 → 9	018.13.050 → 15	023.02.025 → 220	027.07.250 → 333
008.15.030 → 32	013.01.050C → 10	014.11.025 → 9	018.14.025 → 15	023.02.050 → 220	027.07.500 → 333
008.15.060 → 32	013.01.051 → 8	014.11.026 → 9	018.14.050 → 15	023.02.100 → 220	027.07.901 → 333
008.15.100 → 32	013.01.051C → 10	014.11.050 → 9	019.01.010 → 16	023.03.005 → 220	027.08.250 → 333
010.01.005 → 26	013.01.100 → 8	014.11.051 → 9	019.01.025 → 16	023.03.010 → 220	027.08.500 → 333
010.01.006 → 27	013.01.100C → 10	014.11.100 → 9	019.01.050 → 16	023.03.025 → 220	027.08.901 → 333
011.01.002 → 24	013.01.101 → 8	014.11.101 → 9	019.05.010 → 16	023.03.050 → 220	027.11.048 → 48
011.01.010 → 24	013.01.101C → 10	014.11.200 → 9	019.05.025 → 16	023.03.100 → 220	027.11.056 → 48
011.01.025 → 24	013.01.150 → 8	014.11.250 → 9	019.05.050 → 16	025.01.005 → 46	027.11.061 → 48
011.02.001 → 25	013.01.150C → 10	014.11.500 → 9	020.03.010 → 17	025.01.010 → 46	027.11.074 → 48
011.02.002 → 25	013.01.200 → 8	014.11.901 → 9	020.03.025 → 17	025.01.025 → 46	028.01.050 → 142
011.02.003 → 24	013.01.200C → 10	014.11.902 → 9	020.03.050 → 17	025.01.050 → 46	028.01.051 → 142
011.02.003.3 → 24	013.01.250 → 8	014.13.025 → 11	020.05.010 → 17	025.01.100 → 46	028.01.052 → 142
011.04.001 → 25	013.01.250C → 10	014.13.050 → 11	020.05.025 → 17	025.01.150 → 46	028.01.053 → 142
011.04.003 → 25	013.01.300 → 8	014.13.100 → 11	020.05.050 → 17	025.01.250 → 46	028.01.100 → 142
011.04.005 → 25	013.01.300C → 10	014.13.250 → 11	020.07.010 → 17	025.01.400 → 46	028.01.101 → 142
011.04.010 → 25	013.01.400 → 8	014.13.500 → 11	020.07.025 → 17	025.01.600 → 46	028.01.102 → 142
011.05.002 → 35	013.01.400C → 10	014.13.901 → 11	020.08.001 → 17	025.01.800 → 46	028.01.103 → 142
011.05.010 → 35	013.01.500 → 8	015.01.005 → 12	021.01.001 → 20	025.01.901 → 46	028.01.250 → 142
011.05.020 → 35	013.01.500C → 10	015.01.010 → 12	021.01.002 → 20	025.01.902 → 46	028.01.251 → 142
011.05.050 → 35	013.01.901 → 8	015.01.025 → 12	021.01.005 → 20	025.01.905 → 46	028.01.252 → 142

product index

catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page
028.01.300 → 142	030.12.501 → 143	030.45.250 → 145	032.03.500 → 165	037.02.353 → 242	038.03.115 → 99
028.01.500 → 142	030.12.901 → 143	030.45.500 → 145	032.03.901 → 165	037.02.357 → 242	038.03.135 → 99
028.01.501 → 142	030.24.050 → 144	030.45.901 → 145	033.11.160 → 138	037.02.402 → 242	038.03.150 → 99
028.01.502 → 142	030.24.100 → 144	030.46.250 → 145	033.11.250 → 138	037.02.408 → 242	038.03.175 → 99
028.01.901 → 142	030.24.250 → 144	030.46.500 → 145	033.11.252 → 138	037.02.503 → 242	038.03.210 → 99
028.01.902 → 142	030.25.100 → 144	030.46.901 → 145	033.11.253 → 138	037.02.508 → 242	038.04.065 → 99
028.03.050 → 48	030.25.250 → 144	030.47.250 → 145	033.11.400 → 138	037.02.603 → 242	038.04.075 → 99
028.03.100 → 48	030.25.500 → 144	030.47.500 → 145	033.11.402 → 138	037.02.803 → 242	038.04.085 → 99
028.03.250 → 48	030.25.901 → 144	030.47.901 → 145	033.11.403 → 138	037.04.001 → 241	038.04.110 → 99
028.03.500 → 48	030.26.100 → 144	030.47.902 → 145	033.12.160 → 138	037.04.002 → 241	038.04.125 → 99
028.03.901 → 48	030.26.250 → 144	030.49.010 → 145	033.12.250 → 138	037.04.003 → 241	038.04.150 → 99
028.11.053 → 142	030.26.500 → 144	030.49.025 → 145	033.12.252 → 138	037.05.005 → 240	038.05.001 → 100
028.11.103 → 142	030.26.901 → 144	030.49.050 → 145	033.12.253 → 138	037.05.030 → 240	038.06.250 → 102
028.11.252 → 142	030.27.100 → 144	030.49.100 → 145	033.12.400 → 138	037.05.100 → 240	038.06.300 → 102
028.11.502 → 142	030.27.250 → 144	030.49.250 → 145	033.12.402 → 138	037.06.005 → 240	038.06.400 → 102
028.11.901 → 142	030.27.500 → 144	030.52.050 → 145	033.12.403 → 138	037.06.030 → 240	038.07.050 → 98
028.11.902 → 142	030.27.901 → 144	030.52.100 → 145	033.13.160 → 138	037.06.100 → 240	038.07.075 → 98
029.01.050 → 49	030.27.902 → 144	030.52.250 → 145	033.13.250 → 138	037.07.001 → 241	038.07.100 → 98
029.01.100 → 49	030.28.100 → 144	030.53.025 → 145	033.13.252 → 138	037.07.002 → 241	038.07.125 → 98
029.01.250 → 49	030.28.250 → 144	030.53.050 → 145	033.13.253 → 138	037.07.003 → 241	038.07.150 → 98
029.01.500 → 49	030.28.500 → 144	030.53.100 → 145	033.13.400 → 138	037.08.050 → 88	038.08.050 → 99
029.01.901 → 49	030.28.901 → 144	030.54.025 → 145	033.13.402 → 138	037.08.075 → 88	038.08.075 → 99
029.01.902 → 49	030.28.902 → 144	030.54.050 → 145	033.13.403 → 138	037.08.100 → 88	038.08.100 → 99
029.01.904 → 49	030.29.100 → 144	030.54.100 → 145	033.14.160 → 138	037.08.120 → 88	038.08.125 → 99
029.01.906 → 49	030.29.250 → 144	030.55.100 → 147	033.14.250 → 138	037.09.007 → 240	038.08.150 → 99
029.01.910 → 49	030.29.500 → 144	030.55.250 → 147	033.14.252 → 138	037.09.100 → 240	038.09.060 → 98
029.02.050 → 49	030.29.901 → 144	030.55.500 → 147	033.14.253 → 138	037.09.250 → 240	038.09.070 → 98
029.02.100 → 49	030.29.902 → 144	030.55.901 → 147	033.14.400 → 138	037.11.007 → 240	038.09.080 → 98
029.02.250 → 49	030.30.050 → 144	030.56.100 → 147	033.14.402 → 138	037.11.100 → 240	038.09.100 → 98
029.02.500 → 49	030.30.100 → 144	030.56.250 → 147	033.14.403 → 138	037.11.250 → 240	038.09.120 → 98
029.02.901 → 49	030.30.250 → 144	030.56.500 → 147	033.15.160 → 139	037.15.005 → 240	038.11.060 → 100
029.02.902 → 49	030.31.100 → 144	030.56.901 → 147	033.15.253 → 139	037.15.030 → 240	038.11.080 → 100
029.02.904 → 49	030.31.250 → 144	030.57.100 → 146	033.15.403 → 139	037.15.100 → 240	038.11.100 → 100
029.02.906 → 49	030.31.500 → 144	030.57.250 → 146	033.16.160 → 139	037.16.005 → 240	038.11.125 → 100
029.02.910 → 49	030.31.901 → 144	030.57.500 → 146	033.16.253 → 139	037.16.030 → 240	038.11.160 → 100
029.03.001 → 83	030.32.100 → 144	030.57.750 → 146	033.16.403 → 139	037.16.100 → 240	038.12.060 → 100
029.03.002 → 83	030.32.250 → 144	030.57.901 → 146	033.17.160 → 139	037.19.007 → 240	038.12.080 → 100
029.04.001 → 49	030.32.500 → 144	030.58.025 → 146	033.17.163 → 139	037.19.100 → 240	038.12.100 → 100
029.04.002 → 49	030.32.901 → 144	030.58.050 → 146	033.17.250 → 139	037.19.250 → 240	038.12.125 → 100
029.04.003 → 49	030.33.100 → 144	030.58.100 → 146	033.17.253 → 139	037.21.007 → 240	038.12.160 → 100
029.04.004 → 49	030.33.250 → 144	030.58.250 → 146	033.17.400 → 139	037.21.100 → 240	038.13.A30 → 103
029.04.005 → 49	030.33.500 → 144	030.59.050 → 146	033.17.403 → 139	037.21.250 → 240	038.13.A41 → 103
029.14.902 → 49	030.33.901 → 144	030.59.100 → 146	033.18.160 → 139	037.23.070 → 241	038.13.A48 → 103
030.01.050 → 143	030.33.902 → 144	030.59.250 → 146	033.18.163 → 139	037.23.085 → 241	038.13.A54 → 103
030.01.051 → 143	030.34.100 → 144	030.59.500 → 146	033.18.250 → 139	037.23.110 → 241	038.13.A60 → 103
030.01.052 → 143	030.34.250 → 144	030.59.901 → 146	033.18.253 → 139	037.24.045 → 241	038.13.A66 → 103
030.01.053 → 143	030.34.500 → 144	030.60.003 → 133	033.18.400 → 139	037.24.055 → 241	038.13.Q15 → 103
030.01.100 → 143	030.34.901 → 144	030.60.004 → 133	033.18.403 → 139	037.24.065 → 241	038.13.Q24 → 103
030.01.101 → 143	030.34.902 → 144	030.60.005 → 133	035.11.030 → 140	037.25.100 → 241	038.13.Q40 → 103
030.01.102 → 143	030.35.100 → 144	030.60.006 → 133	035.11.070 → 140	037.30.002 → 86	038.13.S35 → 103
030.01.103 → 143	030.35.250 → 144	031.02.050 → 164	035.11.250 → 140	037.30.005 → 86	038.13.S45 → 103
030.01.250 → 143	030.35.500 → 144	031.02.100 → 164	035.11.500 → 140	037.30.010 → 86	038.13.S50 → 103
030.01.251 → 143	030.35.901 → 144	031.02.250 → 164	035.12.030 → 140	037.30.025 → 86	038.14.060 → 100
030.01.252 → 143	030.35.902 → 144	031.02.500 → 164	035.12.070 → 140	037.30.050 → 86	038.14.080 → 100
030.01.500 → 143	030.36.250 → 144	031.02.901 → 164	035.12.250 → 140	037.30.100 → 86	038.14.100 → 100
030.01.501 → 143	030.37.250 → 144	031.02.902 → 164	035.12.500 → 140	037.30.250 → 86	038.14.H30 → 102
030.01.900 → 143	030.37.500 → 144	031.04.050 → 164	035.13.030 → 141	037.30.500 → 86	038.14.H35 → 102
030.01.901 → 143	030.37.901 → 144	031.04.100 → 164	035.13.070 → 141	037.30.901 → 86	038.14.H40 → 102
030.01.902 → 143	030.38.250 → 144	031.04.250 → 164	035.13.250 → 141	037.32.001 → 242	038.14.H46 → 102
030.01.904 → 143	030.38.500 → 144	031.04.500 → 164	035.13.500 → 141	037.33.001 → 242	038.14.H51 → 102
030.02.050 → 143	030.38.901 → 144	031.04.901 → 164	035.14.030 → 141	037.35.025 → 87	038.14.H60 → 102
030.02.051 → 143	030.38.902 → 144	031.04.902 → 164	035.14.070 → 141	037.35.050 → 87	038.14.L30 → 102
030.02.052 → 143	030.39.250 → 144	031.06.050 → 164	035.14.250 → 141	037.35.100 → 87	038.14.L35 → 102
030.02.053 → 143	030.39.500 → 144	031.06.100 → 164	035.14.500 → 141	037.35.150 → 87	038.14.L40 → 102
030.02.100 → 143	030.39.901 → 144	031.06.250 → 164	036.01.030 → 141	037.35.250 → 87	038.14.L45 → 102
030.02.101 → 143	030.40.250 → 144	031.06.500 → 164	036.01.070 → 141	037.35.500 → 87	038.14.L50 → 102
030.02.102 → 143	030.40.500 → 144	031.06.901 → 164	036.01.100 → 141	037.36.001 → 89	038.14.L60 → 102
030.02.103 → 143	030.40.901 → 144	032.01.050 → 165	036.01.150 → 141	037.36.002 → 88	038.14.L70 → 102
030.02.250 → 143	030.41.250 → 144	032.01.100 → 165	036.01.250 → 141	037.36.010 → 88	038.14.M35 → 102
030.02.251 → 143	030.41.500 → 144	032.01.250 → 165	036.01.500 → 141	037.36.025 → 87	038.14.M40 → 102
030.02.252 → 143	030.41.901 → 144	032.01.500 → 165	037.01.050 → 242	037.36.050 → 87	038.14.M45 → 102
030.02.500 → 143	030.41.902 → 144	032.01.901 → 165	037.01.060 → 242	037.36.100 → 87	038.14.M50 → 102
030.02.501 → 143	030.42.250 → 145	032.02.050 → 165	037.01.070 → 242	037.36.150 → 87	038.14.M60 → 102
030.02.900 → 143	030.43.250 → 145	032.02.100 → 165	037.01.080 → 242	037.36.250 → 87	038.14.M70 → 102
030.02.901 → 143	030.43.500 → 145	032.02.250 → 165	037.01.100 → 242	037.36.500 → 87	038.14.M82 → 102
030.02.902 → 143	030.43.901 → 145	032.02.500 → 165	037.01.125 → 242	038.02.065 → 99	038.16.060 → 101
030.02.904 → 143	030.44.250 → 145	032.02.901 → 165	037.01.150 → 242	038.02.090 → 99	038.16.080 → 101
030.12.053 → 143	030.44.500 → 145	032.03.050 → 165	037.01.200 → 242	038.02.130 → 99	038.16.100 → 101
030.12.103 → 143	030.44.901 → 145	032.03.100 → 165	037.02.254 → 242	038.02.150 → 99	038.17.001 → 103
030.12.252 → 143	030.44.902 → 145	032.03.250 → 165	037.02.305 → 242	038.02.180 → 99	038.18.065 → 98

product index

catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page
038.18.085 → 98	040.02.902 → 157	043.02.033 → 162	047.30.150 → 84	050.01.001 → 104	051.21.006 → 113
038.18.110 → 98	040.05.001 → 157	043.02.034 → 162	047.30.180 → 84	050.01.002 → 104	051.21.007 → 113
038.18.125 → 98	040.05.002 → 157	043.02.051 → 162	047.30.210 → 84	050.01.003 → 104	051.21.008 → 113
038.18.150 → 98	040.05.003 → 157	043.02.052 → 162	047.32.150 → 89	050.01.004 → 105	051.21.009 → 113
038.19.035 → 102	040.05.004 → 157	043.02.053 → 162	047.32.180 → 89	050.02.001 → 105	051.21.010 → 113
038.19.043 → 102	040.06.001 → 158	043.02.054 → 162	047.32.210 → 89	050.03.001 → 105	051.22.001 → 112
038.19.046 → 102	040.10.001 → 152	043.03.001 → 160	047.33.150 → 89	050.04.001 → 79	051.22.002 → 112
038.19.052 → 102	040.10.005 → 110	043.03.002 → 160	047.33.180 → 89	050.04.002 → 79	051.22.003 → 112
038.19.060 → 102	040.10.015 → 152	043.03.003 → 160	047.33.210 → 89	050.05.150 → 79	051.22.004 → 112
038.19.068 → 102	041.01.040 → 154	043.03.004 → 160	048.01.105 → 90	050.05.200 → 79	051.22.005 → 112
038.20.025 → 103	041.01.060 → 154	043.03.005 → 160	048.01.115 → 90	050.06.001 → 78	051.22.006 → 112
038.20.046 → 103	041.01.080 → 154	043.05.001 → 160	048.01.130 → 90	050.07.050 → 79	051.22.007 → 112
038.20.055 → 103	041.01.100 → 154	043.05.101 → 161	048.01.145 → 90	050.07.060 → 79	051.22.008 → 112
038.21.040 → 103	041.01.120 → 154	043.05.103 → 161	048.01.160 → 90	050.08.075 → 105	051.22.009 → 112
038.21.050 → 103	041.01.150 → 154	043.05.106 → 161	048.01.200 → 90	050.08.100 → 105	051.22.010 → 112
038.21.060 → 103	041.02.040 → 154	043.06.001 → 160	048.01.250 → 90	050.09.001 → 104	051.22.011 → 112
039.01.200 → 96	041.02.060 → 154	043.06.011 → 160	048.01.300 → 90	050.10.001 → 105	051.22.012 → 112
039.01.250 → 96	041.02.080 → 154	043.08.015 → 162	048.02.115 → 90	051.03.001 → 114	051.22.013 → 112
039.01.300 → 96	041.02.100 → 154	043.08.030 → 162	048.02.130 → 90	051.03.002 → 114	051.22.014 → 112
039.02.200 → 96	041.02.120 → 154	043.08.050 → 162	048.02.145 → 90	051.03.003 → 114	051.22.015 → 112
039.02.250 → 96	041.02.150 → 154	043.15.251 → 332	048.02.160 → 90	051.03.004 → 114	051.22.016 → 112
039.02.300 → 96	041.02.200 → 155	043.15.252 → 332	048.03.001 → 91	051.03.005 → 114	051.22.017 → 112
039.05.200 → 97	041.02.250 → 155	043.15.501 → 332	048.03.002 → 91	051.03.006 → 114	051.22.018 → 112
039.05.250 → 97	041.02.300 → 155	043.15.502 → 332	048.04.001 → 91	051.03.007 → 114	051.22.019 → 112
039.05.300 → 97	041.03.080 → 154	043.16.251 → 332	048.06.001 → 94	051.04.001 → 114	051.22.020 → 112
039.06.200 → 97	041.04.080 → 154	043.16.252 → 332	048.06.002 → 94	051.04.002 → 114	051.22.021 → 112
039.06.250 → 97	041.05.040 → 154	043.16.501 → 332	048.07.105 → 90	051.04.003 → 114	051.22.022 → 112
039.06.300 → 97	041.05.060 → 154	043.16.502 → 332	048.07.115 → 90	051.04.004 → 114	051.23.001 → 112
039.07.200 → 97	041.05.080 → 154	043.20.001 → 221	048.07.130 → 90	051.04.005 → 114	051.23.002 → 112
039.07.250 → 97	041.05.100 → 154	043.20.002 → 221	048.07.150 → 90	051.04.006 → 114	051.23.003 → 112
039.07.300 → 97	041.05.120 → 154	043.21.001 → 221	048.07.160 → 90	051.04.007 → 114	051.23.004 → 112
039.08.100 → 125	041.05.150 → 154	043.22.001 → 221	048.07.200 → 90	051.08.010 → 114	051.23.005 → 112
039.08.150 → 125	041.06.080 → 155	043.22.002 → 221	048.08.105 → 90	051.08.012 → 114	051.23.006 → 112
039.08.220 → 125	041.06.100 → 155	045.01.001 → 80	048.08.115 → 90	051.08.014 → 114	051.23.007 → 112
039.08.300 → 125	041.06.120 → 155	045.03.001 → 80	048.08.130 → 90	051.08.019 → 114	051.23.008 → 112
039.12.200 → 96	041.06.150 → 155	045.04.001 → 80	048.10.110 → 91	051.08.024 → 114	051.23.009 → 112
039.12.250 → 96	041.07.065 → 155	045.06.001 → 80	048.11.110 → 91	051.08.029 → 114	051.23.010 → 112
039.12.300 → 96	041.07.080 → 155	046.01.001 → 82	048.22.130 → 92	051.09.45B → 114	051.23.011 → 112
039.16.001 → 97	041.07.100 → 155	046.01.002 → 82	048.22.160 → 92	051.09.45G → 114	051.23.012 → 112
039.20.001 → 124	041.07.120 → 155	046.05.001 → 82	048.23.130 → 92	051.09.45R → 114	051.23.013 → 112
039.20.002 → 124	041.07.150 → 155	046.05.002 → 82	048.23.160 → 92	051.09.45Y → 114	051.23.014 → 112
039.20.003 → 124	041.08.060 → 155	046.07.001 → 81	048.24.130 → 92	051.10.001 → 115	051.23.015 → 112
039.21.001 → 125	041.08.080 → 155	047.01.120 → 84	048.24.160 → 92	051.10.002 → 115	051.23.016 → 112
039.21.002 → 125	041.08.100 → 155	047.01.150 → 84	048.25.130 → 93	051.10.003 → 115	051.23.017 → 112
039.21.003 → 125	041.08.120 → 155	047.01.180 → 84	048.26.130 → 93	051.10.004 → 115	051.23.018 → 112
039.21.004 → 125	042.01.070 → 158	047.01.210 → 84	048.30.130 → 92	051.10.005 → 115	051.23.019 → 112
039.21.005 → 125	042.01.090 → 158	047.01.250 → 84	048.30.160 → 92	051.11.001 → 115	051.23.020 → 112
039.23.001 → 177	042.01.110 → 158	047.01.300 → 84	048.30.200 → 92	051.11.002 → 115	051.23.021 → 112
039.23.002 → 177	042.02.070 → 158	047.02.150 → 84	048.31.001 → 93	051.11.003 → 115	051.23.022 → 112
039.23.003 → 177	042.02.090 → 158	047.02.180 → 84	048.40.001 → 94	051.11.004 → 115	051.24.001 → 113
039.30.001 → 124	042.02.110 → 158	047.02.210 → 84	048.40.002 → 94	051.11.005 → 115	051.24.002 → 113
039.30.002 → 124	042.03.040 → 156	047.03.150 → 85	048.50.001 → 95	051.12.001 → 115	051.24.003 → 113
039.30.003 → 124	042.03.060 → 156	047.03.180 → 85	048.50.002 → 95	051.13.001 → 115	051.24.004 → 113
039.30.004 → 124	042.03.080 → 156	047.03.210 → 85	048.50.003 → 95	051.20.001 → 112	051.24.005 → 113
039.30.005 → 124	042.03.100 → 156	047.05.001 → 85	048.51.010 → 95	051.20.002 → 112	051.24.006 → 113
039.31.001 → 124	042.04.040 → 156	047.05.002 → 85	048.51.011 → 95	051.20.003 → 112	051.24.007 → 113
039.31.002 → 124	042.04.060 → 156	047.06.150 → 84	048.51.021 → 95	051.20.004 → 112	051.24.008 → 113
039.32.300 → 126	042.04.080 → 156	047.06.180 → 84	049.01.130 → 78	051.20.005 → 112	051.24.009 → 113
039.32.500 → 126	042.04.100 → 156	047.06.210 → 84	049.01.150 → 78	051.20.006 → 112	051.24.009 → 333
039.33.098 → 126	042.05.001 → 156	047.07.130 → 84	049.01.200 → 78	051.20.007 → 112	051.26.001 → 113
039.33.140 → 126	042.06.001 → 156	047.07.150 → 84	049.03.115 → 78	051.20.008 → 112	051.26.002 → 113
039.33.160 → 126	042.06.010 → 156	047.07.185 → 84	049.03.150 → 78	051.20.009 → 112	051.26.003 → 113
039.33.250 → 126	043.01.051 → 162	047.07.210 → 84	049.04.175 → 79	051.20.010 → 112	051.26.004 → 113
039.33.290 → 126	043.01.052 → 162	047.07.250 → 84	049.05.060 → 101	051.20.011 → 112	051.26.005 → 113
039.33.300 → 126	043.01.053 → 162	047.07.300 → 84	049.05.100 → 101	051.20.012 → 112	051.26.006 → 113
039.34.105 → 126	043.01.054 → 162	047.08.150 → 85	049.05.150 → 101	051.20.013 → 112	051.26.007 → 113
039.34.150 → 126	043.01.071 → 162	047.08.180 → 85	049.05.300 → 101	051.20.014 → 112	051.26.008 → 113
039.35.075 → 126	043.01.072 → 162	047.08.210 → 85	049.05.900 → 101	051.20.015 → 112	052.06.006 → 109
039.35.145 → 126	043.01.073 → 162	047.09.100 → 85	049.06.004 → 78	051.20.016 → 112	052.06.010 → 109
039.35.200 → 126	043.01.074 → 162	047.09.130 → 85	049.06.005 → 78	051.20.017 → 112	052.06.014 → 109
039.35.200 → 177	043.01.121 → 162	047.09.150 → 85	049.06.006 → 78	051.20.018 → 112	052.08.001 → 110
040.01.100 → 157	043.01.122 → 162	047.09.180 → 85	049.07.004 → 78	051.20.019 → 112	052.08.002 → 93
040.01.250 → 157	043.01.123 → 162	047.09.210 → 85	049.07.005 → 78	051.20.020 → 112	052.09.001 → 107
040.01.500 → 157	043.01.124 → 162	047.10.075 → 85	049.07.006 → 78	051.20.021 → 112	052.09.002 → 107
040.01.901 → 157	043.01.501 → 162	047.10.100 → 85	049.08.070 → 101	051.20.022 → 112	052.09.003 → 107
040.01.902 → 157	043.01.502 → 162	047.10.150 → 85	049.08.085 → 101	051.21.001 → 113	052.09.004 → 107
040.02.100 → 157	043.01.503 → 162	047.10.200 → 85	049.08.110 → 101	051.21.002 → 113	052.09.005 → 107
040.02.250 → 157	043.01.504 → 162	047.10.300 → 85	049.09.180 → 78	051.21.003 → 113	052.09.006 → 107
040.02.500 → 157	043.02.031 → 162	047.18.001 → 88	049.09.250 → 78	051.21.004 → 113	052.10.001 → 106
040.02.901 → 157	043.02.032 → 162	047.18.002 → 88	049.09.320 → 78	051.21.005 → 113	052.10.002 → 106

product index

catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page
052.10.003 → 106	057.01.030 → 250	061.02.920 → 50	061.24.500 → 55	062.22.920 → 60	062.80.001 → 196
052.10.004 → 106	057.01.035 → 250	061.07.050 → 53	061.24.901 → 55	062.25.910 → 61	062.80.901 → 196
052.10.005 → 106	057.01.040 → 250	061.07.100 → 53	061.25.125 → 55	062.25.911 → 61	062.80.903 → 196
052.10.006 → 106	057.01.045 → 250	061.07.250 → 53	061.25.250 → 55	062.25.915 → 61	062.80.905 → 196
052.10.007 → 106	057.01.050 → 250	061.07.500 → 53	061.25.500 → 55	062.25.920 → 61	062.80.912 → 196
052.10.008 → 106	057.01.060 → 250	061.07.901 → 53	061.25.901 → 55	062.25.921 → 61	062.80.925 → 196
052.11.001 → 106	057.01.070 → 250	061.07.902 → 53	061.26.125 → 55	062.25.925 → 61	063.01.010 → 128
052.11.002 → 106	057.01.080 → 250	061.08.050 → 53	061.26.250 → 55	062.27.905 → 60	063.01.012 → 128
052.11.003 → 106	057.02.001 → 251	061.08.100 → 53	061.26.500 → 55	062.27.910 → 60	063.01.014 → 128
052.11.004 → 106	057.02.002 → 251	061.08.250 → 53	061.26.901 → 55	062.27.920 → 60	063.01.019 → 128
052.12.001 → 106	057.02.100 → 69	061.08.500 → 53	061.27.125 → 55	062.28.905 → 61	063.01.024 → 128
052.12.002 → 106	057.02.101 → 69	061.08.901 → 53	061.27.250 → 55	062.28.910 → 61	063.01.029 → 128
052.12.003 → 106	057.03.200 → 250	061.08.902 → 53	061.27.500 → 55	062.28.915 → 61	063.01.034 → 128
052.12.004 → 106	057.03.250 → 250	061.09.0B1 → 53	061.27.901 → 55	062.28.920 → 61	063.01.045 → 128
052.12.005 → 106	057.03.300 → 250	061.09.0G1 → 53	061.28.125 → 55	062.28.925 → 61	063.02.010 → 128
052.12.006 → 106	057.04.250 → 250	061.09.0R1 → 53	061.28.250 → 55	062.30.002 → 185	063.02.012 → 128
052.12.007 → 106	057.04.251 → 251	061.09.0Y1 → 53	061.28.500 → 55	062.31.001 → 69	063.02.014 → 128
052.12.008 → 106	057.05.020 → 250	061.10.050 → 51	061.28.901 → 55	062.31.002 → 69	063.02.019 → 128
052.13.001 → 107	057.05.025 → 250	061.10.100 → 51	061.29.040 → 58	062.34.006 → 70	063.02.024 → 128
052.13.002 → 107	057.05.030 → 250	061.10.250 → 51	061.29.105 → 58	062.36.910 → 68	063.02.029 → 128
052.13.003 → 107	057.05.035 → 250	061.10.500 → 51	061.29.370 → 58	062.36.920 → 68	063.02.034 → 128
052.13.004 → 107	057.05.040 → 250	061.10.901 → 51	061.29.720 → 58	062.36.930 → 68	063.02.045 → 128
052.13.005 → 107	057.06.037 → 250	061.11.050 → 51	061.29.901 → 58	062.38.904 → 69	063.04.010 → 137
052.13.006 → 107	058.01.001 → 116	061.11.100 → 51	061.31.100 → 50	062.38.915 → 69	063.04.012 → 137
052.13.007 → 107	058.01.002 → 116	061.11.250 → 51	061.31.250 → 50	062.38.945 → 69	063.04.014 → 137
052.13.008 → 107	058.02.001B → 117	061.11.500 → 51	061.31.500 → 50	062.39.900 → 68	063.04.019 → 137
052.13.009 → 107	058.02.001P → 117	061.11.901 → 51	061.31.901 → 50	062.39.901 → 68	063.04.024 → 137
052.14.001 → 106	058.02.001R → 117	061.13.001 → 58	061.41.500 → 57	062.39.902 → 68	063.04.029 → 137
052.14.002 → 106	058.02.002 → 118	061.13.002 → 58	061.41.901 → 57	062.39.903 → 68	063.04.034 → 137
052.14.003 → 106	058.02.101 → 117	061.13.004 → 58	061.41.902 → 57	062.39.905 → 68	063.04.045 → 137
052.15.010B → 108	058.03.001 → 116	061.13.006 → 58	061.41.905 → 57	062.39.907 → 68	063.05.001 → 147
052.15.010O → 108	058.04.001 → 118	061.13.008 → 58	061.42.125 → 57	062.39.910 → 68	063.14.014 → 137
052.15.010R → 108	058.05.080 → 118	061.14.025 → 54	061.42.250 → 57	062.39.913 → 68	063.14.019 → 137
052.15.015B → 108	058.05.100 → 118	061.14.060 → 54	061.42.500 → 57	062.40.901 → 184	063.14.024 → 137
052.15.015O → 108	058.05.125 → 118	061.14.120 → 54	061.42.901 → 57	062.40.902 → 184	063.14.029 → 137
052.15.015R → 108	058.05.150 → 118	061.14.300 → 54	061.42.902 → 57	062.40.905 → 184	063.14.034 → 137
052.15.020B → 108	058.06.001 → 137	061.14.600 → 54	061.42.911 → 57	062.42.910 → 184	063.14.045 → 137
052.15.020O → 108	058.07.001 → 120	061.14.901 → 54	061.46.901 → 56	062.42.915 → 184	063.16.001 → 137
052.15.020R → 108	059.02.001 → 222	061.14.906 → 54	061.46.902 → 56	062.42.920 → 184	063.16.002 → 137
052.16.012 → 109	059.02.002 → 222	061.14.912 → 54	061.47.050 → 56	062.50.500 → 63	064.11.001 → 128
052.16.016 → 109	059.02.003 → 222	061.14.931 → 54	061.47.125 → 56	062.51.500 → 63	064.11.002 → 128
052.16.020 → 109	059.02.004 → 222	061.15.100 → 52	061.47.250 → 56	062.51.501 → 63	064.11.003 → 128
052.16.025 → 109	059.03.003 → 225	061.15.250 → 52	061.47.500 → 56	062.51.502 → 63	064.11.004 → 128
052.17.012 → 109	059.03.004 → 225	061.15.500 → 52	061.47.901 → 56	062.52.500 → 63	064.11.005 → 128
052.17.020 → 109	059.05.001 → 222	061.15.901 → 52	062.02.100 → 65	062.53.500 → 63	064.11.006 → 128
052.17.030 → 109	059.05.001 → 270	061.15.902 → 52	062.03.100 → 65	062.54.500 → 63	064.11.007 → 128
052.18.001 → 110	060.01.001 → 223	061.16.100 → 52	062.04.100 → 65	062.55.500 → 63	064.11.008 → 128
052.20.003 → 111	060.01.002 → 223	061.16.250 → 52	062.04.101 → 65	062.56.500 → 63	064.11.009 → 128
052.20.006 → 111	060.01.003 → 224	061.16.500 → 52	062.05.05B → 62	062.57.500 → 63	064.11.010 → 128
052.20.009 → 111	060.02.001 → 224	061.16.901 → 52	062.05.05G → 62	062.58.500 → 63	064.11.011 → 128
052.21.003 → 111	060.03.001 → 224	061.16.902 → 52	062.05.05R → 62	062.60.901 → 184	064.11.012 → 128
052.21.006 → 111	060.03.002 → 223	061.17.100 → 52	062.05.05Y → 62	062.60.902 → 184	064.12.001 → 128
052.21.009 → 111	060.04.001 → 82	061.17.250 → 52	062.05.100 → 62	062.60.903 → 184	064.12.002 → 128
052.22.006 → 111	061.01.100 → 50	061.17.500 → 52	062.05.250 → 62	062.60.905 → 184	064.12.003 → 128
052.22.008 → 111	061.01.100C → 51	061.17.901 → 52	062.05.500 → 62	062.60.909 → 184	064.12.004 → 128
052.22.010 → 111	061.01.250 → 50	061.17.902 → 52	062.05.901 → 62	062.60.918 → 184	064.12.005 → 128
052.23.006 → 111	061.01.250C → 51	061.18.100 → 52	062.08.250 → 64	062.61.909 → 184	064.12.006 → 128
052.23.008 → 111	061.01.500 → 50	061.18.250 → 52	062.08.500 → 64	062.61.914 → 184	064.12.007 → 128
052.23.010 → 111	061.01.500C → 51	061.18.500 → 52	062.09.05B → 62	062.62.910 → 184	064.12.008 → 128
052.24.006 → 111	061.01.901 → 50	061.18.901 → 52	062.09.05G → 62	062.62.915 → 184	064.12.009 → 128
052.24.008 → 111	061.01.901C → 51	061.18.902 → 52	062.09.05R → 62	062.66.001 → 66	064.12.010 → 128
052.24.010 → 111	061.01.902 → 50	061.19.125 → 58	062.09.05Y → 62	062.66.002 → 67	064.12.011 → 128
052.25.006 → 111	061.01.902C → 51	061.19.250 → 58	062.10.010 → 64	062.66.003 → 67	064.12.012 → 128
052.25.008 → 111	061.01.903 → 50	061.19.500 → 58	062.10.015 → 64	062.66.004 → 67	065.10.001 → 334
052.25.010 → 111	061.01.905 → 50	061.19.901 → 58	062.10.020 → 64	062.66.005 → 71	065.10.004 → 334
052.30.001 → 94	061.01.910 → 50	061.20.001 → 53	062.10.030 → 64	062.66.500 → 66	065.10.006 → 334
055.01.001 → 226	061.01.920 → 50	061.21.125 → 55	062.11.250 → 64	062.66.901 → 66	065.18.001 → 130
055.02.001 → 226	061.02.100 → 50	061.21.250 → 55	062.11.500 → 64	062.66.902 → 66	065.18.002 → 130
055.03.001 → 226	061.02.100C → 51	061.21.500 → 55	062.12.050 → 65	062.70.905 → 185	065.18.003 → 130
055.04.001 → 226	061.02.250 → 50	061.21.901 → 55	062.12.100 → 65	062.70.918 → 185	065.18.004 → 130
055.32.001 → 111	061.02.250C → 51	061.22.125 → 55	062.13.050 → 65	062.70.935 → 185	065.19.141 → 128
055.32.002 → 111	061.02.500 → 50	061.22.250 → 55	062.13.100 → 65	062.70.950 → 185	065.19.142 → 128
056.01.001 → 226	061.02.500C → 51	061.22.500 → 55	062.21.902 → 60	062.71.907 → 185	065.19.291 → 128
056.02.001 → 227	061.02.901 → 50	061.22.901 → 55	062.21.903 → 60	062.71.911 → 185	065.19.292 → 128
056.03.001 → 227	061.02.901C → 51	061.23.125 → 55	062.21.905 → 60	062.71.918 → 185	065.19.293 → 128
056.04.001 → 227	061.02.902 → 50	061.23.250 → 55	062.21.910 → 60	062.71.930 → 185	065.21.014 → 128
057.01.010 → 250	061.02.902C → 51	061.23.500 → 55	062.21.920 → 60	062.72.908 → 185	065.21.029 → 128
057.01.015 → 250	061.02.903 → 50	061.23.901 → 55	062.21.930 → 60	062.72.912 → 185	065.22.014 → 129
057.01.020 → 250	061.02.905 → 50	061.24.125 → 55	062.22.905 → 60	062.72.916 → 185	065.22.029 → 129
057.01.025 → 250	061.02.910 → 50	061.24.250 → 55	062.22.910 → 60	062.72.930 → 185	065.23.014 → 129

product index

catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page
065.23.029 → 129	065.57.002 → 133	074.01.004 → 357	076.05.002 → 347	078.20.015W → 299	080.01.002B → 289
065.24.014 → 129	065.57.003 → 133	074.01.005 → 357	076.05.003 → 347	078.20.050W → 299	080.01.002B → 311
065.24.029 → 129	065.57.004 → 133	074.02.001 → 357	076.05.004 → 347	078.21.015B → 299	080.01.002P → 289
065.25.014 → 129	065.58.001 → 133	074.03.001 → 357	077.01.000 → 72	078.21.015G → 299	080.01.002P → 311
065.25.029 → 129	065.58.002 → 133	074.03.002 → 357	077.01.001 → 72	078.21.015P → 299	080.01.002R → 289
065.26.014 → 129	065.58.003 → 133	074.03.003 → 357	077.01.002 → 72	078.21.015W → 299	080.01.002R → 311
065.26.029 → 129	065.58.004 → 133	074.03.004 → 357	077.01.003 → 72	078.21.015Y → 299	080.01.003B → 306
065.27.014 → 129	065.60.100 → 135	074.03.005 → 357	077.01.004 → 72	078.21.050B → 299	080.01.003P → 306
065.27.029 → 129	065.60.150 → 135	074.04.001 → 357	077.01.005 → 72	078.21.050G → 299	080.01.003R → 306
065.28.014 → 129	065.62.100 → 135	074.04.002 → 357	077.01.006 → 72	078.21.050P → 299	080.01.004B → 305
065.28.029 → 129	065.62.130 → 135	074.04.003 → 357	077.01.007 → 72	078.21.050W → 299	080.01.004P → 305
065.29.014 → 129	065.62.180 → 135	074.04.004 → 357	077.01.008 → 72	078.21.050Y → 299	080.01.004R → 305
065.29.029 → 129	065.63.100 → 135	074.04.005 → 357	077.01.021 → 72	079.01.001 → 74	080.01.005B → 304
065.30.014 → 134	065.63.130 → 135	074.07.001 → 356	077.01.031 → 72	079.01.001B → 74	080.01.005P → 304
065.30.029 → 134	065.63.180 → 135	074.07.002 → 356	077.02.001 → 72	079.01.001O → 74	080.01.005R → 304
065.31.014 → 134	065.66.125 → 135	074.07.003 → 356	077.02.002 → 72	079.01.001R → 74	080.01.006B → 304
065.31.029 → 134	065.66.250 → 135	075.00.001 → 341	077.02.003 → 72	079.01.001W → 74	080.01.006P → 304
065.32.014 → 134	065.66.500 → 135	075.00.002 → 341	077.02.004 → 72	079.01.002 → 74	080.01.006R → 304
065.32.029 → 134	065.66.901 → 135	075.00.003 → 341	077.02.005 → 72	079.01.002B → 74	080.01.007B → 305
065.33.014 → 134	065.67.001 → 135	075.00.004 → 341	077.02.006 → 72	079.01.002O → 74	080.01.007P → 305
065.33.029 → 134	065.67.002 → 135	075.00.005 → 341	077.03.001 → 72	079.01.002R → 74	080.01.007R → 305
065.34.014 → 131	065.67.011 → 135	075.00.006 → 341	077.03.002 → 72	079.01.002W → 74	080.01.101 → 305
065.34.029 → 131	065.67.022 → 135	075.00.007 → 341	077.04.001 → 73	079.01.003 → 74	080.02.001 → 301
065.36.014 → 133	065.70.001 → 136	075.01.001 → 341	077.04.002 → 73	079.01.003B → 74	080.04.001 → 73
065.36.019 → 133	065.71.001 → 136	075.01.002 → 341	077.04.003 → 73	079.01.003O → 74	080.04.002 → 73
065.36.024 → 133	066.10.001 → 140	075.01.003 → 341	077.04.004 → 73	079.01.003R → 74	080.05.001 → 213
065.36.029 → 133	066.10.003 → 140	075.01.004 → 341	077.04.005 → 73	079.01.003W → 74	080.05.002 → 213
065.37.014 → 130	066.10.004 → 140	075.01.005 → 341	077.04.006 → 73	079.01.004 → 74	080.06.002B → 307
065.37.029 → 130	066.11.001 → 140	075.01.006 → 341	078.01.001 → 73	079.01.004B → 74	080.06.002P → 307
065.38.014 → 130	066.11.002 → 140	075.01.007 → 341	078.01.002 → 73	079.01.004O → 74	080.06.002R → 307
065.38.029 → 130	066.11.003 → 140	075.02.005 → 341	078.02.001 → 292	079.01.004R → 74	080.10.101 → 216
065.39.014 → 134	066.11.004 → 140	075.02.006 → 341	078.02.002 → 292	079.01.004W → 74	080.10.201 → 216
065.39.029 → 134	066.11.005 → 140	075.02.007 → 341	078.02.003 → 292	079.01.005 → 74	080.11.001 → 217
065.40.014 → 134	067.30.001 → 136	075.02.008 → 341	078.02.004 → 292	079.01.005B → 74	080.13.001 → 216
065.40.029 → 134	069.03.005 → 206	075.02.009 → 341	078.02.005 → 294	079.01.005O → 74	080.15.001 → 212
065.41.014 → 131	069.03.175 → 209	075.03.001 → 340	078.02.006 → 294	079.01.005R → 74	080.15.002 → 212
065.41.019 → 131	069.03.660 → 208	075.03.002 → 340	078.02.007 → 292	079.01.005W → 74	080.15.003 → 212
065.41.024 → 131	069.04.001 → 207	075.04.001 → 340	078.02.008 → 292	079.01.006B → 74	080.15.004 → 212
065.41.029 → 131	069.04.002 → 207	075.05.001 → 341	078.02.009 → 294	079.01.006O → 74	080.16.001 → 213
065.42.001 → 130	069.04.175 → 209	075.05.002 → 341	078.02.101 → 330	079.01.006R → 74	080.16.002 → 213
065.42.002 → 130	069.04.660 → 208	075.05.003 → 341	078.02.102 → 330	079.01.006W → 74	080.16.003 → 213
065.42.003 → 130	069.05.001 → 209	075.05.004 → 341	078.02.103 → 330	079.01.101 → 76	080.16.004 → 213
065.42.004 → 130	069.05.175 → 209	076.01.001B → 343	078.03.001 → 302	079.01.102 → 76	080.17.001 → 217
065.43.001 → 130	069.05.660 → 208	076.01.001G → 343	078.03.002 → 302	079.01.103 → 76	080.17.002 → 217
065.43.002 → 130	071.01.002 → 188	076.01.001R → 343	078.03.003 → 302	079.01.104 → 76	080.18.001 → 217
065.43.003 → 130	071.01.003 → 188	076.01.001W → 343	078.03.004 → 302	079.01.105 → 76	080.18.002 → 217
065.43.004 → 130	071.01.004 → 188	076.01.001Y → 343	078.03.021 → 302	079.01.106 → 76	080.21.007 → 214
065.43.005 → 130	071.01.101 → 188	076.01.002 → 342	078.03.022 → 302	079.02.001 → 77	080.21.008 → 214
065.43.006 → 130	071.01.102 → 188	076.01.003 → 343	078.03.023 → 302	079.02.002 → 77	080.21.009 → 214
065.44.001 → 130	071.02.001 → 180	076.02.000B → 344	078.03.024 → 302	079.02.003 → 77	080.21.010 → 214
065.44.002 → 130	071.02.002 → 180	076.02.000O → 344	078.05.002 → 302	079.03.001B → 75	080.22.007 → 214
065.44.003 → 130	071.02.003 → 180	076.02.000P → 344	078.05.005 → 302	079.03.001O → 75	080.22.008 → 214
065.44.004 → 130	071.02.004 → 180	076.02.000R → 344	078.05.022 → 302	079.03.001R → 75	080.22.009 → 214
065.44.005 → 130	071.02.005 → 180	076.02.000W → 344	078.05.025 → 302	079.03.001W → 75	080.22.010 → 214
065.45.001 → 131	071.02.006 → 180	076.02.001B → 344	078.05.105 → 302	079.03.002B → 75	080.23.007 → 214
065.45.002 → 131	071.03.001 → 182	076.02.001O → 344	078.06.015B → 297	079.03.002O → 75	080.23.008 → 214
065.45.005 → 131	071.05.001 → 181	076.02.001P → 344	078.06.015L → 297	079.03.002R → 75	080.23.009 → 214
065.46.001 → 131	071.05.002 → 181	076.02.001R → 344	078.06.050B → 297	079.03.002W → 75	080.23.010 → 214
065.46.002 → 131	071.05.003 → 181	076.02.001W → 344	078.06.050L → 297	079.03.003B → 75	080.24.007 → 215
065.46.005 → 131	071.05.004 → 181	076.02.002B → 344	078.07.015B → 298	079.03.003B → 300	080.24.008 → 215
065.46.006 → 131	071.05.005 → 181	076.02.002O → 344	078.07.015P → 298	079.03.003O → 75	080.24.009 → 215
065.47.001 → 131	071.06.001 → 182	076.02.002P → 344	078.07.015R → 298	079.03.003R → 75	080.24.010 → 215
065.47.003 → 131	071.06.002 → 182	076.02.002R → 344	078.07.050B → 298	079.03.003W → 75	080.25.007 → 215
065.48.001 → 131	071.06.003 → 182	076.02.002W → 344	078.07.050P → 298	079.03.004B → 75	080.25.008 → 215
065.48.005 → 131	071.07.002 → 183	076.02.012B → 345	078.07.050R → 298	079.03.004O → 75	080.25.009 → 215
065.52.014 → 132	071.07.003 → 183	076.02.012O → 345	078.08.120 → 303	079.03.004R → 75	080.25.010 → 215
065.52.029 → 132	071.10.001 → 189	076.02.012P → 345	078.12.001 → 293	079.03.004W → 75	080.26.007 → 215
065.53.014 → 132	072.01.001 → 270	076.02.012R → 345	078.12.002 → 293	079.03.005B → 75	080.26.008 → 215
065.53.029 → 132	072.01.002 → 270	076.02.012W → 345	078.12.003 → 293	079.03.005B → 300	080.26.009 → 215
065.54.014 → 132	072.01.003 → 270	076.02.101 → 344	078.12.004 → 293	079.03.005O → 75	080.26.010 → 215
065.54.029 → 132	072.01.004 → 270	076.02.201 → 345	078.12.005 → 294	079.03.005R → 75	080.31.001 → 218
065.55.001 → 132	072.01.005 → 270	076.02.202 → 345	078.12.006 → 294	079.03.005W → 75	080.31.002 → 218
065.55.002 → 132	072.01.006 → 270	076.02.203 → 345	078.12.007 → 293	079.03.006B → 300	080.31.003 → 218
065.55.003 → 132	073.01.001 → 356	076.02.204 → 345	078.12.008 → 293	079.04.001 → 300	080.31.004 → 218
065.55.004 → 132	073.03.001 → 356	076.03.001B → 346	078.12.009 → 294	079.08.015B → 296	080.31.005 → 218
065.56.001 → 132	073.05.001 → 356	076.03.001G → 346	078.17.001 → 303	079.08.015L → 296	080.40.001 → 203
065.56.002 → 132	073.06.001 → 356	076.03.001W → 346	078.17.002 → 303	079.08.050B → 296	080.40.002B → 202
065.56.003 → 132	074.01.001 → 357	076.03.001Y → 346	078.17.003 → 303	079.08.050L → 296	080.40.002G → 202
065.56.004 → 132	074.01.002 → 357	076.04.001 → 347	078.18.001 → 303	079.11.016 → 77	080.40.002P → 202
065.57.001 → 133	074.01.003 → 357	076.05.001 → 347	078.19.001 → 303	080.01.001 → 301	080.40.002R → 202

product index

catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page
080.40.003 → 202	083.03.002 → 18	092.24.212O → 314	094.11.050 → 279	094.43.025 → 280	095.11.001 → 284
080.40.004 → 204	083.03.002 → 324	092.24.212W → 314	094.11.100 → 279	094.43.050 → 280	095.11.003 → 284
080.40.006 → 205	083.03.005 → 18	092.24.506B → 314	094.11.250 → 279	094.43.100 → 280	095.12.007 → 286
080.40.007 → 205	083.03.005 → 324	092.25.002B → 315	094.11.500 → 279	094.43.250 → 280	095.12.008 → 286
080.40.010 → 207	083.03.010 → 18	092.25.002L → 315	094.12.005 → 279	094.43.500 → 280	095.95.001 → 285
080.40.011 → 203	083.03.010 → 324	092.25.002O → 315	094.12.010 → 279	094.43.901 → 280	095.95.002 → 285
080.40.021 → 203	083.03.025 → 18	092.25.002W → 315	094.12.025 → 279	094.43.902 → 280	096.00.001 → 283
080.40.101 → 205	083.03.025 → 324	092.25.005B → 315	094.12.050 → 279	094.43.905 → 280	096.00.002 → 283
080.40.102 → 204	083.03.050 → 18	092.35.003 → 309	094.12.100 → 279	094.43.910 → 280	096.00.003 → 283
080.41.001 → 210	083.03.050 → 324	093.01.001G → 312	094.12.250 → 279	094.51.005 → 280	096.01.001 → 285
080.41.002 → 210	084.01.001 → 19	093.01.001P → 312	094.12.500 → 279	094.51.010 → 280	096.01.002 → 285
080.41.003 → 210	084.01.002 → 19	093.01.001R → 312	094.13.005 → 279	094.51.025 → 280	096.01.003 → 285
080.44.001 → 211	084.02.001 → 19	093.01.002B → 312	094.13.010 → 279	094.51.050 → 280	096.02.001 → 286
080.44.101 → 211	084.02.003 → 19	094.01.001 → 268	094.13.025 → 279	094.51.100 → 280	096.02.002 → 286
080.45.001 → 211	084.03.001 → 19	094.01.002 → 268	094.13.050 → 279	094.51.250 → 280	096.02.003 → 286
080.45.101 → 211	084.05.001 → 71	094.01.003 → 268	094.13.100 → 279	094.51.500 → 280	096.02.004 → 286
080.50.001 → 198	084.22.001 → 19	094.01.004 → 268	094.13.250 → 279	094.51.901 → 280	096.03.001 → 288
080.50.011 → 198	084.22.003 → 19	094.01.005 → 268	094.13.500 → 279	094.51.902 → 280	096.05.001 → 288
080.51.003 → 198	085.01.001 → 359	094.01.006 → 268	094.14.005 → 279	094.51.905 → 280	096.05.003 → 287
080.51.004 → 198	085.02.001 → 359	094.01.007 → 268	094.14.010 → 279	094.51.910 → 280	096.05.004 → 287
080.51.005 → 198	085.03.001 → 359	094.01.008 → 268	094.14.025 → 279	094.52.005 → 280	096.05.011 → 289
080.51.006 → 198	086.02.001 → 355	094.02.001 → 268	094.14.050 → 279	094.52.010 → 280	096.05.012 → 289
080.52.003 → 199	086.02.002 → 355	094.02.002 → 268	094.14.100 → 279	094.52.025 → 280	097.01.011 → 290
080.52.004 → 199	086.02.003 → 355	094.02.003 → 268	094.14.250 → 279	094.52.050 → 280	097.01.020 → 290
080.52.005 → 199	086.02.004 → 355	094.02.004 → 268	094.14.500 → 279	094.52.100 → 280	097.02.011 → 290
080.52.006 → 199	086.05.001 → 359	094.02.005 → 268	094.21.005 → 279	094.52.250 → 280	097.02.020 → 290
080.53.001 → 199	087.01.001 → 59	094.02.006 → 268	094.21.010 → 279	094.52.500 → 280	097.03.001 → 288
080.53.011 → 199	087.01.002 → 59	094.02.007 → 268	094.21.025 → 279	094.52.901 → 280	097.03.002 → 288
080.53.021 → 199	087.02.001 → 59	094.02.008 → 268	094.21.050 → 279	094.52.902 → 280	097.03.011 → 290
080.53.031 → 199	087.02.002 → 59	094.03.001 → 268	094.21.100 → 279	094.52.905 → 280	097.03.020 → 290
080.65.002 → 183	087.03.001 → 59	094.03.002 → 268	094.21.250 → 279	094.52.910 → 280	097.04.001 → 288
080.65.003 → 206	087.03.002 → 59	094.03.003 → 268	094.21.500 → 279	094.53.005 → 280	097.04.002 → 288
080.65.004 → 183	088.01.001 → 358	094.03.004 → 268	094.22.005 → 279	094.53.010 → 280	097.04.011 → 290
080.66.001 → 200	088.02.001 → 358	094.03.005 → 268	094.22.010 → 279	094.53.025 → 280	097.04.020 → 290
080.66.002 → 200	088.02.002 → 358	094.03.006 → 268	094.22.025 → 279	094.53.050 → 280	097.05.106 → 283
080.66.003 → 200	088.02.003 → 358	094.03.007 → 268	094.22.050 → 279	094.53.100 → 280	097.05.106 → 286
080.66.004 → 201	088.03.001 → 358	094.03.008 → 268	094.22.100 → 279	094.53.250 → 280	097.05.107 → 283
080.66.005 → 201	089.03.012B → 323	094.04.001 → 268	094.22.250 → 279	094.53.500 → 280	097.05.107 → 286
080.66.006 → 201	089.03.012P → 323	094.04.002 → 268	094.22.500 → 279	094.53.901 → 280	097.05.108 → 283
080.67.001 → 183	089.03.012R → 323	094.04.003 → 268	094.31.005 → 278	094.53.902 → 280	097.05.108 → 286
080.75.001 → 201	089.03.013 → 323	094.04.004 → 268	094.31.010 → 278	094.53.905 → 280	097.05.109 → 284
080.76.001 → 200	089.08.001 → 322	094.04.005 → 268	094.31.020 → 278	094.91.002 → 281	097.05.109 → 284
081.01.060 → 348	091.11.102 → 308	094.04.006 → 268	094.31.050 → 278	094.91.005 → 281	097.05.109 → 286
081.01.080 → 348	091.11.105 → 308	094.04.007 → 268	094.31.100 → 278	094.91.010 → 281	097.05.110 → 284
081.01.100 → 348	091.15.001 → 309	094.04.008 → 268	094.31.250 → 278	094.91.020 → 281	097.05.110 → 284
081.01.120 → 348	091.15.002 → 309	094.05.001 → 269	094.32.005 → 278	094.92.001 → 281	097.05.110 → 286
081.01.150 → 348	091.15.003 → 309	094.05.002 → 269	094.32.010 → 278	094.92.005 → 281	097.05.111 → 284
081.02.061 → 348	091.15.004 → 309	094.05.003 → 269	094.32.020 → 278	094.92.010 → 281	097.05.111 → 284
081.02.091 → 348	091.15.005 → 309	094.05.004 → 269	094.32.050 → 278	094.92.020 → 281	097.05.111 → 286
081.02.092 → 348	091.21.102 → 308	094.05.005 → 269	094.32.100 → 278	094.92.050 → 281	098.01.001 → 274
081.02.093 → 348	091.21.105 → 308	094.05.006 → 269	094.32.250 → 278	095.00.001 → 283	098.01.002 → 274
081.02.094 → 348	092.01.001B → 310	094.05.007 → 269	094.33.010 → 278	095.00.002 → 283	098.01.003 → 274
081.02.121 → 348	092.01.001P → 310	094.05.008 → 269	094.33.020 → 278	095.00.003 → 283	098.01.004 → 274
081.02.161 → 348	092.01.001R → 310	094.06.001 → 269	094.33.050 → 278	095.00.004 → 283	098.01.005 → 274
081.02.191 → 348	092.16.001 → 317	094.06.002 → 269	094.33.100 → 278	095.01.001 → 283	098.01.006 → 274
081.02.192 → 348	092.16.002 → 317	094.06.003 → 269	094.33.250 → 278	095.01.002 → 283	098.01.007 → 275
081.02.193 → 348	092.18.001 → 316	094.06.004 → 269	094.41.005 → 280	095.01.003 → 284	098.01.008 → 275
081.02.194 → 348	092.18.003 → 316	094.06.005 → 269	094.41.010 → 280	095.01.004 → 284	098.01.009 → 275
081.02.221 → 348	092.18.008 → 322	094.06.006 → 269	094.41.025 → 280	095.01.005 → 283	098.01.010 → 275
081.03.060 → 350	092.19.001 → 317	094.06.007 → 269	094.41.050 → 280	095.01.006 → 283	098.01.011 → 275
081.03.090 → 350	092.19.004 → 317	094.06.008 → 269	094.41.100 → 280	095.02.001 → 285	098.01.012 → 275
081.04.060 → 349	092.19.009 → 317	094.07.001 → 269	094.41.250 → 280	095.02.002 → 285	098.02.001 → 274
081.04.160 → 349	092.22.101W → 313	094.07.002 → 269	094.41.500 → 280	095.02.003 → 286	098.02.002 → 274
081.10.001 → 352	092.22.102W → 313	094.07.003 → 269	094.41.901 → 280	095.02.004 → 286	098.03.001B → 275
081.13.060 → 350	092.22.244 → 314	094.07.004 → 269	094.41.902 → 280	095.03.001 → 288	098.03.001P → 275
081.13.090 → 350	092.22.253 → 314	094.07.005 → 269	094.41.905 → 280	095.03.002 → 288	098.03.001R → 275
081.14.001 → 340	092.22.254 → 314	094.07.006 → 269	094.41.910 → 280	095.03.003 → 288	098.03.002B → 275
081.14.002 → 340	092.22.524 → 314	094.07.007 → 269	094.42.005 → 280	095.03.004 → 288	098.03.002P → 275
081.15.001 → 353	092.23.101B → 313	094.07.008 → 269	094.42.010 → 280	095.03.011 → 289	098.03.002R → 275
081.15.101 → 353	092.23.101G → 313	094.08.001 → 269	094.42.025 → 280	095.03.012 → 289	099.01.001 → 119
081.20.001 → 350	092.23.101P → 313	094.08.002 → 269	094.42.050 → 280	095.04.001 → 284	099.01.002 → 119
082.01.001 → 352	092.23.101W → 313	094.08.003 → 269	094.42.100 → 280	095.04.002 → 284	099.01.003 → 119
082.01.002 → 352	092.23.101Y → 313	094.08.004 → 269	094.42.250 → 280	095.04.003 → 285	099.01.006 → 119
082.01.003 → 352	092.23.102B → 313	094.08.005 → 269	094.42.500 → 280	095.04.004 → 285	099.02.001 → 121
082.02.001 → 353	092.23.102W → 313	094.08.006 → 269	094.42.901 → 280	095.04.005 → 285	099.02.002 → 121
082.02.003 → 353	092.23.210 → 314	094.08.007 → 269	094.42.902 → 280	095.05.001 → 287	099.02.011 → 121
082.03.001 → 354	092.23.212 → 314	094.08.008 → 269	094.42.905 → 280	095.05.002 → 287	099.03.050 → 121
082.03.003 → 354	092.23.506 → 314	094.11.005 → 279	094.42.910 → 280	095.06.001 → 287	099.03.072 → 121
083.03.001 → 18	092.24.212B → 314	094.11.010 → 279	094.43.005 → 280	095.06.002 → 287	099.03.090 → 121
083.03.001 → 324	092.24.212L → 314	094.11.025 → 279	094.43.010 → 280	095.06.003 → 287	099.04.001 → 120

product index

catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page	catalogue no // page
099.04.002 → 121	104.01.002 → 141	121.06.096 → 330	603.11.001 → 351	613.31.001 → 339	621.11.050 → 174
099.04.003 → 120	104.01.003 → 271	122.01.006 → 327	604.01.001 → 295	613.32.001 → 249	621.11.103 → 174
099.04.004 → 120	104.01.004 → 271	122.01.012 → 327	604.01.101 → 295	615.01.001 → 252	621.11.250 → 174
099.04.005 → 120	104.01.005 → 271	122.01.024 → 327	604.01.102 → 295	615.01.012 → 174	621.12.001 → 175
099.04.006 → 120	104.01.006 → 271	122.01.048 → 327	604.01.103 → 295	615.01.012 → 175	621.12.103 → 175
099.04.007 → 120	104.01.007 → 271	122.01.096 → 327	604.01.104 → 295	615.01.012 → 252	621.12.905 → 175
099.05.009 → 120	104.01.008 → 271	122.01.196 → 327	604.01.105 → 295	615.01.101 → 253	621.12.908 → 175
099.05.013 → 120	104.01.009 → 271	123.01.002 → 318	604.01.106 → 295	615.01.102 → 253	621.21.001 → 189
099.05.019 → 122	104.01.010 → 271	123.01.028 → 318	605.01.001 → 150	615.01.103 → 253	622.01.001 → 254
099.05.025 → 122	104.01.011 → 271	123.01.096 → 320	605.01.002 → 150	615.01.104 → 253	622.02.001 → 255
099.05.109 → 122	104.01.012 → 271	123.02.018 → 319	605.01.101 → 151	615.02.001 → 253	622.03.001 → 254
099.05.113 → 122	105.01.110 → 271	123.02.028 → 319	605.01.102 → 151	615.11.056 → 262	622.11.001 → 152
099.06.024 → 122	105.01.125 → 271	123.02.096 → 320	605.01.103 → 151	615.11.100 → 262	622.12.001 → 152
099.06.033 → 122	105.02.110 → 159	123.02.118 → 319	605.01.104 → 151	616.01.001 → 228	623.01.004 → 148
099.06.038 → 123	105.02.125 → 159	123.02.128 → 319	605.01.105 → 151	616.01.101 → 230	623.01.008 → 148
099.06.124 → 123	105.03.110 → 159	123.03.028 → 318	605.01.106 → 151	616.01.103 → 230	623.02.004 → 149
099.06.133 → 123	105.03.125 → 159	123.03.096 → 320	605.01.107 → 151	616.01.104 → 230	623.02.008 → 149
099.07.033 → 123	105.11.110 → 159	123.03.128 → 318	605.01.108 → 151	616.02.002 → 228	623.11.110 → 149
099.07.038 → 123	105.11.125 → 159	123.04.096 → 320	605.01.109 → 151	616.02.101 → 230	T-B-010 → 40
099.11.001 → 123	105.12.110 → 159	123.05.096 → 320	605.01.110 → 151	616.02.102 → 230	T-B-011 → 40
099.11.002 → 123	105.12.125 → 159	124.01.001 → 321	605.01.111 → 151	616.11.001 → 229	T-B-1000 → 40
099.11.003 → 197	105.13.110 → 159	124.01.002 → 321	605.01.112 → 151	616.11.101 → 230	T-B-10000 → 40
099.11.004 → 197	105.13.125 → 159	124.01.011 → 321	605.01.113 → 151	616.11.102 → 230	T-B-1250 → 40
099.12.001 → 197	106.01.110 → 159	124.01.021 → 321	605.01.114 → 151	616.11.103 → 230	T-B-200 → 40
099.12.002 → 197	106.01.125 → 159	126.01.011 → 328	605.01.115 → 151	616.11.104 → 230	T-B-5000 → 40
099.12.003 → 197	106.02.110 → 159	126.01.014 → 328	606.01.005 → 260	616.11.105 → 230	TF-010 → 40
099.12.004 → 197	106.02.125 → 159	126.01.021 → 328	606.01.007 → 260	616.11.107 → 230	TF-011 → 40
099.13.001 → 197	106.03.110 → 159	126.01.024 → 328	606.01.010 → 260	616.11.108 → 230	TF-100 → 40
099.13.002 → 197	106.03.125 → 159	126.01.041 → 328	608.01.002 → 176	616.12.001 → 229	TF-1000 → 40
099.13.003 → 197	106.11.110 → 159	126.01.044 → 328	608.01.101 → 177	616.21.001 → 153	TF-1250 → 40
099.13.004 → 197	106.11.125 → 159	126.01.081 → 328	608.01.102 → 177	616.21.002 → 153	TF-200 → 40
099.14.001 → 197	106.12.110 → 159	126.01.084 → 328	608.11.100 → 264	618.01.001 → 256	TF-50 → 40
099.14.003 → 197	106.12.125 → 159	126.02.006 → 328	608.11.250 → 264	618.01.101 → 256	TF-R-S-010 → 40
099.15.001 → 197	106.13.110 → 159	126.02.012 → 328	608.11.500 → 264	618.01.102 → 256	TF-R-S-011 → 40
099.15.002 → 197	106.13.125 → 159	126.02.024 → 328	608.11.901 → 264	618.01.103 → 256	TF-R-S-100 → 40
099.15.003 → 197	107.40.140 → 159	126.02.048 → 328	608.11.902 → 264	618.11.001 → 257	TF-R-S-1000 → 40
099.15.004 → 197	107.58.158 → 159	126.03.035 → 329	608.11.904 → 264	618.12.001 → 257	TF-R-S-1250 → 40
099.16.002 → 197	108.01.001 → 276	126.03.135 → 329	608.11.906 → 264	618.21.001 → 335	TF-R-S-200 → 40
099.16.004 → 197	108.01.002 → 276	126.03.635 → 329	608.11.910 → 264	618.22.001 → 335	TF-R-S-50 → 40
099.17.001 → 197	108.01.003 → 276	502.04.250 → 231	608.12.100 → 265	618.23.001 → 335	T-R-010 → 40
099.17.003 → 197	108.01.004 → 276	502.04.500 → 231	608.12.250 → 265	618.24.001 → 335	T-R-011 → 40
099.18.001 → 197	108.01.005 → 276	502.04.901 → 231	608.12.500 → 265	618.25.001 → 335	T-R-1000 → 40
099.18.002 → 197	108.01.006 → 276	502.07.250 → 231	608.12.901 → 265	618.32.001 → 335	T-R-1250 → 40
099.18.003 → 197	108.01.007 → 276	502.07.500 → 231	608.12.902 → 265	618.41.001 → 335	T-R-200 → 40
099.18.004 → 197	108.01.008 → 276	502.07.901 → 231	608.12.904 → 265	619.01.001 → 258	T-R-S-010 → 40
099.19.001 → 197	108.01.009 → 276	502.10.250 → 231	608.13.100 → 266	619.01.050 → 258	T-R-S-011 → 40
099.19.003 → 197	108.01.010 → 276	502.10.500 → 231	608.13.250 → 266	619.01.100 → 258	T-R-S-1000 → 40
099.50.001 → 197	108.01.011 → 276	502.10.901 → 231	608.13.500 → 266	619.01.101 → 259	T-R-S-10000 → 40
099.60.001 → 197	108.01.012 → 276	601.01.023 → 194	608.13.901 → 266	619.01.103 → 259	T-R-S-1250 → 40
101.01.001 → 122	108.01.013 → 276	601.02.024 → 195	608.13.902 → 266	619.01.104 → 258	T-R-S-200 → 40
101.01.002 → 122	108.01.014 → 276	602.01.001 → 261	608.14.101 → 266	619.01.250 → 258	T-R-S-5000 → 40
101.02.001 → 232	108.01.015 → 276	602.01.101 → 261	608.14.250 → 266	619.01.500 → 258	
101.02.002 → 232	108.01.016 → 277	602.02.001 → 261	608.14.500 → 266	619.02.001 → 259	
101.02.003 → 232	108.02.001 → 277	602.21.001 → 178	608.14.901 → 266	619.11.001 → 272	
101.02.004 → 233	108.02.002 → 277	602.31.001 → 236	608.16.102 → 266	619.11.002 → 272	
101.02.005 → 232	120.01.025 → 326	602.31.002 → 237	608.16.250 → 266	619.11.003 → 273	
101.02.006 → 232	120.01.075 → 326	602.31.003 → 238	608.16.500 → 266	620.01.001 → 257	
101.02.007 → 232	120.01.175 → 326	602.31.004 → 238	608.16.901 → 266	621.01.101 → 191	
101.02.008 → 232	120.02.025 → 326	602.31.005 → 238	609.01.056 → 263	621.01.102 → 191	
101.03.001 → 232	120.02.075 → 326	602.31.006 → 238	609.01.100 → 263	621.05.001 → 190	
101.03.003 → 232	120.02.175 → 326	602.31.007 → 239	610.01.005 → 26	621.05.003 → 190	
101.03.004 → 195	120.03.035 → 329	602.31.101 → 236	610.01.006 → 27	621.05.006 → 190	
101.03.005 → 234	120.03.035 → 349	602.32.001 → 239	611.01.001 → 178	621.05.010 → 190	
101.03.006 → 234	120.03.060 → 329	603.01.001 → 166	613.01.001 → 246	621.05.015 → 190	
101.03.007 → 235	120.03.060 → 349	603.02.001 → 167	613.02.001 → 245	621.05.022 → 190	
101.03.008 → 235	120.03.090 → 329	603.03.001 → 169	613.02.002 → 245	621.05.028 → 190	
101.04.001 → 235	120.03.090 → 349	603.03.101 → 168	613.02.050 → 245	621.05.101 → 191	
101.04.002 → 235	120.04.060 → 329	603.03.102 → 168	613.02.100 → 245	621.05.103 → 191	
101.04.003 → 233	120.04.160 → 329	603.04.001 → 169	613.02.250 → 245	621.05.106 → 191	
101.04.004 → 233	120.05.160 → 329	603.05.001 → 170	613.02.500 → 245	621.05.110 → 191	
101.04.005 → 233	120.06.070 → 331	603.06.001 → 171	613.03.001 → 247	621.05.115 → 191	
101.04.006 → 233	120.06.074 → 331	603.06.101 → 171	613.04.001 → 248	621.05.122 → 191	
101.04.007 → 233	120.10.100 → 331	603.06.102 → 171	613.05.001 → 248	621.06.003 → 192	
101.04.008 → 233	120.12.100 → 331	603.07.001 → 172	613.06.001 → 244	621.06.006 → 192	
102.28.080 → 233	120.14.500 → 331	603.07.101 → 173	613.07.001 → 247	621.06.010 → 192	
102.30.080 → 233	120.14.501 → 331	603.07.102 → 173	613.08.001 → 249	621.06.015 → 192	
102.33.080 → 141	121.01.001 → 325	603.07.103 → 173	613.11.001 → 255	621.06.022 → 192	
102.33.094 → 141	121.01.013 → 325	603.07.104 → 173	613.21.001 → 336	621.06.028 → 192	
102.34.120 → 141	121.02.020 → 325	603.07.105 → 173	613.22.001 → 338	621.08.001 → 191	
104.01.001 → 141	121.05.096 → 330	603.07.106 → 173	613.23.001 → 337	621.11.001 → 174	

ISOLAB
Laborgeräte GmbH

DIN EN ISO CERTIFIED 9001






volumetric measurement & liquid handling














volumetric measurement & liquid handling

blank production



State of the art automatic welding and attaching machines are used for connecting the glass parts to each other.

ISOLAB is one of the few manufacturers that produces its own blank products.

Glass tubes are blown by highly skilled blowers to ensure the uniform wall thickness, exact shape and dimensions according to DIN standards.

After rigorous controls, all blanks are sent to tunnel furnaces where the stress on the blanks is eliminated under controlled heating and cooling process.

This process ensures the optimum mechanical stability and inhibits the effect of temperature fluctuations.



Glass tubes are blown by highly skilled blowers to ensure the uniform wall thickness, exact dimensions according to DIN standards.

joint production



All joints are manufactured by automatic forming machines for consistent quality and guaranteed uniformity.

ISOLAB manufactures all joints with automatic machines with guaranteed uniformity.

During the grinding process, only diamond tools are used to ensure perfect results.

The taper of the joints are tested with precise taper angle control machine to ensure the taper quality.

This process ensures ending up with accurately tapered, smoothly finished, absolutely leak-proof and interchangeable ground joints.

The tightness also tested with vacuum test machines.



Grinding steps are performed by diamond reamers assuring best results with highest precision.

calibrated tubing production



Glass tubings are slowly and gradually heated up to half-melting level. Then they are shrinked around steel rods with precise diameter.

Most of the burette manufacturers use ordinary tubings which are more tolerant in terms of wall thickness and inside diameter.

ISOLAB burette tubings are manufactured by using vacuum technology to maintain inside diameter of the burette tubings uniform all over their length.

First tubings are slowly and gradually heated up to half-melting level.

Then they are shrinked around steel rods with precise diameter under vacuum condition for uniform wall thickness and diameter.



Burette tubings are manufactured by using vacuum technology to maintain diameter of the burette tubings uniform all over their length.

volumetric measurement & liquid handling

printing process

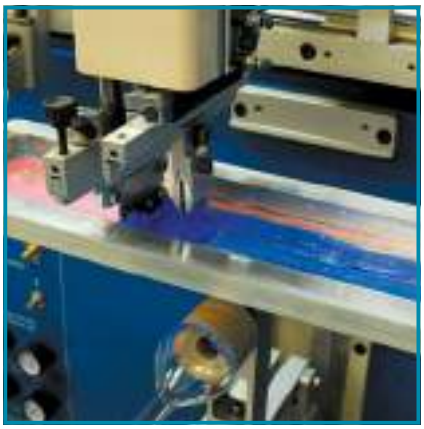
ISOLAB uses the most advanced printing machines for achieving the highest printing quality.

These machines guarantee high contrast and sharp printing providing precise reading.

All used screen stencils are stretchable.

The stretchable screen stencils easily stretched to match the calibration marks so that the volume precision is maintained at all volume levels.

Specially formulated blue, white or amber colored enamels are used during printing process.



Only high contrasted and fine printing allows precise reading of scaled products such as cylinders, burettes, pipettes etc.



According to DIN standards the information listed hereunder is required to printed on the bodies of products.

- Brand name
- Nominal capacity
- Class degree
- Calibration temperature
- Matching standards
- Possible error limits
- Batch numbers
- Production date
- Warnings, etc

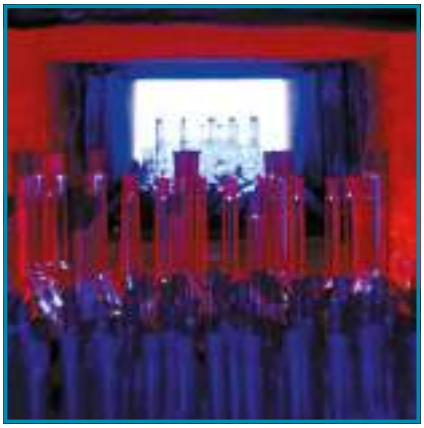
annealing process

Furnace process is the last step to reach a perfect product.

In order to achieve, stress-free products with highest level of printing quality precise controlled gradual heating and cooling is essential.

At ISOLAB, all heating and annealing steps are carried with state-of-art temperature controlled tunnel furnaces.

For these reasons all ISOLAB glassware are stress-free, mechanically strong and ever lasting printed.



In order to achieve the best results, the furnace has a precise temperature control all-over the thermal heating zone.



Furnace is entirely controlled by electronic panel for guaranteed temperature control at all steps.

packing process

ISOLAB is perfectly aware that the products used in laboratory should be very clean and excellently packed.

All glassware are washed in industrial scale ultrasonic cleaning machines for removing all the dirt and left over particles.

Our staff responsible for the final quality control of the packaging is extremely qualified and well experienced.

High quality packing materials are used to ensure break-free delivery of the products.



Modern industrial scale ultrasonic cleaning machines guarantee perfect removal of all remaining dirt and particles.



The final step of the packing is also the final step of quality control process.

volumetric measurement & liquid handling

calibration



Meniscus is determined automatically at the exact lowest level by a laser beam.

Manual calibration done by an operator carries high risk of mistakes and is not reliable.

All calibration steps are carried out with fully automatic robots.

These robotic machines guarantee the highest level of precision and accuracy.

Although during the calibration process the room temperature enviroment is kept stable at 20°C any slight change in the room temperature is automatically compensated by the machines.

Meniscus is automatically determined at the exact lowest level by a laser beam.

Application of the meniscus ring line is done by stretching the glass surface for longer persistance with the help of a diamond tool. Later the stretched ring line is stained with either blue or white enamel paint for easy observation of meniscus line.



Filling the blank products with water is done automatically by the calibration machines.

quality control



Steps such as filling the water, finding the meniscus line and controlling the volume are done automatically.

Manual quality control of volumetric products is also very complex and time consuming. Also, manual quality control done by an operator carries high risk of mistakes and is not reliable.

In order to avoid above mentioned risks and to achieve the best reliable results quality control steps are carried out with fully automatic robots which are only used by very few selected manufacturers.

Quality control robot is featured with a high resolution camera and image processing system for the most precise meniscus level control.

Steps such as filling the water, finding the meniscus line and controlling the volume are done automatically.

The balances and the electronic calibrated thermometers are in-line connected to the system for online data transfer.

The operator simply mounts the volumetric glass to the quality control robot and waits for the precision guaranteed outcome.



The operator simply mounts the volumetric glass to the quality control robot and waits for the precision guaranteed outcome.

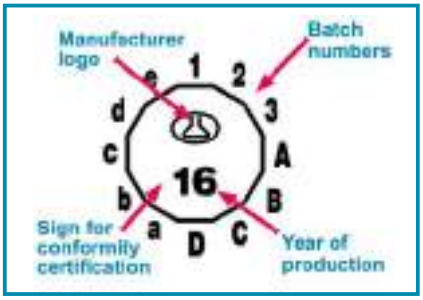
conformity

"Conformity" is the compliance of the product with the exact and legal standards defined by German Federal Weights and Measures (Eichordnung) Regulation.

The "conformity testing and certification" is described in detail on **DIN 12600** standard.

According to German law of metrology, only listed accredited manufacturers such as ISOLAB with a guaranteed quality assurance are allowed to certify the conformity by printing the conformity logo **(DE-M)** on self manufactured volumetric products.

The manufacturer's logo should also be printed along with the conformity logo. We are very proud of having this logo printed on our related products as a guarantee of conformity according to **DIN 12600** standard starting from day one.



batch certification

"Batch certificate" shows the determined mean value of the controlled standard deviation and tolerance of volumetric products batch to batch.

After the production of each batch, the mandatory minimum quantity is randomly tested and certified according to **DIN 12600** standard.

The **"batch certificate"** comprimises the date of production, mean value, standard deviation, permitted tolerance and other information.

By tracking the batch number user can reach the related batch certificate.

Batch numbers and related certificates can be downloaded from our ISOLAB web site. Users can print the **"batch certificate"** online with the following steps:

For downloading the certificate please enter www.isolab.de web site, and ➤ select "downloads/support" from the menu ➤ select the product code number from "obtain certificates" section ➤ select the batch number printed on the body ➤ certificate page comes automatically ➤ print the page by selecting "printer version" on the left corner.



quality certification

An **"individual quality certificate"** can also be issued for volumetric products.

"Quality certificate" shows the final and ultime tested factors of the volumetric products.

Such a certificate is always well accepted worldwide since it should be prepared by a worldwide accreditated test laboratory.

The selected product is individually tested in the most precise way and controlled as defined by German Federal Weights and Measures (Eichordnung) Regulation and according to **DIN 12600** standard.

Individually prepared and printed quality certificate compromising the date of production, mean value, standard deviation, permitted tolerance and other informations.



volumetric measurement & liquid handling

classification

All volumetric products are always calibrated as **to contain (In)** or **to deliver (Ex)**.

They are classified in three groups; **Class "B"** or **Class "A"** or **"AS"**.

Class "A" and **"AS"** carry exactly the same error and tolerance limits.

The difference is in their "delivery" and "waiting times". "S" means quick (swift) delivery.

The classification as **"A"** or **"B"** indicates the degree of accuracy of related parameters.

Class **"A"** or **"AS"** volumetric products carry highest level of accuracy and specially well accepted by laboratories looking for quality.

The error limits, accuracy and variations are always in accordance with relevant **ISO** or **DIN** standard limits.

delivery time

Delivery time is the time needed to deliver the liquid from the starting level to the final level.

For burettes and pipettes final level is generally the tip of the product.

waiting time

The waiting time starts after complete transfer is finalised.

After the transfer of the liquid usually liquid continues to flow down from the burette or pipette wall.

For accurate volume measurement attention must be paid to the waiting time.

Specially with pipettes the residual drop accumulated at the tip should be considered.

meniscus line

A simple definition of meniscus is the curve on the surface of the liquid.

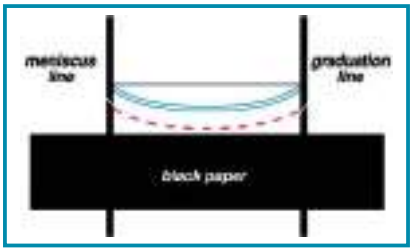
According to **DIN**, **ISO** and most other standards volume should be read at the lowest liquid level.

The lowest level of the meniscus has to touch the upper edge of the graduation mark.

On the volumetric glassware the form of the meniscus is concave.

For the exact and most precise results, the eye of the observer must be exactly at the same level of meniscus line.

To have a better, faster and more accurate reading and measurement, a black strip should be held at the back side, just below of the graduation mark and meniscus line.



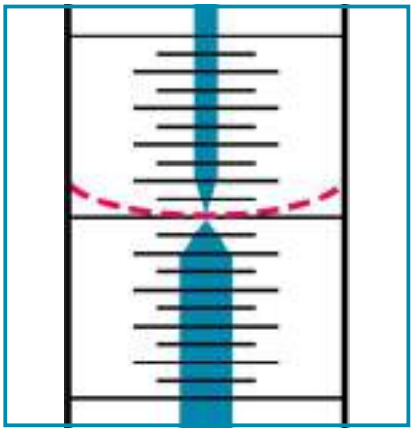
schellbach stripe

The schellbach stripe is a narrow blue band which takes place at the center of a wider white band on the burette tube background.

Mostly printed at the backside of the burette tube for easier observation of meniscus line.

The penetrated light fraction two arrow head points that appear at the meniscus line.

Exact meniscus line is exactly where two arrow heads touch each other.





how to use volumetric flasks

- Volumetric flasks are mainly used for preparation of highly accurate solutions.
- First add the exact weight of the product inside the flask. Fill the flask about half the volume and mix the content.
- Then fill again until the level reaches a bit lower than calibration ring mark.
- Adjust the temperature of flask and the content to 20°C.
- Add a little more liquid so that the meniscus will be exactly at the same level of the ring mark.
- Pay attention to read the meniscus at the eye level also not to wet the inner neck wall above the ring mark.



how to use measuring cylinders

- Cylinders are mainly used for the exact measurement of liquid volumes.
- First fill the cylinder with liquid and wait until the residual liquid on the wall will to filter down.
- Then read the volume level from the cylinders volume graduation chart.
- Pay attention to read the volume level at the eye level. Do not wet the inner neck wall above the calibration mark.



how to use mixing cylinders

- Mixing cylinders are mainly used for the exact measurement of liquid volumes.
- First fill the cylinder with liquid and wait until the residual liquid on the wall to filter down.
- Then read the volume level from the cylinders volume graduation chart.
- Later add the precise weight of the substance and dissolve it by shaking the cylinder.



how to use burettes

- Fill the burette a bit higher than the “0” level.
- To activate the stopcock, drain the solution but never below the “0” mark.
- Pay attention there will be no air bubbles left in the burette.
- Fill more solution above 10 mm of the “0” mark. Do not wet the burette wall above the liquid level.
- By focusing the meniscus at eye level drain the solution to the exact “0” mark.
- Wipe off the drops at the stopcock tip and slowly start the titration. When color changes stop the titration and wait for the 30 seconds.
- Wipe off the remaining drop since this is also the part of the measured volume.



how to use pipettes

- Fill the liquid max 5 mm above the volume mark. Wipe off the outer surface of the pipette.
- Hold the pipette at eye level and place the tip to the wall of a beaker with a slight angle.
- Discharge the access volume until the meniscus reaches the calibration mark.
- When the level of the liquid reaches to the tip wait according to waiting time.
- When the waiting time is over, wipe the tip gently pulling upwards on the beaker wall and transfer the liquid.
- If there is still any residual liquid left in the tip, never blow out.



how to use density bottles

- Carefully weigh the empty and well dried density bottle.
- Fill the bottle up to 2/3 of the neck level while avoiding air bubbles.
- Adjust the bottle temperature to 20°C in a thermostatic bath. Insert the stopper of the bottle carefully. The capillary of the stopper will discharge the liquid.
- Dry the body of the bottle and the stopper carefully by wiping with a tissue paper. Pay attention not to remove any liquid from the capillary tube.
- The liquid inside of the bottle should exactly be at the same level with the upper end of the capillary tube.
- Final step is weighing the filled density bottle and calculating the density.



VOLUMETRIC FLASKS - "glass" - "class A" - "conformity certified" - "clear"



- Manufactured from heat resistant borosilicate 3.3 glass according to DIN EN ISO 1042 standard.
- Calibrated according to DIN/ISO Class "A" standard.
- Featured with a ("DE-M") conformity mark according to German federal weights and measures regulations.
- Individual calibration carried out by automatic robots eliminate possible deviations from nominal values.
- Conformity mark and batch number printed on the body surface. Batch certificate can be downloaded from website.
- Diamond grinded meniscus ring mark offers longer persistence.
- Blue colored meniscus ring mark enables easy observation of meniscus level.
- Inscriptions on the bodies are printed with blue enamel color.
- Flasks are supplied with a leak-proof P.E stopper which ensures perfect closure.



Clear flasks are featured with a meniscus ring mark with blue color after being formed by grinding with a diamond tool.

Diamond grinded meniscus ring mark offers longer persistance and blue color on the ring mark enables more visible meniscus ring mark.



As an alternative to supplied P.E stopper a glass stopper can be selected from ***catalogue page 114.***

catalogue number	volume	tolerance	approximate height	neck inner diameter	neck size	pack quantity
013.01.005	5 ml	± 0.025 ml	70 mm	10.00 mm	NS 10/19	2 pieces
013.01.010	10 ml	± 0.025 ml	90 mm	10.00 mm	NS 10/19	2 pieces
013.01.020	20 ml	± 0.040 ml	110 mm	10.00 mm	NS 10/19	2 pieces
013.01.025	25 ml	± 0.040 ml	110 mm	10.00 mm	NS 10/19	2 pieces
013.01.026	25 ml	± 0.060 ml	110 mm	12.50 mm	NS 12/21	2 pieces
013.01.050	50 ml	± 0.060 ml	140 mm	12.50 mm	NS 12/21	2 pieces
013.01.051	50 ml	± 0.060 ml	140 mm	14.50 mm	NS 14/23	2 pieces
013.01.100	100 ml	± 0.100 ml	170 mm	12.50 mm	NS 12/21	2 pieces
013.01.101	100 ml	± 0.100 ml	170 mm	14.50 mm	NS 14/23	2 pieces
013.01.150	150 ml	± 0.150 ml	200 mm	14.50 mm	NS 14/23	2 pieces
013.01.200	200 ml	± 0.150 ml	210 mm	14.50 mm	NS 14/23	2 pieces
013.01.250	250 ml	± 0.150 ml	220 mm	14.50 mm	NS 14/23	2 pieces
013.01.300	300 ml	± 0.200 ml	230 mm	14.50 mm	NS 14/23	2 pieces
013.01.400	400 ml	± 0.200 ml	245 mm	18.80 mm	NS 19/26	2 pieces
013.01.500	500 ml	± 0.250 ml	260 mm	18.80 mm	NS 19/26	2 pieces
013.01.901	1000 ml	± 0.400 ml	300 mm	24.00 mm	NS 24/29	2 pieces
013.01.902	2000 ml	± 0.600 ml	370 mm	29.20 mm	NS 29/32	2 pieces
013.01.905	5000 ml	± 1.200 ml	475 mm	34.50 mm	NS 34/35	1 piece
013.01.910	10000 ml	± 2.000 ml	575 mm	45.00 mm	NS 45/40	1 piece

150 ml, 300 ml, 400 ml and 10000 ml volumetric flasks are in addition to DIN range.

VOLUMETRIC FLASKS - *"glass" - "class A" - "conformity certified" - "amber"*



- Manufactured from heat resistant borosilicate 3.3 glass according to DIN EN ISO 1042 standard.
- They guarantee excellent protection against UV source and still good visibility of liquid level.
- Calibrated according to DIN/ISO Class "A" standard.
- Featured with a ("DE-M") conformity mark according to German federal weights and measures regulations.
- Individual calibration carried out by automatic robots eliminate possible deviations from nominal values.
- Conformity mark and batch number printed on the body surface. Batch certificate can be downloaded from website.
- Diamond grinded meniscus ring mark offers longer persistence.
- White colored meniscus ring mark enables easy observation of meniscus level.
- Inscriptions on the flask bodies are printed with white enamel color.
- Supplied with a leak-proof P.E stopper which ensures perfect closure.

catalogue number	volume	neck NS size	pack quantity
014.01.005	5 ml	10/19	2 pieces
014.01.010	10 ml	10/19	2 pieces
014.01.020	20 ml	10/19	2 pieces
014.01.025	25 ml	10/19	2 pieces
014.01.026	25 ml	12/21	2 pieces
014.01.050	50 ml	12/21	2 pieces
014.01.051	50 ml	14/23	2 pieces
014.01.100	100 ml	12/21	2 pieces
014.01.101	100 ml	14/23	2 pieces
014.01.200	200 ml	14/23	2 pieces
014.01.250	250 ml	14/23	2 pieces
014.01.500	500 ml	19/26	2 pieces
014.01.901	1000 ml	24/29	2 pieces
014.01.902	2000 ml	29/32	2 pieces



As an alternative to supplied P.E stopper a glass stopper can be selected from ***catalogue page 114.***

VOLUMETRIC FLASKS - *"glass" - "class A" - "amber"*



- Manufactured from heat resistant neutral 5.4 glass.
- Calibrated according to Class "A" standard.
- They guarantee excellent protection against UV source and still good visibility of liquid level.
- Individual calibration carried out by automatic robots eliminate possible deviations from nominal values.
- Conformity mark and batch number printed on the body surface.
- Diamond grinded meniscus ring mark offers longer persistence.
- White colored meniscus ring mark enables easy observation of meniscus level.
- Inscriptions on the flask bodies are printed with white enamel color.
- All flasks are supplied with a leak-proof P.E stopper which ensures perfect closure.

catalogue number	volume	neck NS size	pack quantity
014.11.005	5 ml	10/19	2 pieces
014.11.010	10 ml	10/19	2 pieces
014.11.020	20 ml	10/19	2 pieces
014.11.025	25 ml	10/19	2 pieces
014.11.026	25 ml	12/21	2 pieces
014.11.050	50 ml	12/21	2 pieces
014.11.051	50 ml	14/23	2 pieces
014.11.100	100 ml	12/21	2 pieces
014.11.101	100 ml	14/23	2 pieces
014.11.200	200 ml	14/23	2 pieces
014.11.250	250 ml	14/23	2 pieces
014.11.500	500 ml	19/26	2 pieces
014.11.901	1000 ml	24/29	2 pieces
014.11.902	2000 ml	29/32	2 pieces



As an alternative to supplied P.E stopper a glass stopper can be selected from ***catalogue page 114.***

COATED VOLUMETRIC FLASKS - *"glass" - "class A" - "conformity certified"*



- When handling dangerous and/or valuable solutions coated volumetric flasks are highly recommended.
- They are featured with identical technical specifications of clear and amber volumetric flasks with codes 013.01.xxx and 014.01.xxx.
- Bodies of these flasks are coated with a special formulated coating which reduces the impacts and also minimize the possible risks in case of breakage.
- Coating covers the body like a protective glove and holds the broken parts unscattered.
- The coating also holds the broken glass together so that the leakage will be minimum. In most of the cases this coating keeps the solutions still inside the flask body without leakage.
- The coating is highly transparent and can resist up to 135°C with maximum period of 30 minutes.
- They can be cleaned at maximum 95°C and can be autoclaved at 121°C. Should not be exposed directly to open flame.

coated clear flasks	coated amber flasks	volume	neck NS size	pack quantity
013.01.005C	014.01.005C	5 ml	10/19	2 pieces
013.01.010C	014.01.010C	10 ml	10/19	2 pieces
013.01.020C	014.01.020C	20 ml	10/19	2 pieces
013.01.025C	014.01.025C	25 ml	10/19	2 pieces
013.01.026C	014.01.026C	25 ml	12/21	2 pieces
013.01.050C	014.01.050C	50 ml	12/21	2 pieces
013.01.051C	014.01.051C	50 ml	14/23	2 pieces
013.01.100C	014.01.100C	100 ml	12/21	2 pieces
013.01.101C	014.01.101C	100 ml	14/23	2 pieces
013.01.150C		150 ml	14/23	2 pieces
013.01.200C	014.01.200C	200 ml	14/23	2 pieces
013.01.250C	014.01.250C	250 ml	14/23	2 pieces
013.01.300C		300 ml	14/23	2 pieces
013.01.400C		400 ml	19/26	2 pieces
013.01.500C	014.01.500C	500 ml	19/26	2 pieces
013.01.901C	014.01.901C	1000 ml	24/29	2 pieces
013.01.902C	014.01.902C	2000 ml	29/32	2 pieces













VOLUMETRIC FLASKS - *"glass" - "class A" - "conformity certified" - "trapezoidal"*





- Manufactured from heat resistant, durable borosilicate glass according to DIN EN ISO 1042 standard.
- Trapezoidal body form offers much higher stability and avoids fall over risk.
- Calibrated according to DIN/ISO Class "A" standard. Featured with a ("DE-M") conformity mark according to German federal weights and measures regulations.
- Individual calibration carried out by automatic robots eliminate possible deviations from nominal values.
- Conformity mark and batch number printed on the body surface. Batch certificate can be downloaded from website.
- Diamond grinded meniscus ring mark offers longer persistance and enables easy observation of meniscus level.
- **Alternative 2 products:** **Clear volumetric flasks** / **Amber volumetric flasks**
- Inscriptions on the clear flask bodies are printed with blue enamel. Inscriptions on the amber flask bodies are printed with white enamel.
- All volumetric flasks are supplied with a leak-proof P.E stopper which ensures perfect closure.

Small size flasks with standard body shape can fall over very easily due to their smaller center of gravity.

Compared to standard volumetric flasks of the same volume, trapezoidal flasks have at least twice base area.

For this reason trapezoidal flasks are much more stable than standard flasks.



clear flasks	amber flasks	volume	neck NS size	pack quantity
013.13.001	013.15.001	1 ml	07/16	2 pieces
013.13.002	013.15.002	2 ml	07/16	2 pieces
013.13.003	013.15.003	3 ml	07/16	2 pieces
013.13.004	013.15.004	4 ml	07/16	2 pieces
013.13.005	013.15.005	5 ml	07/16	2 pieces
013.13.010	013.15.010	10 ml	10/19	2 pieces
013.13.020	013.15.020	20 ml	10/19	2 pieces
013.13.025	013.15.025	25 ml	10/19	2 pieces
013.13.050	013.15.050	50 ml	12/21	2 pieces



For consistent accuracy should not be used with liquids over 60°C or kept under direct sunlight for long periods.

VOLUMETRIC FLASKS - *"P.P" - "class B"*

- Manufactured according to DIN EN ISO 1042 standard from polypropylene. Featured with high transparency and high chemical & head resistance.
- Calibrated according to DIN/ISO Class "B" standard.
- **Alternative 2 products:** **Clear volumetric flasks** / **Amber volumetric flasks**
- Clear flasks are manufactured from very clear polypropylene resulting high transparency and clear indication of meniscus line.
- Amber flasks are manufactured from special formulated polypropylene preventing UV light penetration into the flask yet still offering high transparency.
- All volumetric flasks are supplied with a leak-proof P.E stopper which ensures perfect closure.

clear flasks	amber flasks	volume	neck NS size	pack quantity
014.03.025	014.13.025	25 ml	10/19	1 piece
014.03.050	014.13.050	50 ml	12/21	1 piece
014.03.100	014.13.100	100 ml	14/23	1 piece
014.03.250	014.13.250	250 ml	14/23	1 piece
014.03.500	014.13.500	500 ml	19/26	1 piece
014.03.901	014.13.901	1000 ml	24/29	1 piece

MEASURING CYLINDERS - *"glass" - "class A" - "conformity certified"- "tall form"*



- Manufactured from heat resistant, durable borosilicate glass according to DIN EN ISO 4788 standard.
- Calibrated according to DIN/ISO Class "A" standard.
- Featured with a ("DE-M") conformity mark according to German federal weights and measures regulations.
- Individual calibration carried out by automatic robots eliminate possible deviations from nominal values.
- Conformity mark and batch number printed on the body surface. Batch certificate can be downloaded from website.
- Inscriptions on the cylinder body are printed with blue enamel.
- Flawless spout design assures pouring without any drips.
- Hexagonal base with strengthened knobs ensures increased stability.

catalogue number	volume	pack quantity
015.01.005	5 ml	2 pieces
015.01.010	10 ml	2 pieces
015.01.025	25 ml	2 pieces
015.01.050	50 ml	2 pieces
015.01.100	100 ml	2 pieces
015.01.250	250 ml	2 pieces
015.01.500	500 ml	2 pieces
015.01.901	1000 ml	2 pieces
015.01.902	2000 ml	1 piece



Hexagonal base with strengthened knobs ensures increased stability.



Flawless spout design assures pouring without any drips.



MIXING CYLINDERS - *"glass" - "class A" - "conformity certified"*

- Manufactured from heat resistant, durable borosilicate glass according to DIN EN ISO 4788 standard.
- Calibrated according to DIN/ISO Class "A" standard.
- Featured with a ("DE-M") conformity mark according to German federal weights and measures regulations.
- Individual calibration carried out by automatic robots eliminate possible deviations from nominal values.
- Conformity mark and batch number printed on the body surface. Batch certificate can be downloaded from website.
- Inscriptions on the cylinder body are printed with blue enamel.
- Hexagonal base with strengthened knobs ensures increased stability.
- Supplied with a leak-proof P.E stopper which ensures perfect closure.

catalogue number	volume	pack quantity
016.01.010	10 ml	2 pieces
016.01.025	25 ml	2 pieces
016.01.050	50 ml	2 pieces
016.01.100	100 ml	2 pieces
016.01.250	250 ml	2 pieces
016.01.500	500 ml	2 pieces
016.01.901	1000 ml	1 piece



Alternative to supplied P.E stopper a glass stopper can be selected from ***catalogue page 114.***



Hexagonal base with strengthened knobs ensures increased stability.



CYLINDERS
"glass" - "class B"
"P.P base"

- Manufactured from heat resistant, durable borosilicate glass according to DIN/ISO Class "B" standard.
- These cylinders are supplied with an interchangeable polypropylene base.
- Thick and durable polypropylene base reduces the risk of breakage during use and cleaning.
- Base perfectly fits the cylinder body and can easily be dismantled.
- Flawless spout design assures pouring without any drips.
- Inscriptions on the cylinder body are printed with white enamel.

catalogue number	volume	pack quantity
016.07.010	10 ml	2 pieces
016.07.025	25 ml	2 pieces
016.07.050	50 ml	2 pieces
016.07.100	100 ml	2 pieces
016.07.250	250 ml	2 pieces
016.07.500	500 ml	2 pieces
016.07.901	1000 ml	2 pieces



CYLINDERS
"glass" - "class B"
"glass base"

- Manufactured from heat resistant, durable borosilicate glass according to DIN/ISO Class "B" standard.
- Featured with a thick and durable hexagonal glass base.
- Hexagonal formed base ensures increased stability and reduces the risk of fallover.
- Flawless spout design assures pouring without any drips.
- Inscriptions on the cylinder body are printed with amber enamel.

catalogue number	volume	pack quantity
015.07.010	10 ml	2 pieces
015.07.025	25 ml	2 pieces
015.07.050	50 ml	2 pieces
015.07.100	100 ml	2 pieces
015.07.250	250 ml	2 pieces
015.07.500	500 ml	2 pieces
015.07.901	1000 ml	2 pieces



CYLINDERS
"P.P" - "class B"
"embossed scale"

- Manufactured according to DIN/ISO Class "B" standard from polypropylene.
- Featured with excellent transparency, high chemical and remarkable heat resistance.
- Calibrated according to DIN/ISO Class "B" standard.
- Flawless spout design assures pouring without drips.
- Thick hexagonal base with strengthened knobs ensures increased stability.
- For consistent accuracy, should not be used with liquids over 60°C or kept under direct sunlight for long periods.
- Inscriptions and nominal values are in embossed scale.

catalogue number	volume	pack quantity
016.05.010	10 ml	1 piece
016.05.025	25 ml	1 piece
016.05.050	50 ml	1 piece
016.05.100	100 ml	1 piece
016.05.250	250 ml	1 piece
016.05.500	500 ml	1 piece
016.05.901	1000 ml	1 piece



CYLINDERS
"P.P" - "class B"
"blue print scale"

- Manufactured according to DIN/ISO Class "B" standard from polypropylene.
- Featured with excellent transparency, high chemical and remarkable heat resistance.
- Calibrated according to DIN/ISO Class "B" standard.
- Flawless spout design assures pouring without drips.
- Thick hexagonal base with strengthened knobs ensures increased stability.
- For consistent accuracy, should not be used with liquids over 60°C or kept under direct sunlight for long periods.
- Inscriptions and nominal values are in printed blue scale.

catalogue number	volume	pack quantity
016.06.010	10 ml	1 piece
016.06.025	25 ml	1 piece
016.06.050	50 ml	1 piece
016.06.100	100 ml	1 piece
016.06.250	250 ml	1 piece
016.06.500	500 ml	1 piece
016.06.901	1000 ml	1 piece

BURETTES - *"straight" - "class AS" - "conformity certified"*



- Manufactured from pre-vacuum calibrated borosilicate 3.3 tubing according to ISO 385 standards.
- Calibrated according to DIN/ISO Class "AS" standard.
- Featured with a ("DE-M") conformity mark according to German federal weights and measures regulations.
- Individual calibration carried out by automatic robots eliminate possible deviations from nominal values.
- Conformity mark and batch number printed on the body surface. Batch certificate can be downloaded from website.
- Supplied with an interchangeable PTFE stopcock which does not require greasing at all. Stopcock guarantees the best drop control. Identical keys need no "matching the pairs" during cleaning.
- **Alternative 2 products:**
  - **Clear burettes**
  - **Amber burettes**
- Inscriptions and nominal values on clear burettes are printed with blue enamel.
- Inscriptions and nominal values on amber burettes are printed with white enamel.
- **2 type clear burettes:**
  - **Without schellbach stripe**
  - **With schellbach stripe**
- Schellbach stripe featured with a narrow blue band which is at the center of the larger white band offers easier and accurate observation of the meniscus line.

clear burettes W/O schellbach	clear burettes with schellbach	amber burettes W/O schellbach	volume	pack quantity
017.02.010	017.01.010	018.01.010	10 ml	1 piece
017.02.025	017.01.025	018.01.025	25 ml	1 piece
017.02.050	017.01.050	018.01.050	50 ml	1 piece



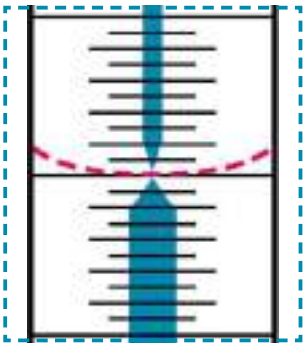
Supplied with an interchangeable PTFE stopcock which does not require greasing at all.

The unique form of stopcock guarantees the best drop control. Can be closed with a gentle turn and enables leak-proof closure.

Identical keys need no "matching the pairs" during cleaning.

features of schellbach stripe

For easier reading, the schellbach stripe is printed at the back wall side of the burette.
Featured with a narrow blue band which is at the center of the larger white band.



The light fraction creates two arrow head points which appear at the meniscus line level.
Meniscus reading point is exactly where these two arrow heads meet each other.





All clear burette inscriptions and nominal values are printed with blue enamel.



All amber burette inscriptions and nominal values are printed with white enamel.

BURETTES - *"straight" - "class A" & "class B"*

➤ Manufactured from borosilicate 3.3 tubing according to ISO 385 standards.

➤ **DIN/ISO class A**

➤ **Alternative 2 standards:**

➤ **DIN/ISO class B**

➤ Supplied with an interchangeable PTFE stopcock which does not require greasing at all. Stopcock guarantees the best drop control.



Inscriptions and nominal values are printed with amber enamel.

➤ **Clear burettes**

➤ **Alternative 2 burettes:**

➤ **Amber burettes**

➤ Inscriptions and nominal values on clear burettes are printed with amber enamel.

➤ Inscriptions and nominal values on amber burettes are printed with white enamel.



Inscriptions and nominal values are printed with white enamel.

clear burettes class B	*clear burettes class A*	*amber burettes class B*	*amber burettes class A*	*volume*	*pack quantity*
018.11.025	*018.12.025*	*018.13.025*	*018.14.025*	*25 ml*	*1 piece*
018.11.050	*018.12.050*	*018.13.050*	*018.14.050*	*50 ml*	*1 piece*



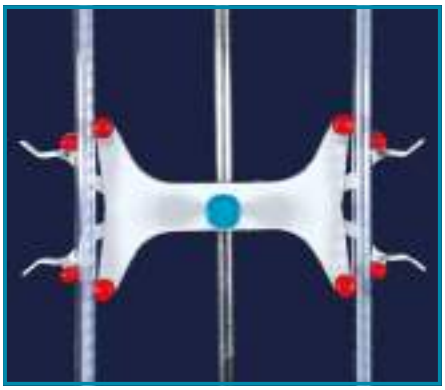


BURETTE CLAMPS *"steel"*

➤ Manufactured from steel to hold one or two straight burettes at a time.

➤ Unique design guarantees firm hold of the burettes and offers an uninterrupted easy observation of volume graduations.

Other technical specifications can be seen at catalogue page no 81.





BURETTE CLAMPS *"polypropylene"*

➤ Manufactured from polypropylene to hold one or two straight burettes at a time.

➤ Unique design guarantees firm hold of the burettes and offers an uninterrupted easy observation of volume graduations.

Other technical specifications can be seen at catalogue page no 81.



AUTOMATIC BURETTES - *"class AS" - "conformity certified"*



- Manufactured from pre-vacuum calibrated borosilicate 3.3 tubing according to ISO 385 standards.
- Calibrated according to DIN/ISO Class "AS" standard.
- Featured with a ("DE-M") conformity mark according to German federal weights and measures regulations.
- Individual calibration carried out by automatic robots eliminate possible deviations from nominal values.
- Conformity mark and batch number printed on the body surface. Batch certificate can be downloaded from website.
- Featured with an intermediate PTFE stopcock for fast and accurate measurement.
- Supplied with a PTFE "needle" valve stopcocks which does not require greasing at all.
- **Alternative 2 burettes:** **Clear burettes** / **Amber burettes**
- Clear automatic burettes are featured with a schellbach stripe for easier and accurate observation of the meniscus line.
- Inscriptions and nominal values on clear burettes are printed with blue enamel.
- Inscriptions and nominal values on amber burettes are printed with white enamel.
- Automatic burettes are supplied without bottles and bellow. Bottles and bellows should be ordered separately.

clear burettes	amber burettes	volume	pack quantity
019.01.010	019.05.010	10 ml	1 piece
019.01.025	019.05.025	25 ml	1 piece
019.01.050	019.05.050	50 ml	1 piece



Supplied with a PTFE "needle" valve stopcock which does not require greasing at all.

The unique "needle" key form guarantees the best drop control.

Can be closed with a gentle turn and enables leak-proof closure.

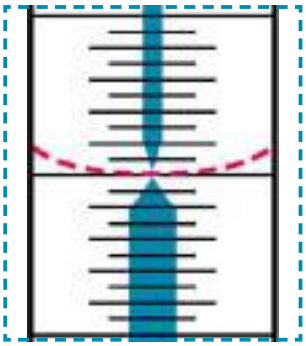


All automatic burettes are featured with an intermediate PTFE stopcock for reliable, fast and accurate measurement.

features of *schellbach stripe*

For easier reading, the schellbach stripe is printed at the back wall side of the burette.
Featured with a narrow blue band which is at the center of the larger white band.

The light fraction creates two arrow head points which appear at the meniscus line level.
Meniscus reading point is exactly where these two arrow heads meet each other.





BOTTLES - *"for automatic burettes"*





- Manufactured from thick glass to be used with automatic burettes. Grinded neck with NS 29/32 socket size perfectly fits to automatic burette's cone.

- **Alternative 2 burettes:**
  - **Clear burettes**
  - **Amber burettes**

clear burettes	amber burettes	bottle volume	pack quantity
020.07.010	020.07.025	2000 ml	1 piece

BELLOW - *"for automatic burettes"*

- Manufactured from best quality of natural rubber.
- Tube diameter perfectly fits to the air intake connector of the automatic burette.



catalogue number	bulb type	pack quantity
020.08.001	single	1 piece

SCHILLING BURETTES - *"class AS" - "conformity certified"*

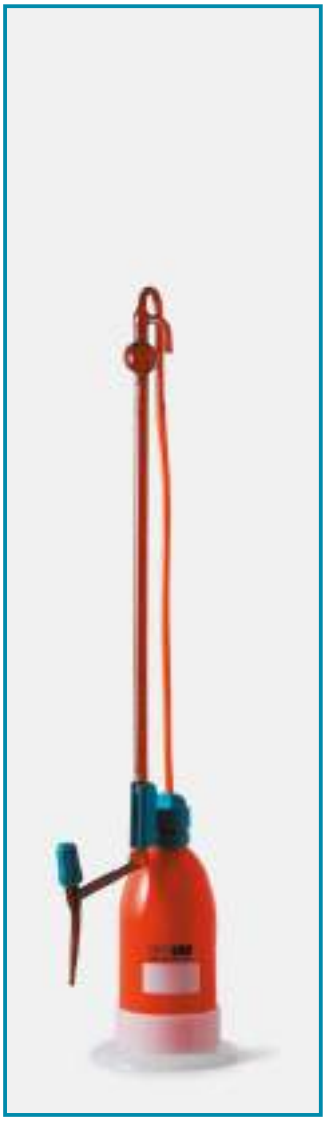
- Manufactured from pre-vacuum calibrated borosilicate 3.3 tubing according to ISO 385 standard.
- Calibrated according to DIN/ISO Class "AS" standard. Featured with a ("DE-M") conformity mark according to German federal weights and measures regulations.
- Individual calibration carried out by automatic robots eliminate possible deviations from nominal values.
- Conformity mark and batch number printed on the body surface. Batch certificate can be downloaded from website.
- Supplied with a PTFE "needle" valve stopcocks which does not require greasing at all.

- **Alternative 2 burettes:**
  - **Clear burettes**
  - **Amber burettes**

- Clear Schilling burettes are featured with a schellbach stripe for easier and accurate observation of the meniscus line.
- Inscriptions and nominal values on clear burettes are printed with blue enamel.
- Inscriptions and nominal values on amber burettes are printed with white enamel.

clear burettes	amber burettes	volume	pack quantity
020.03.010	020.05.010	10 ml	1 piece
020.03.025	020.05.025	25 ml	1 piece
020.03.050	020.05.050	50 ml	1 piece





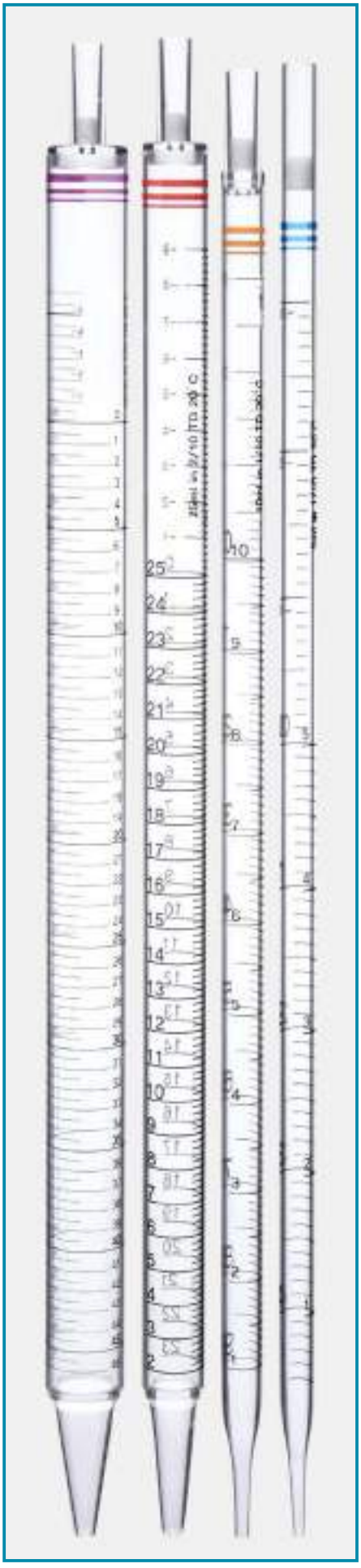
features of *Schilling burettes*

Schilling burettes are described as an alternative automatic burette specially suitable for field analysis where there is always a risk of breakage.

Schilling burette set consists of a burette tubing similar to glass automatic burette and a polyethylene reservoir bottle with a stabilising stand.

Offers a rapid filling by squeezing the polyethylene reservoir bottle and fast titration through valve stopcock.

PIPETTES - *"serological" - "polystyrene"*



- Manufactured from virgin polystyrene with excellent optical transparency.
- Sterilized with gamma irradiation. Free of RNase, DNase and pyrogen.
- Unique design offers a smooth interior which prevents cell-hanging and clumping inside the pipette wall.
- Stable and break-resistant pipette tip offers constant the reproducible flow in each time.
- Optimised mouthpiece perfectly fits to all types of pipette pumps and balls.
- Filter plug at the mouthpiece prevents overflow of liquid and also eliminates contamination.
- Color coded ring mark at suction stem allows fast identification and sourcing.
- The sharp, black, highly visible permanent graduations prevent ambiguity and guarantee precise reading and accurate dispensing.
- Ascending and descending scales facilitate reading both dispensing and remaining volume.
- Reverse graduations show actual removed or remaining volumes on all pipettes larger than 1 ml volume.
- Pipettes are supplied individually wrapped in fiber-free color coded paper as easy-to-open packing.



Color coded ring mark at suction stem allows fast identification and sourcing.



Filter plug at the mouthpiece prevents overflow of liquid and also eliminates contamination.



The sharp, black, highly visible permanent graduations prevent ambiguity and guarantee precise reading and accurate dispensing.

Ascending and descending scales faciliate reading both dispensing and remaining volume.

catalogue number	pipette volume	color code	pack quantity	box quantity
083.03.001	1 ml	yellow	200 pieces	800 pieces
083.03.002	2 ml	green	150 pieces	600 pieces
083.03.005	5 ml	blue	100 pieces	400 pieces
083.03.010	10 ml	orange	100 pieces	400 pieces
083.03.025	25 ml	red	50 pieces	200 pieces
083.03.050	50 ml	purple	40 pieces	160 pieces

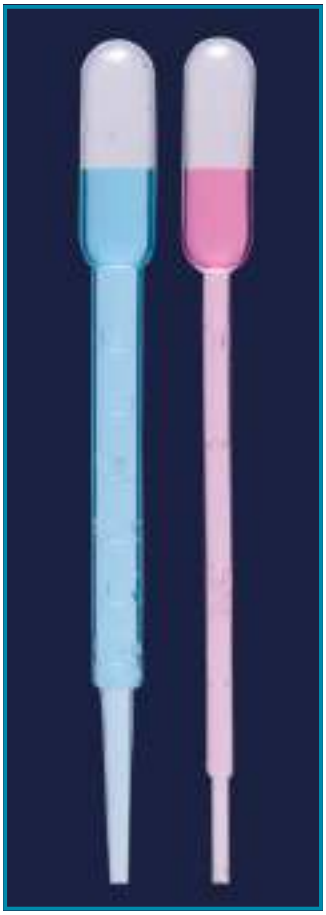
RACK - *"for pipettes"*

- Manufactured from acrylic for easy organisation of all kind of pipettes.
- 4 shelves guarantee easy and fast reach of all pipettes between 1 ml to 50 ml size within arm's reach.
- Angled design of the pipette shelves prevents the risk of pipettes falling out even the shelf is fully filled.

Other technical specifications can be seen at catalogue page no 23.



PIPETTES - *"pasteur" - "polyethylene"*



- Manufactured from low density polyethylene as an alternative to glass pasteur pipettes.
- No danger breakage with the risk of infectious material escape.
- Ideal for transferring and dispensing liquids safely in all types of laboratories eliminating the risk of cross contamination.
- The low affinity of the surface reduces the loss of cells and valuable proteins through binding.
- Long and flexible stem can be bent to draw liquids from narrow and small size vessels.
- Clearly visible volume level by external embossed graduation marks on the body.
- Uniform wall thickness guarantees uniform suction force at all times and offers reproducible drop sizes for each use.
- Pipette bulb requires very small pressure force for application and eliminates the risk of cross contamination.

Alternative 2 products:
- **non-sterile pipettes**
- **gamma sterile pipettes**

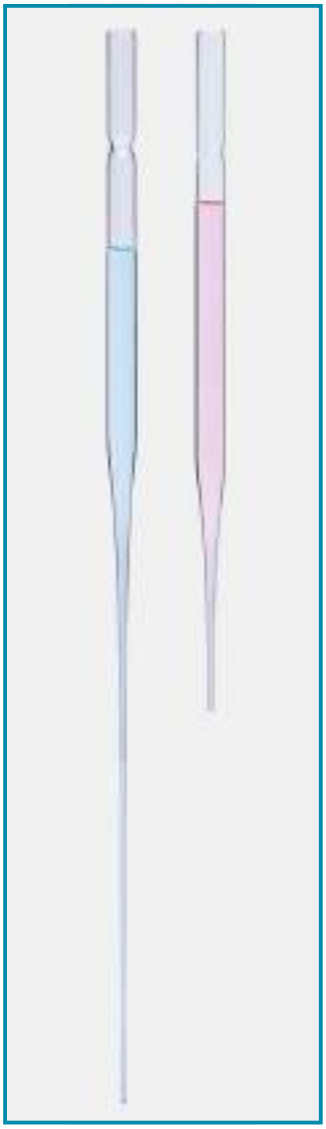
catalogue number	volume	product descriptions	packing specifications	pack quantity
084.02.001	3 ml	non-sterilized	in box	500 pieces
084.22.001	3 ml	sterilized	single pack	100 pieces
084.02.003	1 ml	non-sterilized	in box	500 pieces
084.22.003	1 ml	sterilized	single pack	100 pieces

PIPETTES - *"pasteur" - "glass"*

- Manufactured from neutral glass according to ISO 7712 standard.
- Ideal for transferring and dispensing liquids safely in all types of laboratories eliminating the risk of cross contamination.
- Thick walls provide extra strength eliminating the risk of breakage during application.
- Featured with a long drown capillary tip. The design of the suction part allows cotton plugging.
- Since manufactured by fully automatic system they offer reproducible drop sizes.



Pipette tip provides reproducible drop sizes at all times.



catalogue number	length	pack quantity	box quantity
084.01.001	145 mm	250 pieces	4 packs
084.01.002	225 mm	250 pieces	4 packs

DISPENSER BOX - *"for P.E pasteur pipettes"*



- Manufactured from acrylic with excellent field of vision.
- Ideal for storing and dispensing pasteur pipettes.
- Featured with a hinged lid. Once opened, the lid stands open for easy dispensing.
- Box offers safe and clean storage of pipettes without been effected from dust, moisture and other effects.
- Featured with non-skid silicone feet for stable stand.

Other technical specifications can be seen at catalogue page no 71.

BULB - *"for glass pasteur pipettes"*

- Manufactured from natural rubber particularly to be used with glass pasteur pipettes.
- They accelerate the working speed and and also prevent cross contamination.

catalogue number	pack quantity
084.03.001	100 pieces



PIPETTES - *"glass" - "class AS" - "conformity certified" - "graduated & volumetric"*



- Manufactured from neutral tubing according to ISO 648 and DIN 12687 (for volumetric pipettes), ISO 835 and DIN 12699 (for graduated pipettes) standards.
- Calibrated according to DIN/ISO Class "AS" standard.
- Featured with a ("DE-M") conformity mark according to German federal weights and measures regulations.
- Individual calibration carried out by automatic robots eliminate possible deviations from nominal values.
- Conformity mark and batch number printed on the body surface. Batch certificate can be downloaded from website.
- Carefully formed and bevelled tips ensure proper flow rate.
- Color coded ring marks at suction stem allows fast identification and sourcing.
- **Alternative 2 products:** **Graduated pipettes** / **Volumetric pipettes**
- Inscriptions and nominal values are printed with blue enamel.

graduated pipettes	*volumetric pipettes*	*volume*	*pack quantity*
021.01.001	*021.05.001*	*1 ml*	*10 pieces*
021.01.002	*021.05.002*	*2 ml*	*10 pieces*
	021.05.003	*3 ml*	*10 pieces*
	021.05.004	*4 ml*	*10 pieces*
021.01.005	*021.05.005*	*5 ml*	*10 pieces*
021.01.010	*021.05.010*	*10 ml*	*10 pieces*
	021.05.011	*11 ml*	*10 pieces*
	021.05.015	*15 ml*	*10 pieces*
021.01.020	*021.05.020*	*20 ml*	*10 pieces*
021.01.025	*021.05.025*	*25 ml*	*10 pieces*
021.01.050	*021.05.050*	*50 ml*	*10 pieces*

Carefully formed and bevelled tips ensure proper flow rate.



Color coded ring mark at suction stem allows fast identification and sourcing.





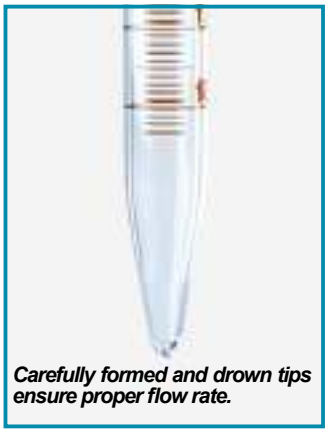
PIPETTES - "glass" - "class A" & "class B - "graduated & volumetric"



- Manufactured from neutral tubing according to ISO 648 and DIN 12687 & ISO 835 and DIN 12699 standards.
- **Alternative 2 standards:** **DIN/ISO class A** / **DIN/ISO class B**
- Carefully formed and bevelled tips ensure proper flow rate.
- **Alternative 2 products:** **Graduated pipettes** / **Volumetric pipettes**
- Inscriptions and nominal values are printed with amber stain.
- Color coded ring marks at suction stem allows fast identification and sourcing.

graduated pipettes class A	graduated pipettes class B	volume	pack quantity
021.11.001	021.12.001	1 ml	10 pieces
021.11.002	021.12.002	2 ml	10 pieces
021.11.005	021.12.005	5 ml	10 pieces
021.11.010	021.12.010	10 ml	10 pieces
021.11.020	021.12.020	20 ml	10 pieces
021.11.025	021.12.025	25 ml	10 pieces
021.11.050	021.12.050	50 ml	10 pieces

volumetric pipettes class A	volumetric pipettes class B	volume	pack quantity
021.15.001	021.16.001	1 ml	10 pieces
021.15.002	021.16.002	2 ml	10 pieces
021.15.005	021.16.005	5 ml	10 pieces
021.15.010	021.16.010	10 ml	10 pieces
021.15.015	021.16.015	15 ml	10 pieces
021.15.020	021.16.020	20 ml	10 pieces
021.15.025	021.16.025	25 ml	10 pieces



Carefully formed and drown tips ensure proper flow rate.



Color coded ring mark at suction stem allows fast identification and sourcing.





Various supplementary products such as pipette washers can be selected from catalogue page no 189.

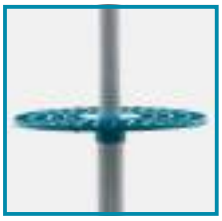




STAND - *"for pipettes" - "carrousel"*

- Manufactured from polypropylene for holding up to 94 pipettes vertically.
- The round carrousel stand can rotate 360° around stand axis enabling easy reach to each pipette.
- The grid patterned upper disc which is concentric with the carrier plate keeps the pipettes in vertical and correct position.
- The carrier plate consists of four concentric troughs with tapered sides and open bottoms which cradle the pipette tips protectively.
- Drained liquid is collected by a stationary rack at the bottom part.
- Stability is guaranteed by 48 cm total heigth and 23 cm base diameter.

catalogue number	pack quantity
022.01.001	1 piece



The grid patterned upper disc which is concentric with the carrier plate keeps the pipettes in vertical and correct position.



The carrier plate consists of four concentric troughs with tapered sides and open bottoms which cradle the pipette tips protectively.



Drained liquid is collected by a stationary rack at the bottom part.



STAND - *"for pipettes" - "linear"*

- Manufactured from polypropylene for holding up to 12 pipettes horizontally with 208 x 155 x 232 mm dimensions.
- Easily dismantable for storage and cleaning purposes.
- Offers ideal storage of pipettes without any pressure on pipette tips.

catalogue number	pack quantity
022.02.001	1 piece



Easily dismantable for storage and cleaning purposes.





TRAY - *"for pipettes"*

- Manufactured from polystyrene for easy organisation of all kind of pipettes with 285 x 215 x 40 mm dimensions.
- Cranated design enables safe holding of large size pipettes in longitudinal direction and short size pipettes in transverse direction.
- Can also be used in drawers as well as on bench tops.

catalogue number	pack quantity
022.03.001	1 piece

TRAY - *"for pipettes"*

- Manufactured from polystyrene for easy organisation of all kind of pipettes with 423 x 300 x 30 mm dimensions.
- 1-2-5 and 10 ml pipettes can be stored at 4 different compartments.
- Can also be used in drawers as well as on bench tops.

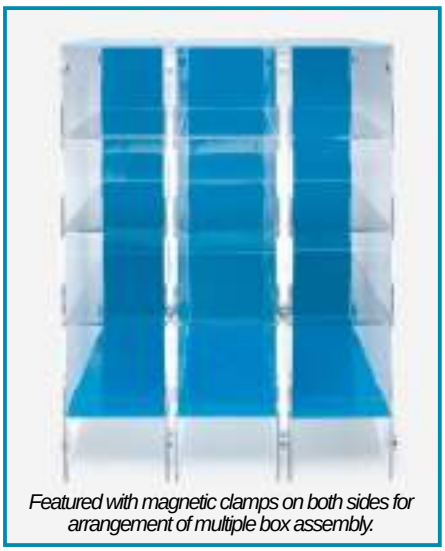
catalogue number	pack quantity
022.03.011	1 piece

RACK - *"for pipettes"*

- Manufactured from acrylic for easy organisation of all kinds of pipettes.
- 4 shelves guarantee easy and fast reach of all pipettes between 1 ml to 50 ml size with in arm's reach.
- Angled design of the pipette shelves prevents the risk of pipettes falling out even the shelf is fully filled.
- Featured with magnetic clamps on both sides for arrangement of multiple box assembly.

catalogue number	dimensions	pack quantity
022.06.001	290x90x400 mm	1 piece





Featured with magnetic clamps on both sides for arrangement of multiple box assembly.

BOX - *"for pipettes" - "aluminium" - "adjustable height"*

- Manufactured from pure aluminium with cylindrical body form.
- Designed to carry pipettes with different volume and height during autoclave sterilization process. The total box height is adjustable.
- Unique construction guarantees the entrance of steam into the box and optimizes the autoclaving process.
- Box consists of two parts; the bottom base part and a telescopic lid. The lid height can be adjusted by soft slide of the lid onto the base part. By this mean, the box can be used with pipettes of different volume and height.
- Each box is supplied with a silicone pad that fits to the box base.
- Silicone pad acts as a shock absorber and prevents the risk of breakage during under even most inconvenient conditions.



Box consists of two parts; the bottom base part and a telescopic lid.

The lid can be height adjusted by soft slide of the lid onto the base part.

By this mean, the box can be used with pipettes of different volume and height.



Silicone pad supplied with the box acts as a shock absorber and prevents the risk of breakage of pipettes.

catalogue number	box diameter	min. & max. box height	pack quantity
022.03.002	60 mm	145-235 mm	1 piece
022.03.003	60 mm	280-420 mm	1 piece



BOX - *"for pipettes" - "stainless steel" - "fix height"*

- Manufactured from corrosion resistant, AISI 304 stainless steel with rectangular form.
- Designed to carry pipettes with different volume and height during sterilization process.
- The total box height is not adjustable.
- Box consists of two parts; the box bottom base part and a lid.
- Each box is supplied with a silicone pad that fits to the box base.
- Silicone pad acts as a shock absorber and prevents the risk of breakage during under even the most inconvenient conditions.



Box consists of two parts; the box bottom base part and a lid. The total box height is not adjustable.



Silicone pad supplied with the box acts as a shock absorber and prevents the risk of breakage of pipettes.

catalogue number	box base dimensions	box height	pack quantity
022.04.001	70x70 mm	210 mm	1 piece
022.04.002	70x70 mm	430 mm	1 piece





PIPETTE FILLERS - *"pi-pump"*

- A simple yet practical pipette filler for graduated and volumetric pipettes from 2 ml to 25 ml volume range.
- Ergonomic body design perfectly fit to any hand form and offers both left or right handers an easy operation.
- Pipette stem smoothly fits to the flexible silicone chuck and are firmly hold in position.
- Rotating the existing handwheel on the body upwards draws the liquid precisely to the desired level.
- Rotating the handwheel downwards lets the liquid in the pipette discharge partially. Even very small volumes can be dispensed precisely.
- A slight pressure applied to the fast release lever lets the liquid flow-out for complete delivery.
- Can be quickly and easily dismantled for safe and fast cleaning.

catalogue number	for pipette volume	color code	pack quantity
011.01.002	up to 2 ml	blue	1 piece
011.01.010	up to 10 ml	green	1 piece
011.01.025	up to 25 ml	red	1 piece



Drawing the liquid

Rotate the handwheel upward and draw the liquid to the desired position.
Piston remains in the desired position after stopping the rotation of the handwheel.



Discharge the liquid

Partial or complete delivery can be achieved by totaling the handwheel downward. Even very small volumes such as half a drop can be discharged precisely.



Blow-out the liquid

A slight pressure applied to the fast release lever opens the release valve and lets the liquid to flow-out freely assuring complete emptying of the pipette content.



PIPETTE FILLER - *"maxi"*

- Advance yet easily controllable pipette filler for graduated and volumetric pipettes from 1 ml to 100 ml volume range. Even unexperienced users can adjust the meniscus precisely.
- The optimised valve system allows easy draw of liquid without excess pressure.
- Very easy to use; before attaching the pipette first squeeze the silicone bulb and release the air inside. Attach the pipette.
- Move the pipetting knob upword for filling, downward for discharging. For blow-out just push the discharge bellow.
- Ergonomic body design perfectly fits to any hand form and offers both left or right handers an easy operation.
- Pipette stem smoothly fits to the flexible silicone chuck and are firmly hold in position.
- A replaceable hydrophobic membrane filter in the intake cone prevents cross contamination and stops the penetration of impurities.

catalogue number	product descriptions	pack quantity
011.02.003	pipette filler	1 piece
011.02.003.3	spare filter	1 piece



Before attaching the pipette compress the suction below for vacuum formation.



Drawing or discharge of the liquid can be controlled precisely by moving the pipetting knob up or downward.



Residual liquids can be expelled by pressing the expel button.

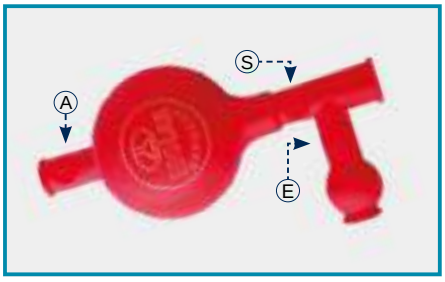


Membrane filter in the intake cone prevents cross contaminations.



PIPETTE FILLER - *"macro" - "standard"*

- Bulb manufactured from natural rubber. Most common pipette filler for all types of pipette up to 10 ml volume.
- Evacuation can be easily done by pressing the related automatic valves.
- Offers an easy single hand use. Pressing the valve the liquid is drawn up to the desired level, dispensed partially or blown out.



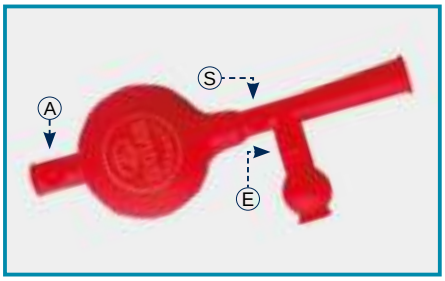
For evacuation of the air in the body just press the bulb and valve"A" simultaneously. For drawing the liquid with desired speed press the valve "S". For draining the liquid partially or completely simply press valve "E".

catalogue number	pack quantity
011.02.001	1 piece



PIPETTE FILLER - *"macro" - "universal"*

- Bulb manufactured from natural rubber. Most common pipette filler for all types of pipette up to 100 ml volume.
- Evacuation can be easily done by pressing the related automatic valves.
- Offers an easy single hand use. Pressing the valve the liquid is drawn up to the desired level, dispensed partially or blown out.



For evacuation of the air in the body just press the bulb and valve"A" simultaneously. For drawing the liquid with desired speed press the valve "S". For draining the liquid partially or completely simply press valve "E".

catalogue number	pack quantity
011.02.002	1 piece



PIPETTE FILLER

- Simple and easily controllable pipette filler for all pipettes up to 15 ml volume.
- Featured with a white polypropylene attachment containing a silicone conical adapter that gently seals the pipette without twisting and reducing breakage.
- Very easy to use; Before attaching the pipette first squeeze the bulb and release the air inside. Then attach the pipette.
- Slowly release the bulb pressure and fill the pipette. For discharge, squeeze the bulb again.



Supplied with a handy elastic band for hanging the filler on a bottle or around the wrist.

catalogue number	pack quantity
011.04.001	1 piece



PIPETTE FILLER

- Manufactured from natural rubber. Ideal for simple pipetting applications. Offered with three different volume capacity.
- Very easy to use; Before attaching the pipette first squeeze the bulb and release the air inside. Then attach the pipette.
- Slowly release the bulb pressure and fill the pipette. For discharge, squeeze the bulb again.



Contoured body shape and heavy wall enables increased grip for better handling.

catalogue number	for pipette volume	pack quantity
011.04.003	max 3 ml	10 pieces
011.04.005	max 5 ml	10 pieces
011.04.010	max 10 ml	10 pieces



PIPETTE PUMP - *"electrical"*

- Can be used with all kinds of pipettes from 0,1 ml to 100 ml volume range.
- Ergonomic, light weight and well-balanced body offers full comfort and fatigue-free pipetting for extended hours.
- Powerful yet quiet pump can fill a 25 ml pipette under 4 seconds.
- Pump speed can be adjusted to 8 different levels for precise control of the speed. LCD display visually shows the selected speed. Also offers gravimetric drain.
- Easily changeable lithium-ion batteries provide 8 hours continuous use. LCD display provides visual confirmation of remaining battery power.
- The high-tech charger prevents over charging and provides long life cycle. Approximately 2-3 hours is required for full charge.
- Silicone adapter in the intake cone holds firmly the pipettes in position. Replaceable hydrophobic 0,45µm PTFE filter secures cross contamination.
- Supplied with a wall mounting stand and a dual-position stand.

catalogue number	for pipettes	speed range	pack quantity
010.01.005	0,1 - 100 ml	adjustable	1 piece



Large LCD display provides visual confirmation of remaining battery power and selected filling speed.

Desired speed can be selected by pressing the speed adjustment button. Speed can be adjusted to 8 different levels.



Concave padded triggers ensures the filler to perform many hours of stress-free filling and dispensing.



Replaceable hydrophobic 0,45 µm PTFE filter secures cross contamination.
Catalogue No: 610.01.005

Silicone adapter in the intake cone holds firmly the pipettes in position.





Supplied with a wall mounting stand and a dual-position desk stand.

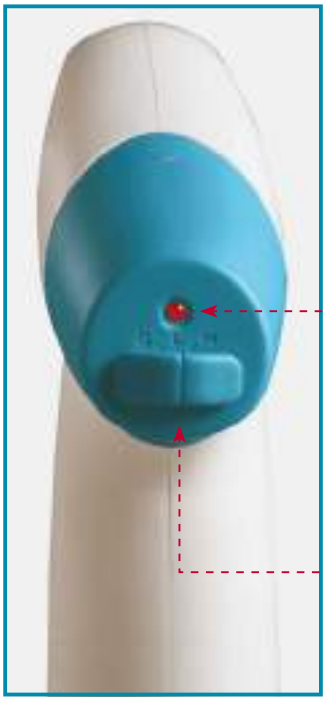


PIPETTE PUMP - *"electrical"*



- Can be used with all kinds of pipettes from 0,1 ml to 100 ml volume range.
- Ergonomic, light weighted and well balanced body offers full comfort and fatigue-free pipetting for extended hours.
- Powerful yet quiet pump can fill a 25 ml pipette under 4 seconds.
- Pump speed can be selected as high and low speed modes. Also offers gravity drain option if necessary.
- Easily changeable lithium-ion batteries provide 8 hours continuous use.
- Featured with a visual red bulb low battery indicator.
- The intelligent charger prevents over charging. Very short charging time (approximately 2-3 hours) required for full charge.
- Safety check valve and replaceable hydrophobic 0,45 µm PTFE filter provides double protection against fluid penetration.
- Supplied with a wall mounting stand and a single-position stand.

catalogue number	*for pipettes*	*speed range*	*pack quantity*
010.01.006	*0,1 - 100 ml*	*adjustable*	*1 piece*



Featured with a visual red bulb low battery indicator.

Pump speed can be selected as high and low speed modes. Also offers gravity drain option if necessary.



Concave padded triggers ensures the filler to perform many hours of stress-free filling and dispensing.



Replaceable hydrophobic 0,45 µm PTFE filter secures cross contamination.
Catalogue No: 610.01.006

Silicone adapter in the intake cone holds firmly the pipettes in position.



Supplied with a wall mounting stand and a dual-position desk stand.





BURETTE - *"digital" - "manuel control"*

- Guarantees reliable measuring results with bubble-free dispensing and consistent delivery.
- Discharge tube can be turned to any desired position since the body can rotate 360° round the axis.
- The angled, large and 4 digit LCD display clearly shows the titration values till to 99,99 ml and eliminate meniscus level errors.
- Continuous display of dispensed volume with zero reset feature for multiple titrations.
- PTFE plunger and borosilicate glass barrel allow dispensing of most aggressive solutions.
- Visible glass barrel allows inspection of the liquid before and during dispensing.
- Precision valve ensures easy priming and minimum waste with no back leakage into the reservoir bottle.
- Supplied with a battery with a lifetime for 60.000 titrations.
- Featured with a low battery indicator on the LCD display.
- Featured with a height adjustable telescopic intake tube that can fit to variable heights of different reservoir bottles.
- Supplied with an individual calibration certificate and various reservoir bottle neck adaptors.



The angled, large and 4 digit LCD display clearly shows the titration values till to 99,99 ml and eliminate meniscus level errors.

catalogue number	volume range	volume accuracy	pack quantity
007.01.001	50 ml	0,01 ml	1 piece



BOTTLES - *"reservoir" "with side arm" - "glass"*

- Manufactured from thick walled glass with side arm and easy to fill large neck.
- Ideal reservoir bottles to be used with dispensers and digital burettes.
- Side arm allows the filling without disambling of the already assembled dispenser or digital burette.

clear bottles	amber bottles	volume	pack quantity
007.02.001	007.02.002	1000 ml	1 piece
007.02.003	007.02.004	2000 ml	1 piece





BOTTLES - *"reservoir" "with side arm" - "polyethylene"*

- Manufactured from thick walled polyethylene with side arm and easy to fill large neck.
- Ideal reservoir bottles to be used with dispensers and digital burettes.
- Side arm allows the filling without disassembling of the already assembled dispenser or digital burette.

clear bottles	amber bottles	volume	pack quantity
007.02.005	007.02.006	1500 ml	1 piece







BURETTE - *"digital" - "motor driven"*

catalogue number	volume range	resolution	titration speed	pack quantity
007.01.002	0,01 ml to 99,99 ml	0.01 ml	16 stage	1 piece







- The most advanced digital burette featured with motor controlled piston movement. Conforms ISO 8655 standard.
- Guarantees reliable measuring results with bubble-free dispensing and consistent delivery with self calibration function.
- Offers an operating volume range from 0,01 ml to 99,99 ml with 0,01 ml resolution with a maximum piston lift of 10 ml.
- High quality motor activates the piston ensuring excellent precision and accuracy.
- Back drawn valve for recirculating the liquid into the bottle without any loss of reagent.
- User friendly TFT control touchscreen guides the user for a quick and accurate titration. System also avoids manual disturbance and human errors.
- 16 stage dispensing speeds allow the user to achieve titration end point precisely.
- Dispensing can be performed by a touch at the screen and stops immediately when the touch is removed.
- BSG, PTFE, FEP are used in the liquid path provides excellent chemical resistance to most common laboratory reagents. Outer surface is made of ABS.
- Visible glass barrel allows inspection of the liquid before and during dispensing.
- Precision valve ensures easy priming and minimum waste with no back leakage into the reservoir bottle.
- Discharge tube can be turned to any desired position since the body can rotate 360° round the axis.
- Featured with a built in ergonomic and compact ultra flat magnetic stirrer for easier and faster titration and also more stable and consisting results.
- Magnetic stirrer has a motor free design and featured with 5 programmable speeds.



DISPENSER - *"repetitive"*

- Ergonomically designed and light weight dispenser for fast and simple serial dispensing of liquids.
- Perfect tool for applications where repetitive dispensing is a must and where time is valuable.
- Very easy to use; first fill the dispenser tip with the liquid similar to a syringe. Then press the pipette button for each dispensing step.
- All functions can be controlled only by three control mechanisms.
- Offers 5 volume settings and 7 different dispenser tip sizes results with 35 alternative different volumes.
- Depending on the size & volume of the tip used - it is possible to dispense between 0,5 ml to 50 ml liquid in multi-intervals.
- Works on the positive displacement principle which enables routine, fast and accurate dispensing of even high density and high vapour liquids.
- Offers smooth and fatigue free operations for long working hours.
- Guarantees precise volume setting, clearly visible volume adjustment, precise gear mechanism for reproducible and accurate pipetting.
- Exchange of dispenser tips is safe and easy.
- Dispensing volume can be selected from the volume scale mounted on the dispenser body.







Dispensing volume can be selected from the volume scale mounted on the dispenser body.

catalogue number	*pack quantity*
008.06.001	*1 piece*



TIPS - *"for repetitive dispensers"*

- Dispenser tips are manufactured from clear polypropylene.
- 7 different tip sizes offer 35 alternative different volumes.
- It is possible to dispense between 0,5 ml to 50 ml liquid in multi-interval depending on the selected tip.
- Graduation on the side of the tips enables visual confirmation of the volume.
- Adapter for 25 & 50 ml tip should be ordered seperately **Cat. No: 008.06.002**

catalogue number	*dispenser tip volume*	*pack quantity*
008.06.005	*0.50 ml*	*10 pieces*
008.06.012	*1.25 ml*	*10 pieces*
008.06.025	*2.50 ml*	*10 pieces*
008.06.050	*5.00 ml*	*10 pieces*
008.06.125	*12.50 ml*	*10 pieces*
008.06.250	*25.00 ml*	*10 pieces*
008.06.500	*50.00 ml*	*10 pieces*
008.06.002	*adapter for 25 & 50 ml*	



Graduation on the side of the tips enables visual confirmation of the volume.





DISPENSER - *"digital" - "motor driven"*

- The most advanced dispenser featured with motor controlled piston movement.
- Individually calibrated according to ISO 8655 standard and supplied with a calibration certificate.
- BSG, PTFE, FEP are used in the liquid path provides excellent chemical resistance to most common laboratory reagents. Outer surface is made of ABS.
- Guarantees reliable results with bubble-free dispensing and consistent delivery.
- Offers an operating volume range from 0,1 ml to 99,9 ml with 0,1 ml resolution with a maximum piston lift of 10 ml.
- Featured with two dispensing modes; as a dispenser and as a stepper.
- High quality motor activates the piston ensuring excellent precision and accuracy.
- User friendly TFT control touchscreen guides the user for a quick and accurate titration. System also avoids manual disturbance and human errors.
- Dispensing can be performed by a touch at the screen and stops immediately when the touch is removed.
- PTFE plunger and borosilicate glass barrel allow dispensing of most aggressive solutions.
- Visible glass barrel allows inspection of the liquid before and during dispensing.
- Precision valve ensures easy priming and minimum waste with no back leakage into the reservoir bottle.
- Discharge tube can be turned to any desired position since the body can rotate 360° round the axis.
- Supplied with an individual calibration certificate and various reservoir bottle neck adaptors.

catalogue number	volume range	pack quantity
008.11.001	0,01 ml to 99,9 ml	1 piece



TFT control touchscreen guides the user for a quick and accurate titration.



Featured with two dispensing modes; as a dispenser and as a stepper.



Supplied with an individual calibration certificate and various reservoir bottle neck adaptors.

DISPENSERS - *"advanced model"*



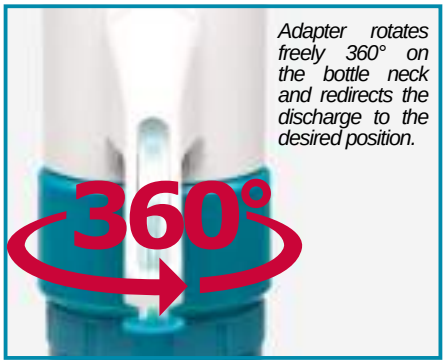
- Guarantees reliable results with bubble-free dispensing of liquids.
- Fully autoclavable body provides high precision with consistent delivery.
- Available in 6 volume ranges covering a range from 2,5 ml to 100 ml.
- Individually calibrated according to ISO 8655 standard and supplied with a calibration certificate.
- All wetted parts are PTFE, FEP, PFA and borosilicate glass ensuring highest degree of chemical resistance.
- Springless PTFE valve manifold ensures excellent chemical compatibility and leak-proof functioning.
- This also ensures wiper like movement of the piston making it suitable for all kinds of crystalline liquids.
- PTFE piston and viton "O" ring guarantees fatique-free, smooth, effortless piston movement and high accuracy.
- Dosing cylinder is protected against breakage by a polypropylene sleeve preventing glass spillage in case of any accidental breakage.
- Large volume scale printed on both sides of the body guarantees fast, easy and precise volume readings.
- Adapter rotates freely 360° on the bottle neck and redirects the discharge to the desired position.
- Fast, easy and reliable volume setting with 180° rotating volume adjustment knob.
- Discharge tube cap reduces contact with the air and prevents drying. Also prevents accidental dropping.
- Supplied with 4 adaptors (28, 38, 40 & 45 mm diameter) to fit almost all available reservoir bottle necks.
- The telescopic extractable intake tube can be adjusted simply by pulling according to different bottle heights.
- Specially designed calibration tool is provided with each dispenser for convenient and fast user recalibration.

- **Alternative 2 dispensers:**
  - **without recirculation valve**
  - **with recirculation valve which prevents reagent loss during purging**

without re-circulation valve	*with re-circulation valve*	*volume*	*increment*	*accuracy ± % ± ml*	*pack quantity*
008.12.002	*008.15.002*	*0.3 - 2.5 ml*	*0.05 ml*	*0.6 0.015*	*1 piece*
008.12.005	*008.15.005*	*0.5 - 5 ml*	*0.10 ml*	*0.5 0.025*	*1 piece*
008.12.010	*008.15.010*	*1.0 -10 ml*	*0.20 ml*	*0.5 0.050*	*1 piece*
008.12.030	*008.15.030*	*2.5 - 30 ml*	*0.50 ml*	*0.5 0.150*	*1 piece*
008.12.060	*008.15.060*	*5.0 - 60 ml*	*1.00 ml*	*0.5 0.300*	*1 piece*
008.12.100	*008.15.100*	*10.0 - 100 ml*	*2.00 ml*	*0.5 0.500*	*1 piece*



Large volume scale printed on both sides of the body guarantees fast, easy and precise volume readings.



Adapter rotates freely 360° on the bottle neck and redirects the discharge to the desired position.



Fast, easy and reliable volume setting with 180° rotating volume adjustment knob.



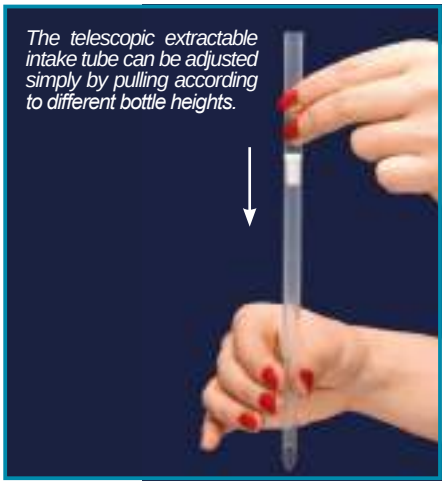
Discharge tube cap reduces contact with the air and prevents drying. Also prevents accidental dropping.



Built in recirculation valve prevents reagent loss during purging,



Supplied with 4 adaptors to fit almost all available reservoir bottle necks.



The telescopic extractable intake tube can be adjusted simply by pulling according to different bottle heights.



Specially designed calibration tool is provided with each dispenser for convenient and fast user recalibration.



Supplied in a perfectly designed modern and sturdy box featured for compartments for every piece.

DISPENSERS - *"with & without recirculation valve"*



- Guarantees reliable results with bubble-free dispensing of liquids. Fully autoclavable body provides high precision with consistent delivery.
- Available in 6 volume ranges covering a total range from 2,5 ml to 100 ml.
- Individually calibrated according to ISO 8655 standard and supplied with a calibration certificate.
- All wetted parts are PTFE, FEP and borosilicate glass ensuring highest degree of chemical resistance.
- Springless PTFE valve manifold ensures excellent chemical compatibility and leak-proof functioning.
- PTFE piston and viton "O" ring guarantees fatigue-free, smooth, effortless piston movement and high accuracy.
- This also ensures wiper like movement of the piston making it suitable for all kinds of crystalline liquids.
- Dosing cylinder is protected against breakage by a polypropylene sleeve preventing glass spillage in case of any accidental breakage.
- Specially designed calibration tool is provided with each dispenser for convenient and fast user recalibration.

- **Alternative 2 dispensers:**
  - **without recirculation valve**
  - **with recirculation valve which prevents reagent loss during purging**

without re-circulation valve	with re-circulation valve	volume	increment	accuracy ± % ± ml	pack quantity
008.02.002	008.05.002	0.3 - 2.5 ml	0.05 ml	0.6 0.015	1 piece
008.02.005	008.05.005	0.5 - 5 ml	0.10 ml	0.5 0.025	1 piece
008.02.010	008.05.010	1.0 -10 ml	0.20 ml	0.5 0.050	1 piece
008.02.030	008.05.030	2.5 - 30 ml	0.50 ml	0.5 0.150	1 piece
008.02.060	008.05.060	5.0 - 60 ml	1.00 ml	0.5 0.300	1 piece
008.02.100	008.05.100	10.0 - 100 ml	2.00 ml	0.5 0.500	1 piece



MICROPIPETTES - *"adjustable volume" - "non-autoclavable"*

- 9 models cover volume range from 0,25 µl to 10 ml and combines all the requirements of a modern pipette.
- Each pipette is individually calibrated according to ISO 8655 and certified.
- Serial number is printed on each pipette.
- Ultralight and with balanced body offers greatest comfort for extended pipetting periods.
- Contoured and ergonomic body shape that fits perfectly to all hand sizes.
- Featured with a universal cone for standard pipette tips.
- Guarantees fast and easy volume setting with single hand. Volume display is always fully visible.
- Thumb friendly soft spring pipetting system reduces plunger pressure and guarantees the whole procedure more comfortable and less energetic.
- Ergonomic finger hook offers comfortable handling and to take the weight for a more relaxed grip.
- Tip ejector with large pad reduces thumb pressure workload and guarantees easy tip ejection.
- Supplied with an individual calibration certificate and a calibration tool for convenient and fast user recalibration.



Guarantees fast and easy volume setting with single hand. Volume display is always fully visible.



Ergonomic finger hook offers comfortable handling and to take the weight for a more relaxed grip.



Tip ejector with large pad reduces thumb pressure workload and guarantees easy tip ejection.

non-autoclavable pipettes	volume range	test volume	max. % inaccuracy	pack quantity
011.06.002	0.1 - 2.5 µl	2.5 µl	2.50 %	1 piece
011.06.010	0.5 - 10 µl	10 µl	1.00 %	1 piece
011.06.020	2 - 20 µl	20 µl	0.90 %	1 piece
011.06.050	5 - 50 µl	50 µl	0.60 %	1 piece
011.06.100	10 - 100 µl	100 µl	0.80 %	1 piece
011.06.200	20 - 200 µl	200 µl	0.60 %	1 piece
011.06.901	100 - 1000 µl	1000 µl	0.60 %	1 piece
011.06.905	1000 - 5000 µl	5000 µl	0.50 %	1 piece
011.06.910	2000 - 10000 µl	10 ml	0.70 %	1 piece



Various supplementary products such as pipette tips can be selected from catalogue page no 40 & 41.





MICROPIPETTES - *"adjustable volume" - "autoclavable"*

- 9 models cover volume range from 0,25 µl to 10 ml and combines all the requirements of a modern pipette.
- Each pipette is individually calibrated according to ISO 8655 and certified.
- Serial number is printed on each pipette.
- Autoclavable ultralight and with balanced body offers greatest comfort for extended pipetting periods.
- Contoured and ergonomic body shape that fits perfectly to all hand sizes.
- Featured with a universal cone for standard pipette tips.
- Guarantees fast and easy volume setting with single hand. Volume display is always fully visible.
- Thumb friendly soft spring pipetting system reduce plunger pressure and guarantees the whole procedure more comfortable and less energetic.
- Ergonomic finger hook offers comfortable handling and to take the weight for a more relaxed grip.
- Tip ejector with large pad reduces thumb pressure workload and guarantees easy tip ejection.
- Supplied with an individual calibration certificate and a calibration tool for convenient and fast user recalibration.



Guarantees fast and easy volume setting with single hand. Volume display is always fully visible.



Ergonomic finger hook offers comfortable handling and to take the weight for a more relaxed grip.



Tip ejector with large pad reduces thumb pressure workload and guarantees easy tip ejection.

autoclavable pipettes	volume range	test volume	max. % inaccuracy	pack quantity
011.05.002	0.1 - 2.5 µl	2.5 µl	2.50 %	1 piece
011.05.010	0.5 - 10 µl	10 µl	1.00 %	1 piece
011.05.020	2 - 20 µl	20 µl	0.90 %	1 piece
011.05.050	5 - 50 µl	50 µl	0.60 %	1 piece
011.05.100	10 - 100 µl	100 µl	0.80 %	1 piece
011.05.200	20 - 200 µl	200 µl	0.60 %	1 piece
011.05.901	100 - 1000 µl	1000 µl	0.60 %	1 piece
011.05.905	1000 - 5000 µl	5000 µl	0.50 %	1 piece
011.05.910	2000 - 10000 µl	10 ml	0.70 %	1 piece





Various supplementary products such as pipette stands, dispenser boxes, pipetting reservoirs can be selected from catalogue pages no 42 & 43 & 44.

MICROPIPETTES - *"adjustable volume" - "autoclavable" - "for research"*



High precision pipettes which combine all the requirements of a modern pipette with highest level of accuracy and precision.



- One pipette with exchangeable fix-volume controllers solves all your problems.
- 9 models cover volume range from 0,2 µl to 10 ml and fullfill all the requirements of a modern pipette.
- Significantly lighter weight than many other pipettes.
- Autoclavable, ultralight and with balanced body offers greatest comfort for extended pipetting periods.
- Contoured and ergonomic body shape that fits perfectly to all hand sizes.
- PP/PVDF/ anodised aluminium and stainless steel body construction guarantees the highest level of accuracy and precision.
- Dual "O" ring technology guarantees best tip fit. Outer "O" rings makes tip loading easy.
- Fast and easy volume setting with single hand. Volume setting requires 50% fewer turns compared to some brands.
- Volume lock prevents accidental volume changes during operation. Volume display is always fully visible.
- Thumb friendly soft spring pipetting system reduce plunger pressure by up to 50% and guarantees the whole procedure more comfortable.
- Ergonomic finger hook offers comfortable handling and to take the weight for a more relaxed grip.
- Color-coded tip ejector reduces thumb workload by 70 % compared with other brands.
- Large pad of tip ejector guarantees easy tip ejection.
- Each pipette is individually calibrated and certified. Serial number is printed on each pipette.

catalogue number	volume range	inaccuracy	imprecision %	color code	pack quantity
011.20.002	0.2 - 2.0 µl	12.00 / 2.00	6.00 / 1.00		1 piece
011.20.010	0.5 - 10 µl	2.50 / 1.00	1.80 / 0.50		1 piece
011.20.020	2 - 20 µl	5.00 / 1.00	1.50 / 0.30		1 piece
011.20.050	5 - 50 µl	2.00 / 1.00	1.20 / 0.30		1 piece
011.20.100	10 - 100 µl	2.50 / 0.70	1.00 / 0.20		1 piece
011.20.200	20 - 200 µl	2.50 / 0.60	0.70 / 0.20		1 piece
011.20.901	100 - 1000 µl	2.00 / 0.80	0.60 / 0.20		1 piece
011.20.905	1 - 5 ml	1.20 / 0.60	0.30 / 0.15		1 piece
011.20.910	1 - 10 ml	3.00 / 0.60	0.60 / 0.15		1 piece

dual "O" ring



Dual "O" ring technology: guarantees best tip fit.

- Outer "O" rings make tip loading easier. The first "O" ring creates a smooth seal while the second "O" ring creates a positive stop to ensure that the tips are airtight, sealed, and can be ejected with the smallest amount of force.

volume lock feature



Select the desired volume and lock the indicator.

- Volume lock feature allows selecting the desired volume and locking the indicator to achieve a more reliable pipetting experience.
- Locking feature prevents accidental volume changes during pipetting procedures.
- Simply slide the button to the upper position to lock or lower to release.

Exchangeable volume control knobs


Take off the variable volume knob.

Change your variable volume pipette to a fix-volume pipette in seconds.

- Use one variable-volume pipette with many pre-calibrated fix-volume knobs and substantially reduce costs.
- Take off the variable volume control knob and insert any desired fix-volume knob in seconds.
- Save time by no longer turning micrometer dials.
- Eliminate setting errors by using pre-calibrated knobs. Fix-volume knobs are calibrated for consistent pipetting the same amount.


Then insert the fixed volume knob.

ordering info for volume knobs

catalogue number	technical specification of volume knobs	pack quantity
011.23.001	1 µl fixed volume controller knob for 0.2 - 2 µl pipette	1 piece
011.23.002	2 µl fixed volume controller knob for 0.2 - 2 µl pipette	1 piece
011.24.005	5 µl fixed volume controller knob for 0.5 - 10 µl pipette	1 piece
011.24.010	10 µl fixed volume controller knob for 0.5 - 10 µl pipette	1 piece
011.25.010	10 µl fixed volume controller knob for 2 - 20 µl pipette	1 piece
011.25.020	20 µl fixed volume controller knob for 2 - 20 µl pipette	1 piece
011.26.020	20 µl fixed volume controller knob for 5 - 50 µl pipette	1 piece
011.26.025	25 µl fixed volume controller knob for 5 - 50 µl pipette	1 piece
011.26.050	50 µl fixed volume controller knob for 5 - 50 µl pipette	1 piece
011.27.030	30 µl fixed volume controller knob for 10 - 100 µl pipette	1 piece
011.27.050	50 µl fixed volume controller knob for 10 - 100 µl pipette	1 piece
011.27.100	100 µl fixed volume controller knob for 10 - 100 µl pipette	1 piece
011.28.100	100 µl fixed volume controller knob for 20 - 200 µl pipette	1 piece
011.28.200	200 µl fixed volume controller knob for 20 - 200 µl pipette	1 piece
011.29.300	300 µl fixed volume controller knob for 30 - 300 µl pipette	1 piece
011.30.500	500 µl fixed volume controller knob for 100 - 1000 µl pipette	1 piece
011.30.901	1000 µl fixed volume controller knob for 100 - 1000 µl pipette	1 piece
011.31.925	2,5 ml fixed volume controller knob for 1 - 5 ml pipette	1 piece

ultimate interior design





Ultimate interior design allows almost no maintenance.

- Steel alloy plunger does not bend or brake. Thick polymer seals do not split or leak.
- Robust steel alloy body protects internal components and impact damage if dropped. Large ejection spring provides low ejection forces.
- Aluminium alloy shaft does not wear down from loading friction.

Traditional pipettes needs continuous maintenance.

- Small plastic seals and "O" rings wear-out often and need frequent replacement.
- Plastic shaft wear down from the friction involved with tip loading and needs frequent replacement.
- Plastic body provides a single seal and might not protect fragile internal components against impact.

autoclavable

Guaranteed autoclave sterilization without the risk of volume recalibration.



Unlike to other autoclavable pipettes, our pipettes require no volume calibration after sterilization process.

- Durable PP/PVDF/anodised aluminium and stainless steel body construction and stainless steel spring enable easy and safe sterilization.
- First take off the volume knob. Then put the main body into the autoclave.
- The pipette body can be fully autoclavable at 121°C and 0,1 MPa conditions for 20 minutes.

MICROPIPETTES - *"8 channel" - "autoclavable" - "for research"*



- 8 channel pipettes share same features of single channel pipettes.
- 4 models cover volume range from 0,5 µl to 300 µl and fullfill all the requirements of a modern pipette.
- They offer significantly lighter weight than many other pipettes.
- Autoclavable, ultralight and with balanced body offers greatest comfort for extended pipetting periods.
- Contoured and ergonomic body shape that fits perfectly to all hand sizes.
- PP/PVDF/ anodised aluminium and stainless steel body construction guarantees the highest level of accuracy and precision.
- Dual "O" ring technology guarantees best tip fit. Outer "O" rings make tip loading easy.
- Fast and easy volume setting with single hand. Volume setting requires 50% fewer turns compared to some brands.
- Volume lock prevents accidental volume changes during operation. Volume display is always fully visible.
- Large pad of tip ejector guarantees easy tip ejection.
- Thumb friendly soft spring pipetting system reduces plunger pressure by up to 50%.
- Ergonomic finger hook offers comfortable handling and to take the weight for a more relaxed grip.
- Color-coded tip ejector reduces thumb workload by 70 %.
- Each pipette is individually calibrated and certified. Serial number is printed on each pipette.

catalogue number	channel number	volume range	inaccuracy	imprecision %	color code	pack quantity
011.21.010	8	0.5 - 10 µl	5.00 / 2.00	3.60 / 1.00		1 piece
011.21.050	8	5 - 50 µl	3.20 / 1.40	1.60 / 0.60		1 piece
011.21.200	8	20 - 200 µl	1.80 / 1.20	0.80 / 0.40		1 piece
011.21.300	8	30 - 300 µl	1.66 / 1.40	0.60 / 0.30		1 piece

curved ejector bar

Curved ejector bar reduces the force required for ejection.



Ejection is simply done applying light pressure to the levered ejector arm.

curved ejector bar

Curved ejector bar push the pipette tips in steps.



Pipette tips are ejected one after each other. First two tips at positions ❶ fall then two tips at positions ❷ fall. Then tips at positions ❸ and ❹ follow.

rotating manifold

Rotating manifold enables pipetting in any direction.



Manifold rotates 360° in any direction and with any angle.

MICROPIPETTES - *"12 channel" - "autoclavable" - "for research"*



- 12 channel pipettes share same features of single channel pipettes.
- 4 models cover volume range from 0,5 µl to 300 µl and fullfill all the requirements of a modern pipette.
- They offer significantly lighter weight than many other pipettes.
- Autoclavable, ultralight and with balanced body offers greatest comfort for extended pipetting periods.
- Contoured and ergonomic body shape that fits perfectly to all hand sizes.
- PP/PVDF/ anodised aluminium and stainless steel body construction guarantees the highest level of accuracy and precision.
- Dual "O" ring technology guarantees best tip fit. Outer "O" rings make tip loading easy.
- Fast and easy volume setting with single hand. Volume setting requires 50% fewer turns compared to some brands.
- Volume lock prevents accidental volume changes during operation. Volume display is always fully visible.
- Large pad of tip ejector guarantees easy tip ejection.
- Thumb friendly soft spring pipetting system reduces plunger pressure by up to 50%.
- Ergonomic finger hook offers comfortable handling and to take the weight for a more relaxed grip.
- Color-coded tip ejector reduces thumb workload by 70 %.
- Each pipette is individually calibrated and certified. Serial number is printed on each pipette.

catalogue number	channel number	volume range	inaccuracy	imprecision %	color code	pack quantity
011.22.010	12	0.5 - 10 µl	5.00 / 2.00	3.60 / 1.00		1 piece
011.22.050	12	5 - 50 µl	3.20 / 1.40	1.60 / 0.60		1 piece
011.22.200	12	20 - 200 µl	1.80 / 1.20	0.80 / 0.40		1 piece
011.22.300	12	30 - 300 µl	1.66 / 1.40	0.60 / 0.30		1 piece

curved ejector bar

Curved ejector bar reduces the force required for ejection.



Ejection is simply done applying light pressure to the levered ejector arm.

curved ejector bar

Curved ejector bar push the pipette tips in steps.



Pipette tips are ejected one after each other. First two tips at positions ❶ fall then two tips at positions ❷ fall. Then tips at positions ❸ and ❹ follow.

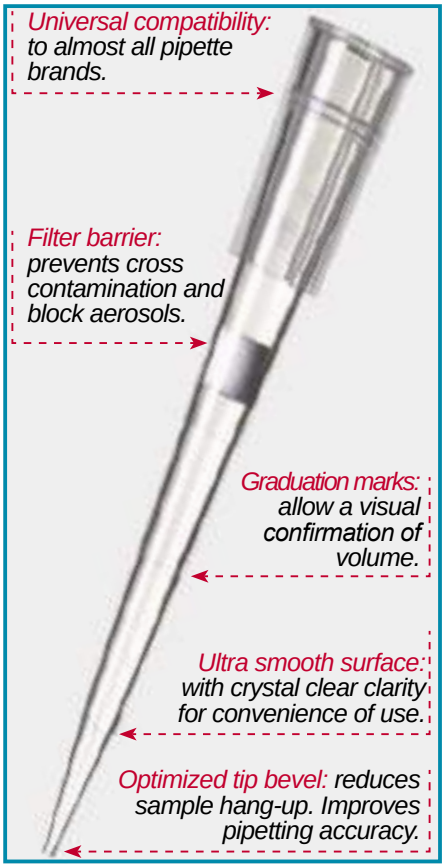
rotating manifold

Rotating manifold enables pipetting in any direction.



Manifold rotates 360° in any direction and with any angle.

volumetric measurement & liquid handling



PIPETTE TIPS - *"precision" - "for research"*

- Manufactured from FDA approved polypropylene with consistent quality.
- Manufactured in fully automatic, human touch-free, clean room facilities as DNase, RNAse, Pyrogen free. Certified on lot basis.
- Low retention is achieved by a special resin which offers minimum retention and maximum accuracy allowing complete retrieval of precious samples.
- Maximum sample recovery eliminates sample hold-up, providing the most accurate sample delivery.
- Exclusive molding technology reduces the sample loss, saves costly reagents and maximises accuracy and precision.
- Filtered tips prevents cross contamination from sample to sample by creating a physical barrier in the tip to inhibit and block aerosols.
- Optimised shape fits to all common pipettes to give perfect seal between the pipette tip and the pipette shaft.
- Different lengths within the same volume range for different applications.



Alternative packing options:

Puncture resistant bags:
- Base with a wide gusset enables self-standing and allows single-handed access.
- Heat sealed above the zip-lock closure, product integrity and cleanliness is assured right down to the last tip.

Durable boxes:
- Easy to open-close hinged lid boxes with internal rib structure provide an extremely strong platform.
- Features recessed wells to ensure perfect tip allingment.



catalogue number	product descriptions	packing specifications
T-B-010	pipette tip - ISOLAB - clear - 10 µl - bag	1000 pieces / bag
T-R-010	pipette tip - ISOLAB - clear - 10 µl - box	96 pieces / box
T-R-S-010	pipette tip - ISOLAB - clear - 10 µl - box - sterile	96 pieces / box
TF-010	pipette tip - filter - ISOLAB - clear - low retention - 10 µl - bag	1000 pieces / bag
TF-R-S-010	pipette tip - filter - ISOLAB - clear - low retention - 10 µl - box - sterile	96 pieces / box
T-B-011	pipette tip - ISOLAB - clear - long - 10 µl - bag	1000 pieces / bag
T-R-011	pipette tip - ISOLAB - clear - long - 10 µl - box	96 pieces / box
T-R-S-011	pipette tip - ISOLAB - clear - long - 10 µl - box - sterile	96 pieces / box
TF-011	pipette tip - filter - ISOLAB - clear - low retention - long - 10 µl - bag	1000 pieces / bag
TF-R-S-011	pipette tip - filter - ISOLAB - clear - low retention - long - 10 µl - box - sterile	96 pieces / box
TF-50	pipette tip - ISOLAB - with filter - clear - 50 µl - bag	1000 pieces / bag
TF-R-S-50	pipette tip - ISOLAB - clear - low retention - 50 µl - box - sterile	96 pieces / box
TF-100	pipette tip - filter - ISOLAB - clear - low retention - 100 µl - bag	1000 pieces / bag
TF-R-S-100	pipette tip - filter - ISOLAB - clear - low retention - 100 µl - box - sterile	96 pieces / box
T-B-200	pipette tip - ISOLAB - clear - 200 µl - bag	1000 pieces / bag
T-R-200	pipette tip - ISOLAB - clear - 200 µl - box	96 pieces / box
T-R-S-200	pipette tip - ISOLAB - clear - 200 µl - box - sterile	96 pieces / box
TF-200	pipette tip - filter - ISOLAB - clear - low retention - 200 µl - bag	1000 pieces / bag
TF-R-S-200	pipette tip - filter - ISOLAB - clear - low retention - 200 µl - box - sterile	96 pieces / box
T-B-300	pipette tip - clear - 300 µl - bag	1000 pieces / bag
T-R-300	pipette tip - clear - 300 µl - box	96 pieces / box
TF-300	pipette tip - with filter - clear - 300 µl - low retention - bag	1000 pieces / bag
T-R-S-300	pipette tip - clear - 300 µl - sterile - box	96 pieces / box
TF-R-S-300	pipette tip - with filter - clear - 300 µl - sterile - bag	96 pieces / box
T-B-1000	pipette tip - ISOLAB - clear - 1000 µl - bag	1000 pieces / bag
T-R-1000	pipette tip - ISOLAB - clear - 1000 µl - box	96 pieces / box
T-R-S-1000	pipette tip - ISOLAB - clear - 1000 µl - box - sterile	96 pieces / box
TF-1000	pipette tip - filter - ISOLAB - clear - low retention - 1000 µl - bag	1000 pieces / bag
TF-R-S-1000	pipette tip - filter - ISOLAB - clear - low retention - 1000 µl - box - sterile	96 pieces / box
T-B-1250	pipette tip - ISOLAB - clear - 1250 µl - bag	1000 pieces / bag
T-R-1250	pipette tip - ISOLAB - clear - 1250 µl - box	96 pieces / box
T-R-S-1250	pipette tip - ISOLAB - clear - 1250 µl - box - sterile	96 pieces / box
TF-1250	pipette tip - filter - ISOLAB - clear - low retention - 1250 µl - bag	1000 pieces / bag
TF-R-S-1250	pipette tip - filter - ISOLAB - clear - low retention - 1250 µl - box - sterile	96 pieces / box
T-B-5000	pipette tip - ISOLAB - clear - 5000 µl	250 pieces / bag
T-R-S-5000	pipette tip - ISOLAB - clear - 5000 µl - box - sterile	50 pieces / box
T-B-10000	pipette tip - ISOLAB - clear - 10000 µl	200 pieces / bag
T-R-S-10000	pipette tip - ISOLAB - clear - 10000 µl - box - sterile	25 pieces / box

maximum sample recovery



Isolab tip after dispensing 100 µl sample.

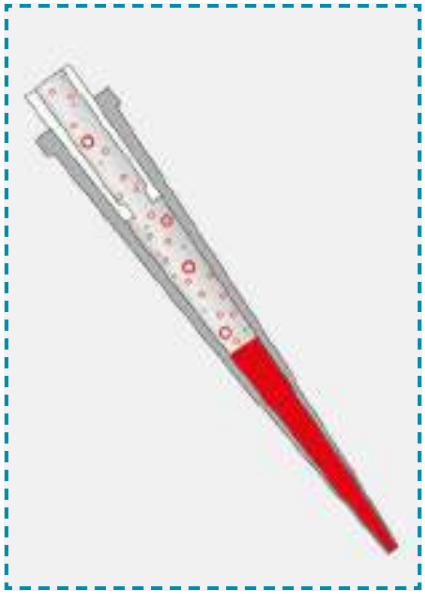
ISOLAB *tips are made from low liquid retention resins that provides superior sample recovery while increasing accuracy and reproducibility.*

- Allows for complete retrieval of precious samples.
- Saves costly reagents by reducing sample loss.
- Optimizes accuracy of the pipettor and also transfer of blood plasma.
- Avoids denaturation of nucleic acids and protein samples.



Other brand standart tip after dispensing 100 µl sample.

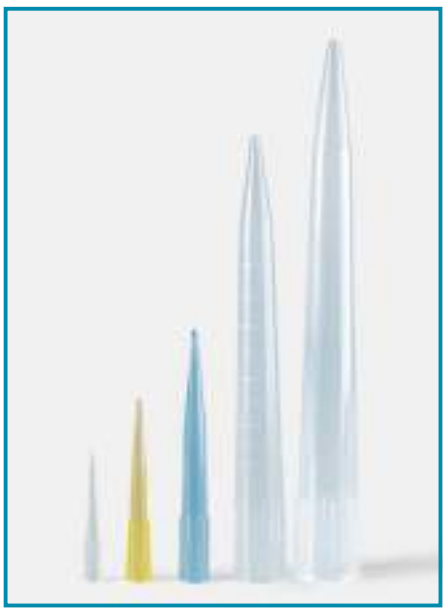
filter tips



ISOLAB *filter tips offer the ultimate in protection against contamination.*

- Filter barriers block aerosols by coalescing radioactive, chemical or biological contaminants before they can come in contact of pipettor shaft.
- Their usage is mostly essential in critical applications such as PCR, DNA sequencing and other techniques that involve the use of vaporous, biohazardous or corrosive material.
- Tip filters also act as a safety barrier against accidental over-pipetting of liquids without risk of sample lock-up.





PIPETTE TIPS - *"economical"*

- Manufactured from high quality pure polypropylene which is highly resistant to chemicals and thermal effects.
- Produced to match wide variety of pipettors for secure sealing and easy tip ejecting.
- Uniformity in size and shape allows perfect fitting with almost all micropipettes.
- Flashfree and uniform delivery orifice for consistent accuracy and reproducible sample delivery.
- Thin wall and small surface area at the tip minimize the possible tip retaining samples droplets.

catalogue number	capacity	color	pack quantity
005.01.001	10 µl	clear	1000 pcs
005.01.002	200 µl	yellow	1000 pcs
005.01.003	1000 µl	blue	500 pcs
005.01.004	5 ml	clear	250 pcs
005.01.005	10 ml	clear	100 pcs



STAND - *"micropipette" "carrousel"*

- Manufactured from polypropylene for using with most common micropipette brands.
- This space saving, robust stand can hold up to 6 pipettes comfortably.
- The round carrousel stand can rotate 360° around the axis enabling easy reach of any pipette.

catalogue number	base diameter	total height	pack quantity
006.11.005	160 mm	320 mm	1 piece



STAND - *"micropipette" "linear"*

- Manufactured from polypropylene for using with most common micropipette brands.
- Offers practical and easy direct access to micropipettes.
- This space saving, robust stand can hold up to 6 pipettes comfortably.



Linear micropipette stand can also hold multi-channel pipettes.

catalogue number	dimensions	pack quantity
006.11.006	143 x 290 x 290 mm	1 piece



STAND - *"micropipette" "adjustable"*

- Manufactured from acrylic with ergonomic angled body form with adjustable pipette holding option.
- Can be used with most pipette brands.
- Depending on the stand size enables easy holding and handling of 4 or 6 single channel pipettes.



The unique adjustable pipette holding design guarantees the use with different height pipettes.

catalogue number	dimensions	pack quantity
006.12.004	130 x 260 x 220 mm	1 piece
006.12.006	150 x 380 x 220 mm	1 piece



STAND - *"micropipette" - "with bin"*

- Manufactured from acrylic with a bin. The top support can hold 4 single channel pipettes.
- Generous opening of the bin provides easy and safe access to partitions.
- Cover is featured with easy opening sliding lid. Once opened, the lid stays open and enables easy filling and dispensing.
- Bin guarantees safe and clean storage of box pipette tips without been effected from dust, moisture and other environmental effects.
- Featured with non-skid silicone feet for safe and stable stand on the laboratory desks.

catalogue number	dimensions	pack quantity
006.05.001	200 x 178 x 173 mm	1 piece



Bin guarantees safe and clean storage of pipette tips without been effected from dust, moisture and other environmental effects.

Cover is featured with easy opening sliding lid. Once opened, the lid stays open and enables easy filling and dispensing.



STAND - *"micropipette" - "curved"*

- Manufactured from ABS and perfectly fits to research pipettes.
- Also fits a large variety of other pipette brands including multi-channel pipettes.
- Modern and ergonomic design that enables extremely easy storing and handling of both single and multi-channel pipettes.
- Due to the unique construction can be linked to each other to form a longer stand form.

catalogue number	*dimensions*	*pack quantity*
006.01.001	*100 x 62 x 230 mm*	*1 piece*



Due to the unique construction can be linked to each other to form a longer stand form.



Curved pipette stand designed for a safe and practical hold of multi-channel pipettes.



DISPENSER BOXES
"for pipette tips"

- Manufactured from crystal clear acrylic with excellent field of vision.
- Ideal supportive assistants for storing and dispensing pipette tips.
- Generous openings provide easy and safe access to partitions.
- Covers are featured with easy opening hinged lids. Once opened, the lid stands open and enables easy filling and dispensing.
- Boxes with their flip-top covers guarantee safe and clean storage of box contents without been effected from dust, moisture and other environmental effects.
- Featured with non-skid silicone feet for safe and stable stand on the laboratory desks.

Other technical specifications can be seen at catalogue page no 70.



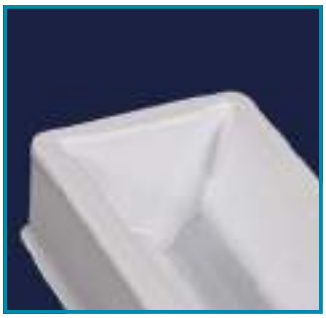
PIPETTING RESERVOIRS - *"non-sterile & sterile" - "disposable"*



- Manufactured from polystyrene featured with thick walls and crush-resistant corners as single, disposable use.
- Offers a clean, practical and economical alternative to all other re-usable pipetting reservoirs.
- Featured with a visible volume marking on the side wall.
- Large pour-back spouts at the corners guarantee pouring back the remaining liquid in to the original container without spillage.
- Easily stackable due to the tapered body form for reducing storage space.
- Liquid reservoirs do not stick to each other even stacked.
- Bottoms with a sloping "V" form and tapered in a narrow through guarantee maximum liquid recovery without any risks of loss.

- **Alternative 2 reservoirs:**
  - **non-sterile reservoirs**
  - **sterile reservoirs**

catalogue number	volume	product specifications	pack quantity
006.03.030	30 ml	non-sterile	100 pieces
006.13.030	30 ml	sterile	10 pieces
006.03.055	55 ml	non-sterile	100 pieces
006.13.055	55 ml	sterile	10 pieces
006.03.110	110 ml	non-sterile	100 pieces
006.13.110	110 ml	sterile	10 pieces



Pour-back spouts at the corners guarantee pouring back the remaining liquid into the original container without spillage.



Easily stackable due to the tapered body form for reducing storage space. Liquid reservoirs do not stick to each other even stacked.



Bottoms with a sloping "V" form and tapered in a narrow through guarantee maximum liquid recovery without any risks of loss.



Embossed volume graduations on wall side offers better liquid level viewing and replicable filling of the reservoir.



PIPETTING RESERVOIR - *"3 in 1"*

- Manufactured from polypropylene with 2 side options and 3 different compartment layout option.
- Ideal for use when the filling multitube blocks, microwell plates etc. since this two side reservoir is actually three reservoirs in one body.
- One side has a single compartment of 50 ml with 10, 25 and 40 ml visible volume markings at side wall.
- The reverse side has two individual compartments with 8 and 12 channels. Each individual channel has 5 ml volume capacity.

catalogue number	pack quantity
006.08.001	1 piece

ISOLAB Laborgeräte GmbH

DIN EN ISO CERTIFIED 9001







lab consumables & labware















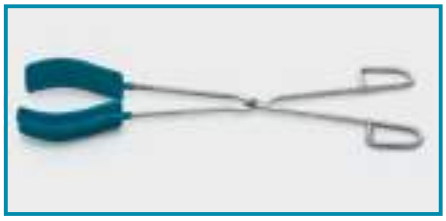
lab consumables & labware



BEAKERS - *"glass"* *"low form"*

- Manufactured from heat resistant, durable borosilicate glass according to ISO 3819 and DIN 12331 standards.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Volume graduations and inscriptions are printed with white enamel.

catalogue number	volume	pack quantity
025.01.005	5 ml	10 pieces
025.01.010	10 ml	10 pieces
025.01.025	25 ml	10 pieces
025.01.050	50 ml	10 pieces
025.01.100	100 ml	10 pieces
025.01.150	150 ml	10 pieces
025.01.250	250 ml	10 pieces
025.01.400	400 ml	10 pieces
025.01.600	600 ml	10 pieces
025.01.800	800 ml	10 pieces
025.01.901	1000 ml	10 pieces
025.01.902	2000 ml	6 pieces
025.01.905	5000 ml	1 piece
025.01.910	10000 ml	1 piece





Various beaker tongs can be selected from catalogue page no 83.



BEAKERS - *"P.P"* *"low form" - "embossed scale"*

- Manufactured from ultra clear polypropylene according to ISO 7056 standard with thick walls preventing breakage.
- Resistant to most acids, bases and many commonly used solvents.
- Functional large spout minimizes possible spills during liquid transfer.
- Volume graduations and inscriptions are made embossed scale form.

embossed scale	volume	pack quantity
026.01.025	25 ml	1 piece
026.01.050	50 ml	1 piece
026.01.100	100 ml	1 piece
026.01.250	250 ml	1 piece
026.01.500	500 ml	1 piece
026.01.901	1000 ml	1 piece
026.01.902	2000 ml	1 piece





BEAKERS - *"P.P"* *"low form" - "blue printed scale"*

- Manufactured from ultra clear polypropylene according to ISO 7056 standard with thick walls preventing breakage.
- Resistant to most acids, bases and many commonly used solvents.
- Functional large spout minimizes possible spills during liquid transfer.
- Volume graduations and inscriptions are printed with blue enamel.

blue printed scale	volume	pack quantity
026.03.025	25 ml	1 piece
026.03.050	50 ml	1 piece
026.03.100	100 ml	1 piece
026.03.250	250 ml	1 piece
026.03.500	500 ml	1 piece
026.03.901	1000 ml	1 piece
026.03.902	2000 ml	1 piece

BEAKERS - *"PTFE"*

- Manufactured from chemically inert PTFE with excellent chemical resistance, high mechanical strength and high temperature resistance between -200°C to +260°C.
- Flat base enables a flat contact with the surface for effective heat transfer.

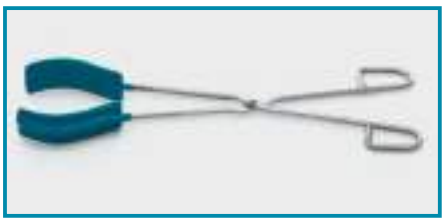
catalogue number	volume	pack quantity
025.03.050	50 ml	1 piece
025.03.100	100 ml	1 piece
025.03.250	250 ml	1 piece
025.03.500	500 ml	1 piece
025.03.901	1000 ml	1 piece



BEAKERS - "stainless steel"

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Robust seamless construction guarantees a long life cycle.
- Highly polished smooth interior enables much easier cleaning.

catalogue number	volume	pack quantity
025.04.100	100 ml	1 piece
025.04.250	250 ml	1 piece
025.04.500	500 ml	1 piece
025.04.901	1000 ml	1 piece





Various beaker tongs can be selected from catalogue page no 83.



BEAKERS WITH HANDLE "P.P" - "embossed scale"

- Manufactured from ultra clear polypropylene according to ISO 7056 standard with thick walls preventing breakage.
- Resistant to most acids, bases and many commonly used solvents.
- Functional large spout minimizes possible spills during liquid transfer.
- Volume graduations and inscriptions are made embossed scale form.
- Easily stackable due to the tapered body form for reducing storage space.

catalogue number	volume	pack quantity
026.02.250	250 ml	1 piece
026.02.500	500 ml	1 piece
026.02.901	1000 ml	1 piece
026.02.902	2000 ml	1 piece
026.02.903	3000 ml	1 piece



BEAKERS WITH HANDLE "P.P" - "blue printed scale"

- Manufactured from ultra clear polypropylene according to ISO 7056 standard with thick walls preventing breakage.
- Resistant to most acids, bases and many commonly used solvents.
- Functional large spout minimizes possible spills during liquid transfer.
- Volume graduations and inscriptions are printed with blue enamel.
- Easily stackable due to the tapered body form for reducing storage space.

catalogue number	volume	pack quantity
026.04.250	250 ml	1 piece
026.04.500	500 ml	1 piece
026.04.901	1000 ml	1 piece
026.04.902	2000 ml	1 piece
026.04.903	3000 ml	1 piece



BEAKERS WITH HANDLE "stainless steel"

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Robust seamless construction guarantees a long life cycle.
- Highly polished smooth interior enables much easier cleaning.
- Moulded graduations on the side wall offer easy volume identification.
- Functional large spout minimizes possible spills during liquid transfer.

catalogue number	volume	pack quantity
025.05.500	500 ml	1 piece
025.05.901	1000 ml	1 piece
025.05.902	2000 ml	1 piece



ERLENMEYERS - *"clear" "glass" - "narrow neck"*

- Manufactured from heat resistant, durable borosilicate glass according to ISO 1773 standard.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Volume graduations and inscriptions are printed with white enamel.

catalogue number	volume	pack quantity
027.01.025	25 ml	10 pieces
027.01.050	50 ml	10 pieces
027.01.100	100 ml	10 pieces
027.01.250	250 ml	10 pieces
027.01.300	300 ml	10 pieces
027.01.500	500 ml	10 pieces
027.01.901	1000 ml	10 pieces
027.01.902	2000 ml	6 pieces
027.01.903	3000 ml	1 piece
027.01.905	5000 ml	1 piece



ERLENMEYERS - *"clear" "glass" - "screw cap"*

- Manufactured from heat resistant, durable borosilicate glass with a leak-proof screw cap.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Supplied polypropylene screw cap with large ridges for increased grip.
- Unique internal flanged design of the caps guarantees leak-proof closure.
- Volume graduations and inscriptions are printed with white enamel.

catalogue number	neck size	volume	pack quantity
027.03.100	GL 32	100 ml	1 piece
027.03.250	GL 32	250 ml	1 piece
027.03.500	GL 32	500 ml	1 piece
027.03.901	GL 32	1000 ml	1 piece



ERLENMEYERS - *"clear" "polypropylene" - "screw cap"*

- Manufactured from clear polypropylene with a leak-proof screw cap.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Cap with large ridges for increased grip.
- Unique internal flanged design of the caps guarantees leak-proof closure.
- Volume graduations and inscriptions are printed with blue enamel.

catalogue number	neck size	volume	pack quantity
028.03.050	GL 40	50 ml	1 piece
028.03.100	GL 40	100 ml	1 piece
028.03.250	GL 52	250 ml	1 piece
028.03.500	GL 52	500 ml	1 piece
028.03.901	GL 52	1000 ml	1 piece



STABILISING RINGS - *"for erlenmeyers & flasks"*

- Manufactured from heavy alloy with different internal diameters for perfect fit to the necks of various volume erlenmeyers and flasks.
- Can fit neatly around the neck of erlenmeyers and other flasks preventing falling over or floating risks in water baths.
- Soft vinyl coated ring surface prevents scratching the glass surface during use.



catalogue number	internal diameter	external diameter	recommended for	pack quantity
027.11.048	48 mm	85 mm	100 ml - 500 ml	1 piece
027.11.056	56 mm	100 mm	250 ml - 1000 ml	1 piece
027.11.061	61 mm	115 mm	500 ml - 2000 ml	1 piece
027.11.074	74 mm	129 mm	1000 ml - 4000 ml	1 piece



FLASKS - *"clear"* *"glass" - "round bottom"*

- Manufactured from heat resistant, durable borosilicate glass according to ISO 1773 standard.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Inscriptions are printed with white enamel.

catalogue number	volume	pack quantity
029.02.050	50 ml	10 pieces
029.02.100	100 ml	10 pieces
029.02.250	250 ml	10 pieces
029.02.500	500 ml	10 pieces
029.02.901	1000 ml	10 pieces
029.02.902	2000 ml	6 pieces
029.02.904	4000 ml	1 piece
029.02.906	6000 ml	1 piece
029.02.910	10000 ml	1 piece



FLASKS - *"clear"* *"glass" - "flat bottom"*

- Manufactured from heat resistant, durable borosilicate glass according to ISO 1773 standard.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Inscriptions are printed with white enamel.

catalogue number	volume	pack quantity
029.01.050	50 ml	10 pieces
029.01.100	100 ml	10 pieces
029.01.250	250 ml	10 pieces
029.01.500	500 ml	10 pieces
029.01.901	1000 ml	10 pieces
029.01.902	2000 ml	6 pieces
029.01.904	4000 ml	1 piece
029.01.906	6000 ml	1 piece
029.01.910	10000 ml	1 piece



FLASKS STAND *"polypropylene"*

- Manufactured from best quality heat resistant polypropylene for holding round bottom flasks.
- Unique wall design offers an excellent support at every point of contact.
- Easily stackable due to the tapered body form for reducing storage space.

catalogue number	for flasks volume	pack quantity
029.14.902	100 - 2000 ml	1 piece



Circular aluminium covers for closing the necks can be seleceted from ***catalogue page no 118.***



FLASK STAND - *"cork"*

- Manufactured from best quality heat resistant, non-porous, natural cork for holding round bottom flasks.
- Unique wall design offers an excellent support at every point of contact.

catalogue number	recommended flask volume	pack quantity
029.04.001	50 - 100 ml	1 piece
029.04.002	250 - 500 ml	1 piece
029.04.003	1000 - 2000 ml	1 piece
029.04.004	3000 ml	1 piece
029.04.005	4000 ml	1 piece





BOTTLES - *"ISO" - "borosilicate glass"*

- Manufactured from heat resistant, durable borosilicate glass with thick walls and crush-resistant corners.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- These impact resistant, excellently thermal stable bottles are autoclavable at 121°C. Caps should not be closed during autoclaving.
- Angled neck form allows unrestricted liquid flow out without leaving any residue at the bottle neck.
- A large GL 45 bottle neck provides easy filling and pouring. Unique design pouring ring prevents drops and spillage.
- Caps are made from polypropylene with large ridges with increased grip. Cap inner design ensures hermetical and leak-proof closure.
- Volume graduations on wall side offers better liquid level viewing and reproducable filling of the bottle without the need of a cylinder.
- Volume graduations and inscriptions are printed with white enamel.
- **Alternative 2 bottles:** **Clear bottles** / **Amber bottles**



Cap with large ridges for increased grip with self sealing lock.



GL 45 neck provides easy fill & pour. Pouring ring prevents drops and liquid splash.

volume	*neck NS size*	*clear bottles*	*pack quantity*	*amber bottles*	*pack quantity*
100 ml	*GL 45*	*061.01.100*	*10 pieces*	*061.02.100*	*1 piece*
250 ml	*GL 45*	*061.01.250*	*10 pieces*	*061.02.250*	*1 piece*
500 ml	*GL 45*	*061.01.500*	*10 pieces*	*061.02.500*	*1 piece*
1000 ml	*GL 45*	*061.01.901*	*10 pieces*	*061.02.901*	*1 piece*
2000 ml	*GL 45*	*061.01.902*	*4 pieces*	*061.02.902*	*1 piece*
3000 ml	*GL 45*	*061.01.903*	*1 piece*	*061.02.903*	*1 piece*
5000 ml	*GL 45*	*061.01.905*	*1 piece*	*061.02.905*	*1 piece*
10000 ml	*GL 45*	*061.01.910*	*1 piece*	*061.02.910*	*1 piece*
20000 ml	*GL 45*	*061.01.920*	*1 piece*	*061.02.920*	*1 piece*



BOTTLES - *"ISO" - "neutral glass"*

- Manufactured from neutral glass with thick walls and crush-resistant corners.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Angled neck form allows unrestricted liquid flow out without leaving any residue at the bottle neck.
- A large GL 45 bottle neck provides easy filling and pouring. Unique design pouring ring prevents drops and spillage.
- Caps are made from polypropylene with large ridges with increased grip. Cap inner design ensures hermetical and leak-proof closure.
- Volume graduations on wall side offer better liquid level viewing and reproducible filling of the bottle without the need of a measuring cylinder.
- Volume graduations and inscriptions are printed with white enamel.



Color coded caps enable fast, easy and practical identification of bottle content. ***Color coded caps can be selected from page no 114.***

catalogue number	*volume*	*pack quantity*
061.31.100	*100 ml*	*10 pieces*
061.31.250	*250 ml*	*10 pieces*
061.31.500	*500 ml*	*10 pieces*
061.31.901	*1000 ml*	*10 pieces*

BOTTLES - *"glass" - "wide neck"*

- Manufactured from neutral glass with thick walls and crush-resistant corners.
- Ideal for safe storage and transportation of liquids and powders.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- A large bottle neck provides easy filling and pouring. Unique design of the neck prevents drops and spillage.
- Caps are made from polypropylene with large ridges for fast closure.
- Cap inner design with polypropylene washer ensures hermetical and leak-proof closure.
- **Alternative 2 bottles:**
  - **Clear bottles**
  - **Amber bottles**
- Amber bottles prevents UV light penetration into the bottle and protects sensitive samples.



Supplied with a leak-proof polypropylene cap with an PTFE protective insert.

clear bottles	amber bottles	volume	neck size	bottle diameter	bottle height	pack quantity
061.10.050	061.11.050	50 ml	32 mm	44 mm	75 mm	10 pieces
061.10.100	061.11.100	100 ml	40 mm	50 mm	93 mm	10 pieces
061.10.250	061.11.250	250 ml	55 mm	70 mm	113 mm	10 pieces
061.10.500	061.11.500	500 ml	55 mm	85 mm	154 mm	10 pieces
061.10.901	061.11.901	1000 ml	68 mm	104 mm	181 mm	10 pieces

COATED BOTTLES - *"glass" - "clear & amber"*

- When handling dangerous and/or valuable solutions coated bottles are highly recommended.
- They are featured with identical technical specifications of clear and amber bottles with codes 061.01.xxx and 061.02.xxx.
- Bodies of these bottles are coated with a special formulated coating which reduces the impacts and also minimizes the possible risks in case of breakage.
- Coating covers the body like a protective glove and holds the broken parts unscattered.
- The coating also holds the broken glass together so that the leakage will be minimum. In most of the cases this coating keeps the solutions still inside the flask body without leakage.
- The coating is highly transparent and can resist up to 135°C with maximum period of 30 minutes. These bottles can be cleaned at maximum 95°C and can be reapetably autoclaved at 121°C.
- Coated bottles should not be exposed directly to open flame.



volume	neck NS size	coated clear bottles	coated amber bottles	pack quantity
100 ml	GL 45	061.01.100C	061.02.100C	1 piece
250 ml	GL 45	061.01.250C	061.02.250C	1 piece
500 ml	GL 45	061.01.500C	061.02.500C	1 piece
1000 ml	GL 45	061.01.901C	061.02.901C	1 piece
2000 ml	GL 45	061.01.902C	061.02.902C	1 piece

lab consumables & labware



Sterile bottles are manufactured at aseptically sterile production halls and then sent to gamma sterilisation.

Such informations as lot number, production and expiry dates etc. are indicated on the packing.

BOTTLES - *"ISO" - "polypropylene"*

- Manufactured from special formulated polypropylene with thick walls and crush-resistant corners.
- Featured with high transperancy and best chemical heat tolerance.
- These impact resistant, excellently thermal stable bottles are autoclavable at 121°C. Caps should not be closed during autoclaving.
- Angled neck form allows unrestricted liquid flow out without leaving any residue at the bottle neck.
- A large GL 45 bottle neck provides easy filling and pouring. Unique design of the neck with moulded pouring ring prevents drops and spillage.
- Cap with large ridges with increased grip featured with self lock and internal security ring. Cap inner design ensures hermetical and leak-proof closure.
- Embossed volume graduations on wall side offers better liquid level viewing and reproducable filling of the bottle without the need of a measuring cylinder.
- **Alternative 2 bottles:**
  - **Clear bottles**
  - **Amber bottles**
- Clear bottles are manufactured from very clear polypropylene resulting with high transperancy and for better view of the bottle content.
- Amber bottles are manufactured from special formulated polypropylene preventing UV light penetration into the flask yet still offering high transperancy.
- **Alternative 2 products:**
  - **Non-sterile bottles**
  - **Sterile bottles**
- Sterile bottles are manufactured at aseptically sterile production halls and then send to gamma sterilisation. Such informations as lot number, production and expiry dates etc are indicated on the packing.

clear bottles non-sterile	clear bottles sterile	amber bottles non-sterile	amber bottles sterile	neck size	volume	pack quantity
061.15.100	061.16.100	061.17.100	061.18.100	GL 45	100 ml	100 pieces
061.15.250	061.16.250	061.17.250	061.18.250	GL 45	250 ml	100 pieces
061.15.500	061.16.500	061.17.500	061.18.500	GL 45	500 ml	100 pieces
061.15.901	061.16.901	061.17.901	061.18.901	GL 45	1000 ml	50 pieces
061.15.902	061.16.902	061.17.902	061.18.902	GL 45	2000 ml	50 pieces



Unique design of the cap with intended top plate guarantees tight and leakproof closure.



Integral security ring of the cap ensures safe and untouched protection of the bottle content.



Caps are made from robust and thick polyethylene with large ridges for increased grip.



Unique neck design with moulded pouring ring prevents drops and liquid splash.

BOTTLES - "square" - "wide neck" - "polyethylene"



- Manufactured from polyethylene with thick walls and crush-resistant corners.
- A large bottle neck provides easy filling and pouring.
- Cap offers increased grip. Featured with an insert plug for hermetical and leak-proof closure.
- Bottle neck and the cap carry holes for enabling the insertion of the security seal wire.
- The space between the cap and the insert plug can be used for securing confidential notes.
- Embossed volume graduations on wall side offers better liquid level viewing and reproducable filling of the bottle without the need of a measuring cylinder.
- **Alternative 2 bottles:** **Clear bottles** **Amber bottles**
- Clear bottles are manufactured from very clear P.E resulting with high transperancy and for better view of the bottle content.
- Amber bottles are manufactured from special formulated P.E preventing UV light penetration into the flask yet still offering high transperancy.

clear bottles	amber bottles	bottle volume	dimensions	pack quantity
061.07.050	061.08.050	50 ml	37x39x73 mm	50 pieces
061.07.100	061.08.100	100 ml	50x45x90 mm	50 pieces
061.07.250	061.08.250	250 ml	64x57x112 mm	50 pieces
061.07.500	061.08.500	500 ml	85x72x140 mm	50 pieces
061.07.901	061.08.901	1000 ml	104x82x173 mm	50 pieces
061.07.902	061.08.902	2000 ml	134x100x210 mm	50 pieces



The space between cap and insert plug can be used for private and confidential notes.

SECURITY SEALS

- Security seal is used to ensure the safety locking and durability of the product inside the bottles.
- 4 different colors are used to identify among the seals with identification numbers printed on the seal plate.



061.09.0B1 **061.09.0R1** **061.09.0Y1** **061.09.0G1**

catalogue number	color	pack quantity
061.09.0B1	blue	10 pieces
061.09.0R1	red	10 pieces
061.09.0Y1	yellow	10 pieces
061.09.0G1	green	10 pieces



Insert the seal wire through the holes of both the cap and bottle itself. Then insert the wire into the hole of the seal as shown.



Last step is to wind the seal key clockwise until the seal wire gets tight enough to provide optimum security lock.

SECURITY SEAL CUTTER

- Security seal cutter is a perfect tool to cut security seal wires easily.

catalogue number	pack quantity
061.20.001	1 piece



BOTTLES - *"aluminium"*



- These odour-natural, impervious to light and rust proof bottles are manufactured from aluminium.
- Ideal for storing and transporting of samples and products which have to be stored totally unhaltered.
- Bottle neck provides easy filling and pouring. Unique design of the neck prevents drops and spillage.
- Caps with large ridges with increased grip featured with self lock and internal security ring. Cap inner design ensures hermetical and leak-proof closure.
- These bottles are supplied with an insert plug for hermetical and leak-proof closure.
- Round neck form allows unrestricted liquid flow out without leaving any residue at the bottle neck.
- 6 lt, 12 lt and 31 lt aluminium bottles are featured with a sturdy handle for easy carrying.

catalogue number	volume	neck size	bottle diameter	bottle height	pack quantity
061.14.025	25 ml	GL 18	40 mm	80 mm	10 pieces
061.14.060	60 ml	GL 32	45 mm	90 mm	10 pieces
061.14.120	120 ml	GL 32	50 mm	120 mm	10 pieces
061.14.300	300 ml	GL 32	55 mm	165 mm	10 pieces
061.14.600	600 ml	GL 45	75 mm	195 mm	10 pieces
061.14.901	1200 ml	GL 45	90 mm	225 mm	10 pieces
061.14.906	6 L	GL 60	173 mm	335 mm	1 piece
061.14.912	12 L	GL 50	215 mm	430 mm	1 piece
061.14.931	31 L	GL 50	310 mm	500 mm	1 piece



A large bottle neck provides easy filling and pouring. Unique design of the neck prevents drops and spillage.



Bottles are supplied with an insert plug for hermetical leak-proof closure.



6 lt / 12 lt and 31 lt aluminium bottles are featured with a sturdy handle for easy carrying.



Caps with large ridges with increased grip featured with self lock and internal security ring. Cap inner design ensures hermetical and leak-proof closure.

BOTTLES - *"for water sampling" - "polypropylene"*



- Manufactured from polypropylene for taking, transporting and storing of water samples for microbiological analysis. They can be used for all analysis where a sterile sample is required.
- Bottles are manufactured at aseptically sterile production halls and then sent to gamma sterilisation. Such informations as lot number, production and expiry dates etc are indicated on the packing.
- Square bottle form offers easy handling and optimum space saving solutions. GL 50 wide bottle neck provides easy filling and pouring.
- Cap with large ridges with increased grip featured with self lock and internal security ring. Cap inner design ensures hermetical and leak-proof closure. Caps are made of polyethylene.
- Embossed volume graduations on wall side offer better liquid level viewing.
- **Alternative 2 bottles:**
  - **Without sodium thiosulfate**
  - **With sodium thiosulfate**
- Bottles with sodium thiosulfate (20 mg/lt - according to ISO/ FIS 19458/2006 standard) are ideal for water analysis where chlorine may modify the composition of the sample.
- **Alternative 2 packing:**
  - **"Bulk packed", where bottles are packed as a group in a box.**
  - **"Single packed", where bottles are first individually packed in P.E bags and then repacked in a box.**
- **Alternative 2 colors:**
  - **Clear bottles**
  - **Amber bottles**



Self sealing lock caps with integral security ring. Cap inner design ensures hermetical closure and guarantees an excellent leak proof closure.



Each bottle is labelled specifying sample and source descriptions, code and lot numbers, expiry date and other informations.



Cap with large ridges with increased grip featured with self lock and internal security ring. Cap inner design ensures hermetical and leak-proof closure.



- Clear bottles are manufactured from very clear P.P resulting with high transperancy and for better view of the bottle content.
- Amber bottles are manufactured from special formulated P.P preventing UV light penetration into the flask yet still offering high transperancy.

"Single packed", where bottles are first individually packed in P.E bags and then repacked in a box.

bulk packed bottles

bottle volume	bottle dimensions	clear bottles W/O sodium thiosulfate	clear bottles with sodium thiosulfate	amber bottles W/O sodium thiosulfate	amber bottles with sodium thiosulfate	packing specifications
125 ml	57 x 57 x 90	061.21.125	061.23.125	061.22.125	061.24.125	180 pcs in box
250 ml	60 x 60 x 115	061.21.250	061.23.250	061.22.250	061.24.250	108 pcs in box
500 ml	70 x 70 x 145	061.21.500	061.23.500	061.22.500	061.24.500	84 pcs in box
1000 ml	90 x 90 x 175	061.21.901	061.23.901	061.22.901	061.24.901	30 pcs in box

single packed bottles

bottle volume	bottle dimensions	clear bottles W/O sodium thiosulfate	clear bottles with sodium thiosulfate	amber bottles W/O sodium thiosulfate	amber bottles with sodium thiosulfate	packing specifications
125 ml	57 x 57 x 90	061.25.125	061.27.125	061.26.125	061.28.125	130 pcs in box
250 ml	60x 60 x 115	061.25.250	061.27.250	061.26.250	061.28.250	72 pcs in box
500 ml	70 x 70 x 145	061.25.500	061.27.500	061.26.500	061.28.500	42 pcs in box
1000 ml	90 x 90 x 175	061.25.901	061.27.901	061.26.901	061.28.901	22 pcs in box



BOTTLES - *"glass" - "narrow & wide neck"*

- Manufactured from neutral glass with thick walls and amber color.
- Amber bottles prevents UV light penetration into the bottle and protects sensitive samples.
- Specially recommended for safe storage and transportation of liquids, powders and pastes.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Bottle necks provide easy filling and pouring of samples.
- Caps are made from P.E with large ridges for fast closure.
- Cap inner design with inverted top plate ensures hermetical and leak-proof closure. GL 45 caps for liquid bottles are featured with a PTFE protective insert.
- Featured with self lock and internal security ring for safe protection of the bottle content.

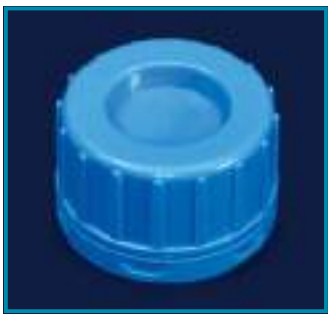
item no	catalogue number	volume	recommended for	neck size	bottle Ø x H	cap specs	pack quantity
1	061.47.050	50 ml	for powders	GL 40	50x78 mm	w/o PTFE insert	10 pieces
2	061.47.125	125 ml	for powders	GL 40	55x109 mm	w/o PTFE insert	10 pieces
3	061.47.250	250 ml	for powders	GL 60	69x130 mm	w/o PTFE insert	10 pieces
4	061.47.500	500 ml	for powders	GL 60	82x172 mm	w/o PTFE insert	10 pieces
5	061.47.901	1000 ml	for powders	GL 60	100x210 mm	w/o PTFE insert	10 pieces
6	061.46.901	1000 ml	for liquids	GL 45	100x222 mm	with PTFE insert	10 pieces
7	061.46.902	2500 ml	for liquids	GL 45	140x300 mm	with PTFE insert	10 pieces



Unique design of the cap with intended top plate guarantees tight and leakproof closure.



Integral security ring of the cap ensures safe and untouched protection of the bottle content.



Caps are made from robust and thick polyethylene with large ridges for increased grip.



GL 45 caps for liquid bottles are featured with a PTFE protective insert for additional safety.

BOTTLES - *"polyethylene" - "narrow & wide neck"*

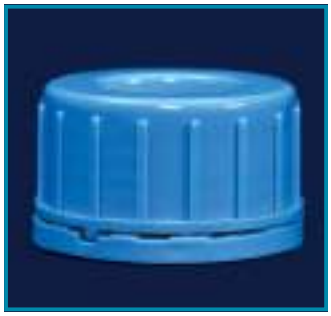


- Manufactured from special formulated polyethylene with thick walls and crush-resistant corners.
- Resistant to most acids, bases, and many commonly used solvents.
- Guarantees high temperature resistance between -40°C to +80°C.
- Specially recommended for safe storage and transportation of liquids, powders and pastes.
- Bottle necks provide easy filling and pouring. Unique design of the neck with moulded pouring ring prevents drops and spillage.
- Caps are made from P.E with large ridges for fast closure.
- Cap inner design with inverted top plate ensures hermetical and leak-proof closure.
- GL 45 caps for liquid bottles are featured with a PTFE protective insert.
- Featured with self lock and internal security ring for safe protection of the bottle content.

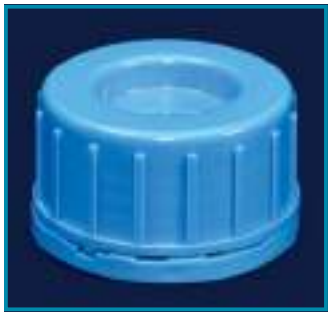
item no	catalogue number	volume	recommended for	neck size	bottle W x L x H	cap specs	pack quantity
1	061.42.125	125 ml	for powders	GL 45	60x60x96 mm	w/o PTFE insert	50 pieces
2	061.42.250	250 ml	for powders	GL 63	86x86x145 mm	w/o PTFE insert	50 pieces
3	061.42.500	500 ml	for powders	GL 63	90x90x175 mm	w/o PTFE insert	50 pieces
4	061.42.901	1000 ml	for powders	GL 63	96x96x207 mm	w/o PTFE insert	50 pieces
5	061.42.911	1500 ml	for powders	GL 63	116x116x246 mm	w/o PTFE insert	50 pieces
6	061.42.902	2500 ml	for powders	GL 80	127x127x272 mm	w/o PTFE insert	25 pieces
7	061.41.500	500 ml	for liquids	GL 45	90x90x163 mm	with PTFE insert	50 pieces
8	061.41.901	1000 ml	for liquids	GL 45	95x95x207 mm	with PTFE insert	50 pieces
9	061.41.902	2500 ml	for liquids	GL 45	127x127x310 mm	with PTFE insert	25 pieces
10	061.41.905	5000 ml	for liquids	GL 45	145x145x386 mm	with PTFE insert	25 pieces



Unique design of the cap with intended top plate guarantees tight and leakproof closure.



Integral security ring of the cap ensures safe and untouched protection of the bottle content.



Caps are made from robust and thick polyethylene with large ridges for increased grip.



GL 45 caps for liquid bottles are featured with a PTFE protective insert for additional safety.



JARS - "glass" - "wide neck"

- Manufactured from neutral glass with thick walls and crush-resistant corners.
- Ideal for safe storage and transportation of liquids and powders.
- Caps are made from enamaled steel with large ridges with increased grip.
- Cap inner design ensures hermetical and leak-proof closure.

catalogue number	volume	neck size	jar diameter	jar height	pack quantity
061.29.040	40 ml	40 mm	43 mm	50 mm	10 pieces
061.29.105	105 ml	45 mm	49 mm	84 mm	10 pieces
061.29.370	370 ml	62 mm	72 mm	121 mm	10 pieces
061.29.720	720 ml	80 mm	90 mm	141 mm	10 pieces
061.29.901	1000 ml	82 mm	95 mm	180 mm	10 pieces



JARS - "polypropylene" - "wide neck"

- Manufactured from special formulated polypropylene with thick walls and crush-resistant corners.
- Resistant to most acids , bases, and many commonly used solvents. Guarantees high temperature resistance between -20°C to +121°C.
- Ideal for safe storage and transportation of liquids and powders.
- Caps are made from polypropylene with large ridges with increased grip. Cap inner design ensures hermetical and leak-proof closure.

catalogue number	volume	neck size	jar diameter	jar height	pack quantity
061.13.001	250 ml	85 mm	90 mm	62 mm	1 piece
061.13.002	410 ml	85 mm	90 mm	102 mm	1 piece
061.13.004	1270 ml	135 mm	140 mm	110 mm	1 piece
061.13.006	1420 ml	135 mm	140 mm	135 mm	1 piece
061.13.008	1800 ml	135 mm	140 mm	160 mm	1 piece



BOTTLES - "PET" - "sterile"

- Manufactured from special formulated PET with thick walls and crush-resistant corners. Specially recommended for safe storage and transportation of cell culture media.
- These bottles are manufactured at aseptically sterile production halls and then send to gamma sterilisation. They can be used for all analysis where a sterile sample is required.
- The bottle neck provides easy filling and pouring. Their square shape offers maximum space saving. Caps are made from polyethylene with large ridges for fast closure.
- Embossed volume graduations on wall side offer better liquid level viewing.

catalogue number	volume	neck size	bottle WxDxH	pack quantity
061.19.125	125 ml	32 mm	53x53x105 mm	24 pieces
061.19.250	250 ml	32 mm	59x59x147 mm	30 pieces
061.19.500	500 ml	32 mm	77x77x174 mm	24 pieces
061.19.901	1000 ml	32 mm	93x93x214 mm	12 pieces

CONTAINER CUP - *"screw cap"*



- Manufactured from clear polypropylene with 100 ml effective volume.
- The screw caps are with large ridges for increased grip ensures hermetical and leak-proof closure.
- Moulded graduations on the side wall offer easy volume identification.
- Frosted marking area on side wall enables easy marking and labelling.
- **Alternative 2 cups:** **non-sterile** / **sterile**

catalogue number	product description	pack quantity
087.01.001	non-sterile cups	500 pieces
087.01.002	sterile cups	250 pieces



CONTAINER CUP - *"press-on cap"*



- Manufactured from clear polypropylene with 40 ml effective volume.
- The press-on cap ensures hermetical and leak-proof closure. Scale on side wall for easy volume identification.
- Frosted marking area on side wall enables easy marking and labelling.
- **Alternative 2 cups:** **non-sterile** / **sterile**

catalogue number	product description	pack quantity
087.02.001	non-sterile cups	1000 pieces
087.02.002	sterile cups	500 pieces



CONTAINER CUP - *"screw cap"*



- Manufactured from clear polystyrene with 20 ml effective volume.
- Ideal for safe storage and transportation of solids, liquids and powders.
- The screw caps are with large ridges for increased grip ensures hermetical and leak-proof closure.
- Sticker marking area on side wall enables easy marking and labelling.
- **Alternative 2 cups:** **non-sterile** / **sterile**

catalogue number	product description	pack quantity
087.03.001	non-sterile cups	400 pieces
087.03.002	sterile cups	400 pieces





JERRYCANS - *"polyethylene"*

- Manufactured from UV stabilised, thick polyethylene with sturdy carrying handles.
- Ideal for safe storage, transportation and dispensing of liquids.
- Featured with a wide neck for easy filling and draining.
- Caps are made from polypropylene with large ridges with increased grip.
- Cap featured with self-locking internal security ring ensures hermetical and leak-proof closure.
- 20 and 30 lt jerrycans are featured with a leak-proof stopcock which prevents vacuum formation during draining.



Caps are made from polypropylene with large ridges for increased grip.

catalogue number	volume	pack quantity
062.21.902	2 L	1 piece
062.21.903	3 L	1 piece
062.21.905	5 L	1 piece
062.21.910	10 L	1 piece
062.21.920	20 L	1 piece
062.21.930	30 L	1 piece



JERRYCANS - *"steel"*

- These explotions proof jerrycans are manufactured from thick steel.
- Ideal for safe storage, transportation and dispensing of explosive and flammable liquids.
- Featured with a wide neck for easy filling and draining.
- Self-locking screw caps ensure hermetical and leak-proof closure.
- Supplied with delivery tube for safe transfer of liquids.



catalogue number	volume	pack quantity
062.22.905	5 L	1 piece
062.22.910	10 L	1 piece
062.22.920	20 L	1 piece



BOTTLES - *"aspirator" - "with stopcock" - "glass"*

- Manufactured from heat resistant, durable borosilicate glass with thick wall, heavy base and reinforced rim.
- Ideal for safe storage, transportation and dispensing of liquids.
- Featured with a wide neck for easy filling and draining.
- Caps are made from polypropylene with large ridges with increased grip.
- Cap inner design ensures hermetical and leak-proof closure.
- Featured with a leak-proof stopcock which prevents vacuum formation during draining.



Caps are made from polypropylene with large ridges with increased grip.



Featured with a leak-proof stopcock which prevents vacuum formation during draining.

catalogue number	volume	pack quantity
062.27.905	5 L	1 piece
062.27.910	10 L	1 piece
062.27.920	20 L	1 piece



CARBOYS - *"aspirator bottles" - "with stopcock" - "polyethylene"*

- Manufactured from UV stabilised, thick polyethylene with sturdy carrying handles.
- Ideal for safe storage, transportation and dispensing of liquids.
- Featured with a wide neck for easy filling and draining.
- Caps are made from polypropylene with large ridges with increased grip. Cap inner design ensures hermetical and leak-proof closure.
- Featured with a leak-proof stopcock which prevents vacuum formation.



Caps are made from polypropylene with large ridges with increased grip.



Featured with a leak-proof stopcock which prevents vacuum formation during draining.

catalogue number	volume	carboy Ø	carboy H	cap Ø	pack quantity
062.28.905	5 L	170 mm	345 mm	55 mm	1 piece
062.28.910	10 L	200 mm	455 mm	55 mm	1 piece
062.28.920	20 L	265 mm	550 mm	55 mm	1 piece



CARBOYS - *"with & without stopcock" - "polypropylene"*

- Manufactured from UV stabilised, thick polypropylene with sturdy carrying handles
- Ideal for safe storage, transportation and dispensing of lab water and reagents.
- Space saving rectangular design offers multiple advantages.
- Featured with a 80 mm wide neck for easy filling and draining and cleaning.
- Caps are made from P.E with large ridges with increased grip for better closure.
- Cap is featured with self-locking internal security ring ensures hermetical and leak-proof closure.
  - **without stopcock**
- **Alternative 2 carboys:**
  - **with stopcock**
- Featured with a leak-proof stopcock which prevents vacuum formation during draining.



Featured with a 80 mm wide neck for easy filling and draining and cleaning.

Plated steel handles provides easy and safe hangling of the carboys.



Caps are made from polyethylene with large ridges for increased grip.

Cap is featured with self-locking internal security ring ensures hermetical and leak-proof closure.



Featured with a leak-proof stopcock which prevents vacuum formation during draining.

catalogue number	volume	specification	carboy W (mm)	carboy D (mm)	carboy H (mm)	cap Ø	pack quantity
062.25.910	10 L	without stopcock	150 mm	210 mm	355 mm	GL 80	1 piece
062.25.911	10 L	with stopcock	150 mm	210 mm	355 mm	GL 80	1 piece
062.25.920	20 L	without stopcock	220 mm	310 mm	390 mm	GL 80	1 piece
062.25.921	20 L	with stopcock	220 mm	310 mm	390 mm	GL 80	1 piece



CARBOY STANDS

- Manufactured from epoxy coated thick and durable steel wire. They perfectly fit to the base of the related size carboy.
- Offers practical use of the carboy and also guarantees problem free and easy drainage of the liquid.

cat. number	for	cat. number	for
062.25.915	062.25.911	062.28.915	062.28.910
062.25.925	062.25.921	062.28.925	062.28.920





WASH BOTTLES - "narrow neck" - "clear"

- Manufactured from highly translucent and semi-rigid polyethylene with thick walls and crush-resistant corners.
- Round bottle form allows un-restricted liquid flow-out without leaving any residue at the bottle neck.
- Flexible delivery tube guarantees a fine and straight flow with an application of a slight pressure on the body.
- "Goose neck" design of the delivery tube guarantees easy and precise reaching to the flask corners.
- Dispensing tip provides extra fine stream.
- The tip of the delivery tube can be cut to increase the flow rate.



Dispensing tip provides extra fine stream. The tip of the delivery tube can be cut inorder to increase the liquid flow rate.

catalogue number	volume	pack quantity
062.05.100	100 ml	1 piece
062.05.250	250 ml	1 piece
062.05.500	500 ml	1 piece
062.05.901	1000 ml	1 piece



WASH BOTTLES - "narrow neck" - "multi-color bottle & cap"

- Manufactured from highly translucent and semi-rigid polyethylene with thick walls and crush-resistant corners.
- Round bottle form allows unrestricted liquid flow out without leaving any residue at the bottle neck.
- Flexible delivery tube guarantees a fine and straight flow with an application of a slight pressure on the body.
- "Goose neck" design of the delivery tube guarantees easy and precise reaching to the flask corners.
- The tip of the delivery tube can be cut to increase the flow rate.
- Colored body and caps enable fast, easy and practical identification of bottle content.



Colored body and caps enables fast, easy and practical identification of bottle content.

catalogue number	volume	bottle color	pack quantity
062.05.05R	500 ml	red	1 piece
062.05.05Y	500 ml	yellow	1 piece
062.05.05G	500 ml	green	1 piece
062.05.05B	500 ml	blue	1 piece



WASH BOTTLES - "wide neck" - "multi-color cap"

- Manufactured from highly translucent and semi-rigid polyethylene with thick walls and crush-resistant corners.
- Round bottle form allows unrestricted liquid flow out without leaving any residue at the bottle neck.
- Angled delivery tube guarantees a fine and straight flow with an application of a slight pressure on the body.
- Dispensing tube design offers optimum backflow and turbulance free liquid transfer.
- Caps acupled with delivery tube are made from polyethylene with large ridges with increased grip. Cap inner design ensures hermetical and leak-proof closure.



Colored caps enables easy identification of the bottle content. Ribbed cap provides perfect grib.

catalogue number	volume	cap color	pack quantity
062.09.05R	500 ml	red	1 piece
062.09.05Y	500 ml	yellow	1 piece
062.09.05G	500 ml	green	1 piece
062.09.05B	500 ml	blue	1 piece

WASH BOTTLES - *"wide neck" - "multilingual"*



- Manufactured from highly translucent and semi-rigid polyethylene with walls and crush-resistant corners according to European safety regulations (EC)1272/2008(GHS).
- Round neck form allows unrestricted liquid flow out without leaving any residue at the bottle neck.
- Angled delivery tube guarantees a fine and straight flow with an application of a slight pressure on the body.
- Dispensing tube design offers optimum backflow and turbulance free liquid transfer.
- Caps acupled with delivery tube are made from polyethylene with large ridges with increased grip. Cap inner design ensures hermetical and leak-proof closure.
- Chemical names, formulas, CAS numbers and other key safety informations are printed on the body surface in 4 (English / French / German and Spanish) languages.
- Warning words such as "flammable" or "danger" etc. are to identify the severity of the hazardous liquids and globally harmonised system with new designed pictograms reflecting the latest changes in regulations are also printed on the body.



Chemical names, formulas, CAS numbers and pictograms showing the latest changes in regulations are printed on the body surface.



Warning words as "flammable", to identify the the hazardous liquids, "how-to-use" instructions in four languages are printed on the body.



Color coded cap and bottle offers easy recognition of the wash bottle content.

catalogue number	wash bottle label name	bottle material	bottle volume	cap color	pack quantity
062.50.500	acetone	P.P	500 ml	red	1 piece
062.51.500	water	P.E	500 ml	blue	1 piece
062.51.501	distilled water	P.E	500 ml	blue	1 piece
062.51.502	deionised water	P.E	500 ml	blue	1 piece
062.52.500	ethanol	P.E	500 ml	green	1 piece
062.53.500	ethyl acetate	P.E	500 ml	white	1 piece
062.54.500	iso-propanol	P.E	500 ml	yellow	1 piece
062.55.500	methanol	P.E	500 ml	orange	1 piece
062.56.500	methylethylketone	P.P	500 ml	brown	1 piece
062.57.500	tetrahydrofuran	P.P	500 ml	black	1 piece
062.58.500	toluene	P.E	500 ml	torquise	1 piece



WASH BOTTLES - *"integral"*

- Manufactured from highly translucent and semi-rigid polyethylene with thick walls and crush-resistant corners. Ergonomic shape offers easy grip and easy squeeze during use.
- Integral moulded delivery tube delivers the liquid in the bottle untill the last drop. Delivery tube guarantees a fine and straight flow with an application of a slight pressure on the body.
- The tip of the delivery tube can be cut to increase the flow rate. A closure cap attached to the delivery tube prevents contamination when the wash bottle is not used.

catalogue number	volume	pack quantity
062.08.250	250 ml	1 piece
062.08.500	500 ml	1 piece

Dispensing tip provides extra fine stream. The tip of the delivery tube can be cut in order to increase the liquid flow rate.





BOTTLES - *"dropping"*

- Manufactured from transparent polyethylene with a dropping cap. Cap can be easily dismantled for cleaning.
- Dispensing tip provides similar size drops at all times. Supplied with a push-to-open cap for safety reasons.

catalogue number	volume	pack quantity
062.10.010	10 ml	10 pieces
062.10.015	15 ml	10 pieces
062.10.020	20 ml	10 pieces
062.10.030	30 ml	10 pieces

Dispensing tip provides always similar size drops at all times.





BOTTLES - *"spray"*

- Manufactured from transparent PET with a spray head.
- All media contacting parts perfectly resist to most solvents and chemicals.
- Liquids can be finely vaporised with the pull of the hand pump trigger.
- Feature with a safety lock at the trigger which prevents accidental use.

catalogue number	volume	pack quantity
062.11.250	250 ml	1 piece
062.11.500	500 ml	1 piece

Extremely fine and homogenious vaporisation is guaranteed with the pull of the trigger.



BOTTLES - *"dropping"*

- Manufactured from heat resistant, durable borosilicate glass with a glass dropping cap. Cap can be easily dismantled for cleaning.
- Dispensing tip provides similar size drops at all times.
- **Alternative 2 bottles:** **Clear bottles** **Amber bottles**
- Amber bottles prevent UV lights to penetrate into the bottle.



Dispensing tip provides always similar size drops at all times.



clear bottles	amber bottles	volume	pack quantity
062.02.100	062.03.100	100 ml	1 piece

BOTTLES - *"dropping"*

- Manufactured from heat resistant, durable borosilicate glass with a rubber dropping cap. Cap can be easily dismantled for cleaning.
- Dispensing tip provides similar size drops at all times.
- **Alternative 2 bottles:** **Clear bottles** **Amber bottles**
- Amber bottles prevent UV lights to penetrate into the bottle.



Dispensing tip provides always similar size drops at all times.



clear bottles	amber bottles	volume	pack quantity
062.12.050	062.13.050	50 ml	1 piece
062.12.100	062.13.100	100 ml	1 piece

BOTTLES - *"dropping"*

- Manufactured from transparent polyethylene with a dropping cap. Cap can be easily dismantled for cleaning.
- Dispensing tip provides similar size drops at all times. The dispensing tip can be cut to increase the drop volume
- **Alternative 2 bottles:** **Clear bottles** **Amber bottles**
- Amber bottles prevent UV lights to penetrate into the bottle.



Dispensing tip provides always similar size drops at all times.



clear bottles	amber bottles	volume	pack quantity
062.04.100	062.04.101	100 ml	1 piece



BASKET - *"for bottles"*

- Manufactured from ABS for safe and convenient transportation up to 6 wash bottles.
- Although highly recommended for 500 ml bottles can also carry 250 ml bottles.
- Strong, light weight body construction and ergonomic handle offer both comfort and control.
- Easily stackable due to the tapered body form for reducing storage space.

catalogue number	for bottle max. diameter	basket W x D x H	pack quantity
062.66.001	90 mm	200 x 300 x 250 mm	1 piece



CARRIERS - *"for bottles"*

- Manufactured from epoxy coated steel wire for safe transportation of 500 ml, 1 lt and 2,5 lt standard chemical bottles.
- Easy to grab sturdy handle offers perfect balance and comfort during use.

catalogue number	for bottle max. diameter	for bottle volume	bottle array	pack quantity
062.66.500	100 mm	500 ml	6 x 500 ml	1 piece
062.66.901	105 mm	1000 ml	4 x 1000 ml	1 piece
062.66.902	140 mm	2500 ml	2 x 2500 ml	1 piece



Easy to grab sturdy handle offers perfect balance and comfort during use.



BOX - *"with compartments"*

- Manufactured from polypropylene for holding and carrying various products and samples.
- Featured with 4 compartments for easier organization of products.

catalogue number	box dimensions	pack quantity
062.66.003	530x330x90 mm	1 piece

BASKET - *"general purpose"*

- Manufactured from polypropylene for holding and carrying various flasks and bottles and many others.
- Featured with double compartment for flexible usage.
- Easily stackable due to the tapered body form for reducing storage space.

catalogue number	pack quantity
062.66.002	1 piece



TRANSPORT BOX - *"general purpose"*

- Manufactured from polypropylene for storing and transporting small size products.
- Clasping lid ensures safe closure and guarantees the interior being not effected by dust, humidity and other enviromental conditions.
- The clarity of the box enables the user to visibly check the sample integrity and use the box safely.
- Carry handle folds neatly allowing the boxes can be stacked on each other.
- The lid can open fully 180° offering easy access to the contents and easy cleaning of interior.
- Detachable tray with divisions enables easier organising of box contents.

catalogue number	pack quantity
062.66.004	1 piece





Detachable tray with divisions enables easier organising of contents.





BOXES - *"click lock lid"*

➤ Manufactured from polypropylene for easy and safe storage of most products.

➤ "Click-lock" system enables safe closure and easy opening of the box lid.

➤ The clarity of the box enables the user to visibly check the sample integrity and safe use of the box.

➤ Easily stackable due to the tapered body form for reducing storage space.

catalogue number	box W	box L	box H	box volume	pack quantity
062.36.910	385 mm	260 mm	155 mm	10 L	1 piece
062.36.920	460 mm	320 mm	180 mm	20 L	1 piece
062.36.930	510 mm	355 mm	230 mm	30 L	1 piece



Easily stackable due to the tapered body form for reducing storage space.

BOXES - *"double opening"*

➤ Manufactured from polypropylene for storing and transporting all products including food stuff.

➤ Clasping lid ensures safe closure and guarantees the interior being not effected by dust, humidity and other enviromental conditions.

➤ The clarity of the box enables the user to visibly check the sample integrity and safe use of the box safely.

➤ Easily stackable due to the tapered body form for reducing storage space.

➤ The lid can open fully 180° with two steps offering easy access to the contents and easy cleaning of interior.

catalogue number	box W	box L	box H	box volume	pack quantity
062.39.900	95 mm	150 mm	75 mm	0,75 L	1 piece
062.39.901	125 mm	185 mm	65 mm	1,00 L	1 piece
062.39.902	125 mm	185 mm	90 mm	1,50 L	1 piece
062.39.903	155 mm	230 mm	110 mm	3,00 L	1 piece
062.39.905	200 mm	280 mm	125 mm	5,00 L	1 piece
062.39.907	255 mm	355 mm	122 mm	7,50 L	1 piece
062.39.910	250 mm	345 mm	150 mm	10,00 L	1 piece
062.39.913	255 mm	355 mm	200 mm	13,00 L	1 piece



The lid can open fully 180° with two steps offering easy access to the contents and easy cleaning of interior.





BOXES - *"rail system"*

➤ Manufactured from polypropylene for storing and transporting all products including food stuff.

➤ Lid ensures safe closure and guarantees the interior being not effected by dust, humidity and other enviromental conditions.

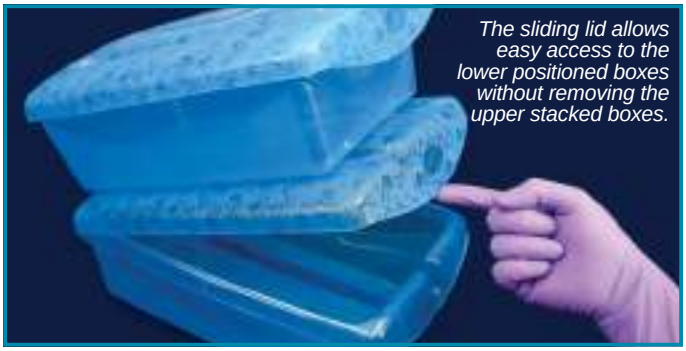
➤ The clarity of the box enables the user to visibly check the sample integrity.

➤ The lid is featured with a unique sliding locking system that locks the upper box to the bottom one and keeps the upper one stable without sliding.

➤ This system allows easy access to the lower positioned boxes without removing the upper stacked boxes.

➤ Easily stackable due to the sliding lock system design for reducing storage space.

catalogue number	box width	box length	box height	box volume	pack quantity
062.31.001	209 mm	324 mm	107 mm	3 L	1 piece
062.31.002	246 mm	370 mm	125 mm	5 L	1 piece



BOXES - *"foldable"*

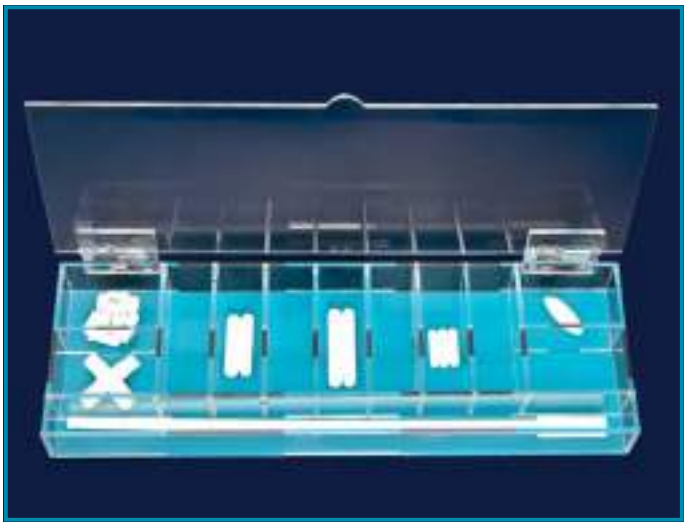
➤ Manufactured from polypropylene for easy and safe storage of most products.

➤ External reinforced body design allows rough handling under most inconvenient conditions.

➤ Unique design offers easy folding and reducing the volume of the box for reducing storage space.

➤ The folded box only covers 1/6 space of the unfolded box.

catalogue number	box width	box length	box height	box volume	pack quantity
062.38.904	171 mm	266 mm	105 mm	4 L	1 piece
062.38.915	300 mm	400 mm	145 mm	15 L	1 piece
062.38.945	400 mm	600 mm	220 mm	45 L	1 piece



BOX - *"with compartments" - "polystyrene"*



➤ Manufactured from polystyrene featured with different size compartments.

➤ Offers practical positioning and easy reach of different size small objects.

catalogue number	box width	box length	box height	compartment quantity	pack quantity
057.02.100	175 mm	85 mm	30 mm	10	1 piece

BOX - *"with compartments" - "acrylic"*

➤ Manufactured from acrylic featured with different size compartments. Offers practical positioning and easy reach of different size small objects such as magnetic stirrers.

➤ The long compartment is ideal to store longer objects including magnetic bar retrievers. Featured with a lid protecting the box interior from enviromental conditions.

catalogue number	box width	box length	box height	compartment quantity	pack quantity
057.02.101	330 mm	110 mm	35 mm	12	1 piece



DISPENSER BOXES - *"with compartments" - "acrylic"*

- Manufactured from crystal clear acrylic with excellent field of vision with one compartment.
- Ideal supportive assistants for storing and dispensing small sized products such as pipette tips, tubes, vials and many others.
- Generous openings provide easy and safe access to partiations.
- Covers are featured with easy opening hinged lids. Once opened, the lid stands open and enables easy filling and dispensing.
- Their flip-top covers guarantee safe and clean storage without been affected from dust, moisture and other enviromental effects.
- Featured with non-skid silicone feet for safe and stable stand on the desks.

- **Alternative 3 boxes:**
  - **Box with 1 compartment**
  - **Box with 2 compartments**
  - **Box with 3 compartments**



Covers are featured with easy opening hinged lids. Once opened, the lid stands open and enables easy filling and dispensing.

catalogue number	specifications	external dimensions	pack quantity
006.15.001	1 compartment	175 x 250 x 330 mm	1 piece
006.15.002	2 compartments	175 x 250 x 330 mm	1 piece
006.15.003	3 compartments	265 x 250 x 330 mm	1 piece



BOXES - *"with drawers"*

- Manufactured from polypropylene for easy and safe storage of various products.
- Drawers allows easy and fast reach to the compartment interiors.
- Can be stacked on top of each other or can be linked next to each other for forming practical combinations.

catalogue number	external dimensions	drawer height	shelf no	pack quantity
062.34.006	150x200x305 mm	50 mm	5	1 piece

BOXES - *"with compartments" - "2 layers"*



➤ Manufactured from polyropylene with 4 compartments that allow optimum organising of samples in the laboratories. Top layer can be slides to any direction for easy access to the bottom layer.

catalogue number	box W	box D	box H	pack quantity
062.66.005	330 mm	220 mm	60 mm	1 piece

CABINET

➤ Manufactured from crystal clear acrylic with excellent field of vision for storing various products, specially spectacles.

➤ Guarantees dust free storage of products and enables easy access to them.

➤ 4 wide shelves provides easy and safe access to partiations.

➤ Small objects can be placed to the upper row.

➤ Cover is featured with easy opening hinged lids. Once opened, the lid stands open and enables easy filling and dispensing.

➤ Magnetic fixators at side guarantees safe closure of the lid.

➤ Delivered with necessary screws to be mount to the wall.


Provides wall mounting option with holes on the frame.


Magnetic clasp on the lid guarantees safe closure.

Other technical specifications can be seen at catalogue page no 205.

DISPENSER BOX - *"large"*

➤ Manufactured from crystal clear acrylic with excellent field of vision.

➤ Ideal for storing and dispensing relatively large scale products such as pasteur pipettes.

➤ Featured with non-skid silicone feet for stable stand.

➤ Featured with an easy opening hinged lid. Once opened, the lid stands open for easy dispensing.

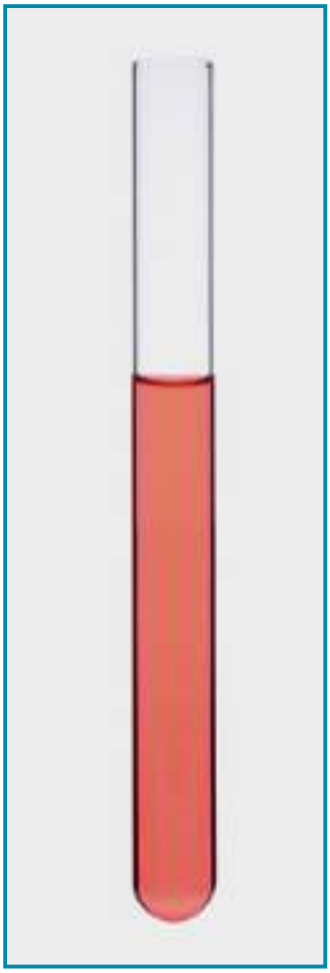
➤ Box offers safe and clean storage of pipettes without been effected from dust, moisture and other enviromental effects.

➤ Box external dimensions: 175x250x600 mm.

catalogue number	pack quantity
084.05.001	1 piece







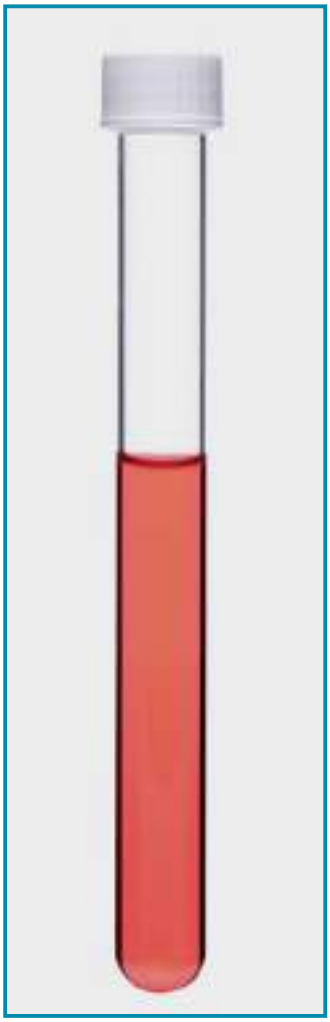
TEST TUBES - *"glass"*

- Manufactured by automated machines with consistent length and thickness.
- **Alternative 2 tubes:**
  - **Made from neutral glass**
  - **Made from borosilicate glass**
- Due to the properties of borosilicate glass highly recommended for over heated applications.

neutral glass test tubes	tube dimensions	wall thickness	pack quantity
077.01.000	6 x 40 mm	0,8/0,9 mm	100 pieces
077.01.001	10x75 mm	0,8/0,9 mm	100 pieces
077.01.021	12x75 mm	0,8/0,9 mm	100 pieces
077.01.002	12x100 mm	0,8/0,9 mm	100 pieces
077.01.003	13x100 mm	0,8/0,9 mm	100 pieces
077.01.031	13x130 mm	0,8/0,9 mm	100 pieces
077.01.004	16x100 mm	0,9/1,0 mm	100 pieces
077.01.005	16x160 mm	0,9/1,0 mm	100 pieces
077.01.006	18x180 mm	0,9/1,0 mm	100 pieces
077.01.007	20x200 mm	0,9/1,0 mm	100 pieces
077.01.008	20x220 mm	0,9/1,0 mm	100 pieces

borosilicate glass test tubes	tube dimensions	wall thickness	pack quantity
077.02.001	10x75 mm	0,9/1,0 mm	100 pieces
077.02.002	12x100 mm	0,9/1,0 mm	100 pieces
077.02.003	13x100 mm	0,9/1,0 mm	100 pieces
077.02.004	16x100 mm	1,0/1,1 mm	100 pieces
077.02.005	16x160 mm	1,0/1,1 mm	100 pieces
077.02.006	18x180 mm	1,0/1,1 mm	100 pieces





TEST TUBES - *"glass" - "with screw cap"*

- Manufactured from neutral glass featured with a polypropylene screw cap.
- Hermetic caps guarantee absolute leak-proof closure.
- Specially recommended for tissue culture or other similar applications.
- Tubes and caps are delivered in separate packings.

catalogue number	tube dimensions	wall thickness	pack quantity
077.03.001	16x100 mm	1,0 / 1,1 mm	100 pieces
077.03.002	16x160 mm	1,0 / 1,1 mm	100 pieces

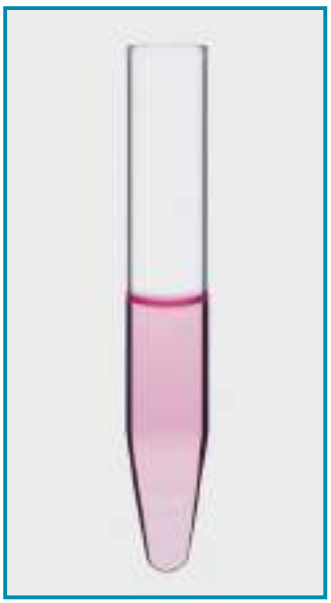


STOPPERS - *"polyethylene" - "flange"*

- Manufactured from polyethylene for perfect tight sealing of specially test tubes. Grooved, conical body shape guarantees perfect closure.

Other technical specifications can be seen at catalogue page no 115.



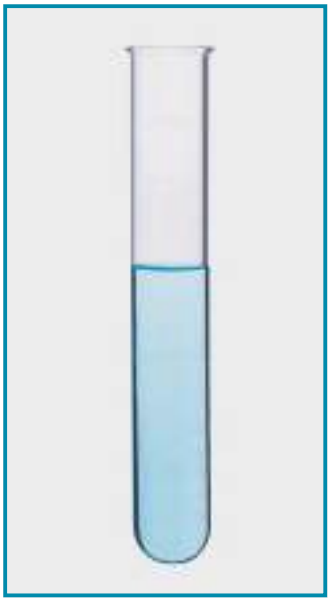


CENTRIFUGE TUBES - *"glass"*

- Manufactured from neutral glass with wall thickness 1,0 - 1,1 mm.
- Nominal capacity is approximately 15 ml. They stand up to 3.500 RCF and guarantee problem free centrifugation.
- **Alternative 2 tubes:**
  - **Tubes without graduation**
  - **Tubes with graduation**

tube centrifuge	tube dimensions	wall thickness	product specifications	pack quantity
078.01.001	16x100 mm	1,0 / 1,1 mm	non-graduated	100 pieces
078.01.002	16x100 mm	1,0 / 1,1 mm	graduated	10 pieces





TEST TUBES - *"P.P or P.S" - "disposable"*

- Manufactured from clear polypropylene or from polystyrene for disposable use.
- **Alternative 2 tubes:**
  - **Tubes with round bottom**
  - **Tubes with conical bottom**

polystyrene tubes	tube dimensions	bottom form	pack quantity
077.04.001	12x75 mm	round	1000 pieces
077.04.003	16x100 mm	round	500 pieces
077.04.005	16x100 mm	conical	500 pieces

polypropylene tubes	tube dimensions	bottom form	pack quantity
077.04.002	12x75 mm	round	1000 pieces
077.04.004	16x100 mm	round	500 pieces
077.04.006	16x100 mm	conical	500 pieces





CLAMP - *"for tubes" - "wood"*

- Manufactured from hardened wood for holding tubes in the most secure way.
- Featured with a steel spring for tight and firm holding of the tubes.
- Long handling arm avoids close contact of the fingers to the flame.

catalogue number	total length	pack quantity
080.04.001	180 mm	1 piece

CLAMP - *"for tubes" - "steel"*

- Manufactured from chromated steel for holding tubes in the most secure way.
- Featured with a steel spring and a finger for tight and firm holding of the tubes.
- Long handling arm avoids close contact of the fingers to the flame.

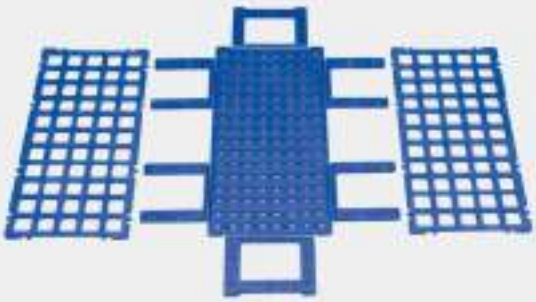
catalogue number	total length	pack quantity
080.04.002	150 mm	1 piece

TUBE RACKS - "polypropylene" - "dismantled"



- Manufactured from modified polypropylene which enables the racks to be used in water baths without floating.
- Guarantees temperature resistance between -20°C to +121°C.
- 4 different color options offer visual sorting and organising of different samples.
- The alpha numeric grid reference on the top tier of the rack ensures an easy tube location and sample positioning.
- Racks are supplied dismantled for reducing storage area.
- Racks can be easily assambled less than half a minute with the help of supplied instruction manuel.

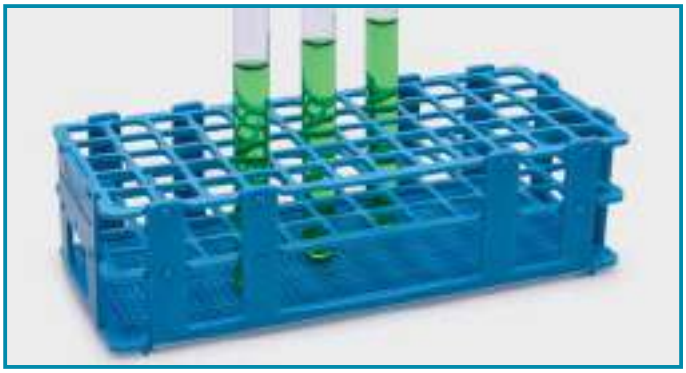
item no	for tubes	well quantity	tube array	rack L x W x H	white racks catalogue no	blue racks catalogue no	red racks catalogue no	orange racks catalogue no	pack quantity
1	13 mm	84	6 x 14	125x265x70 mm	079.01.001W	079.01.001B	079.01.001R	079.01.001O	1 piece
2	16 mm	55	5 x 11	125x265x70 mm	079.01.002W	079.01.002B	079.01.002R	079.01.002O	1 piece
3	18 mm	55	5 x 11	125x265x70 mm	079.01.003W	079.01.003B	079.01.003R	079.01.003O	1 piece
4	20 mm	40	4 x 10	125x265x70 mm	079.01.004W	079.01.004B	079.01.004R	079.01.004O	1 piece
5	25 mm	32	4 x 8	125x265x90 mm	079.01.005W	079.01.005B	079.01.005R	079.01.005O	1 piece
6	30 mm	21	3 x 7	125x265x90 mm	079.01.006W	079.01.006B	079.01.006R	079.01.006O	1 piece



Racks are supplied dismantled for reducing storage area. Can easily assembled within few seconds with the help of supplied instruction manuel.



4 different color options of the stands offer visual sorting and organising of different samples.



TEST TUBE RACKS - "P.P" - "dismantled"

- Manufactured from modified polypropylene which enables the racks to be used in water baths without floating. Racks are supplied dismantled for reducing storage area.

catalogue number	tube diameter	tube quantity	tube array	pack quantity
079.01.001	13 mm	90 pcs	6 x 15	1 piece
079.01.002	16 mm	60 pcs	5 x 12	1 piece
079.01.003	20 mm	40 pcs	4 x 10	1 piece
079.01.004	25 mm	24 pcs	3 x 8	1 piece
079.01.005	30 mm	21 pcs	3 x 7	1 piece

TUBE RACKS - *"polypropylene" - "foldable"*



- Manufactured from modified polypropylene which enables the racks to be used in water baths without floating.
- Guarantees temperature resistance between -20°C to +121°C.
- 4 different color options offer visual sorting and organising of different samples.
- Raised tube sockets guarantee firm hold of the tubes at their exact positions.
- The alpha numeric grid reference on the top tier of the rack ensures an easy tube location and sample positioning.
- Racks are supplied assembled and folded. Can be ready for use in few seconds with a simple action.
- These racks can be folded after use for reducing storage area.


4 different color options offer visual sorting and organising of different samples.


Raised tube sockets guarantee firm hold of the tubes at their exact positions.


Supplied assembled and folded. Can be ready for use in few seconds with a simple action.

for tubes	well quantity	tube array	rack L x W x H	white racks catalogue no	blue racks catalogue no	red racks catalogue no	orange racks catalogue no	pack quantity
13 mm	50	5 x 10	160x275x70 mm	079.03.001W	079.03.001B	079.03.001R	079.03.001O	1 piece
16 mm	50	5 x 10	160x275x70 mm	079.03.002W	079.03.002B	079.03.002R	079.03.002O	1 piece
18 mm	50	5 x 10	160x275x70 mm	079.03.003W	079.03.003B	079.03.003R	079.03.003O	1 piece
20 mm	45	5 x 9	160x275x70 mm	079.03.004W	079.03.004B	079.03.004R	079.03.004O	1 piece
30 mm	26	4 x 6/7	160x275x70 mm	079.03.005W	079.03.005B	079.03.005R	079.03.005O	1 piece

Lifting the rack


Pull the rack appart by holding the holes at top and bottom.

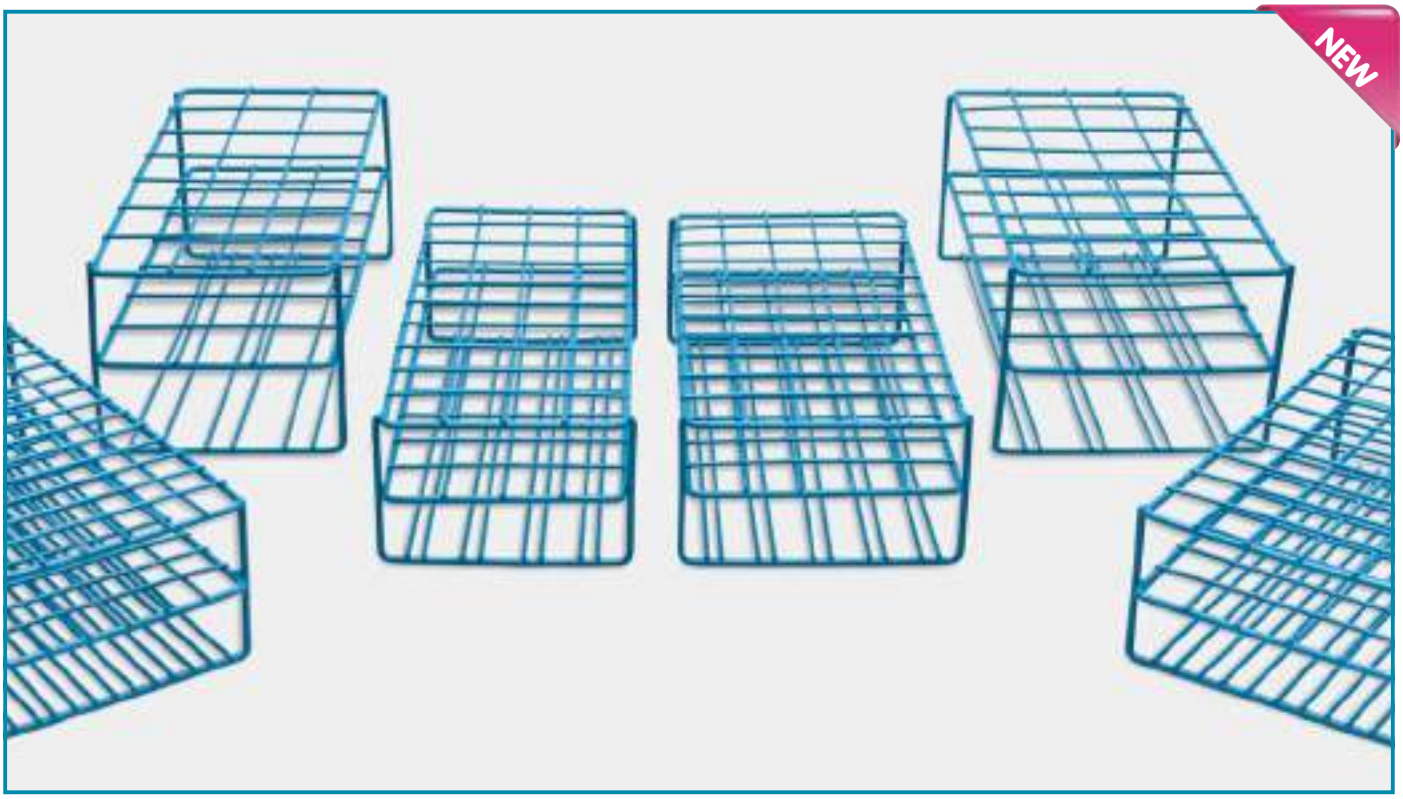

Pull side handles out and click into open position.

Folding the rack


Place the rack on a flat surface and push the side supports inwards.


Press on 4 corners and click the upper part to locking position.

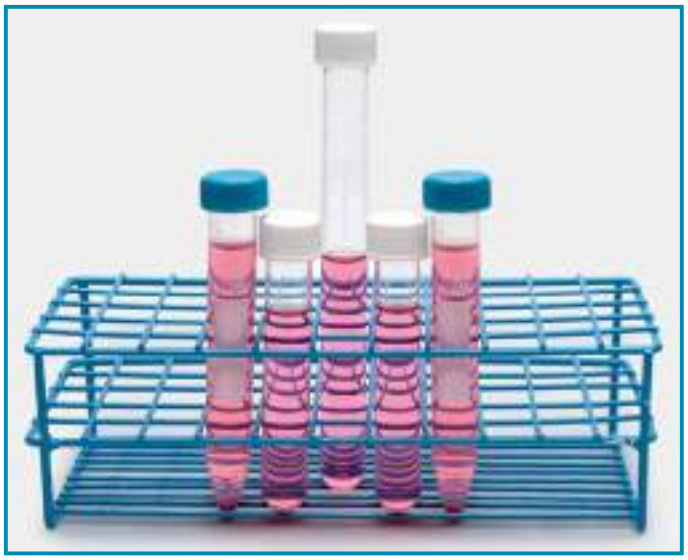
TUBE RACKS - *"epoxy coated steel"*



- They offer ideal solutions with square tube holes, reinforced edges and slotted bottom design or secure handling.
- Manufactured from high quality steel wire, welded and coated with heat cured blue epoxy.
- The epoxy coating is absolutely corrosion proof and can resist to salts, moderate acids, moderate alkalis and organic solvents.
- Ideal for autoclaving. Can resists from -200°C to +121°C.



Square tube holes and slotted bottom design guarantees firm hold of the tubes at exact positions.



item no	for tubes	well quantity	tube array	rack L x W x H	catalogue no	pack quantity
1	13 mm	84	6 x 14	100x220x70 mm	079.01.101	1 piece
2	16 mm	55	5 x 11	100x220x70 mm	079.01.102	1 piece
3	18 mm	55	5 x 11	110x235x70 mm	079.01.103	1 piece
4	20 mm	40	4 x 10	100x235x70 mm	079.01.104	1 piece
5	25 mm	32	4 x 8	120x230x95 mm	079.01.105	1 piece
6	30 mm	21	3 x 7	110x235x95 mm	079.01.106	1 piece

TUBE RACKS - *"st. steel"*

- Manufactured from high quality chemical and corrosion resistant AISI 304 grade stainless steel.
- Robust and seamless construction guarantees long life cycle.
- Smooth polished surface provides fast and easy cleaning.
- Offers a very long life cycle due to the very robust construction.
- Perfect design of the tube holes firmly keeps the tubes at their position.

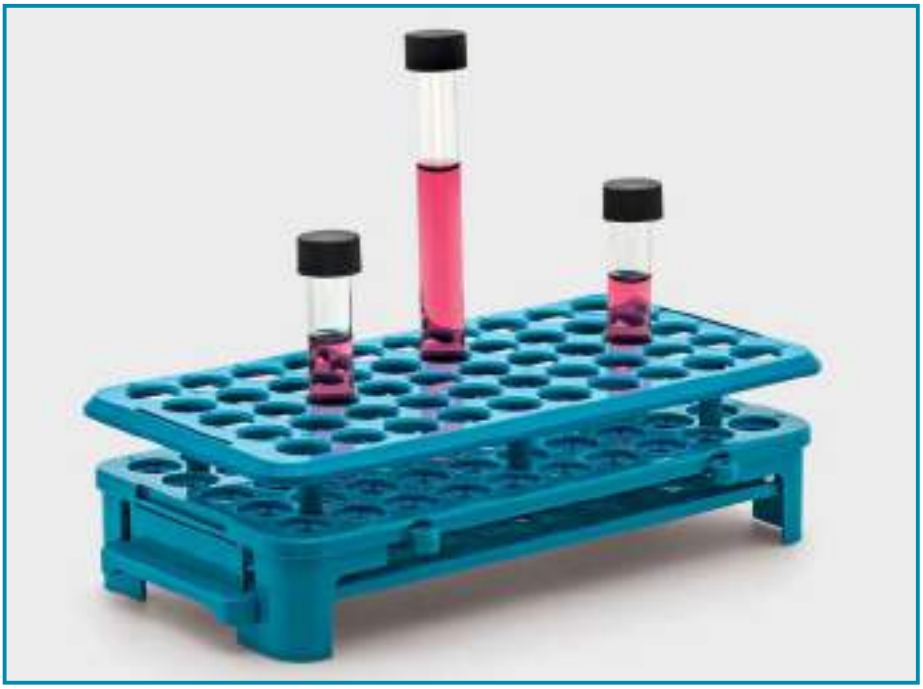
catalogue number	tube diameter	tube quantity	tube array	pack quantity
079.02.001	13 mm	50	5x10	1 piece
079.02.002	16 mm	50	5x10	1 piece
079.02.003	18 mm	40	4x10	1 piece



TUBE RACKS *"with silicone grips"*

- Manufactured from modified ABS which enables the racks to be used in water baths without floating.
- Offers a very long life cycle due to the very robust construction.
- Bottom of each tube compartment is featured with a silicone grip that firmly holds the tubes in position without waggle.
- Tubes can be inserted and extracted with a gentle push or pull.
- Racks are supplied already assembled and cannot be disambled.

catalogue number	tube diameter	tube qty	tube array	pack quantity
079.11.016	15/16 mm	50	5x10	1 piece







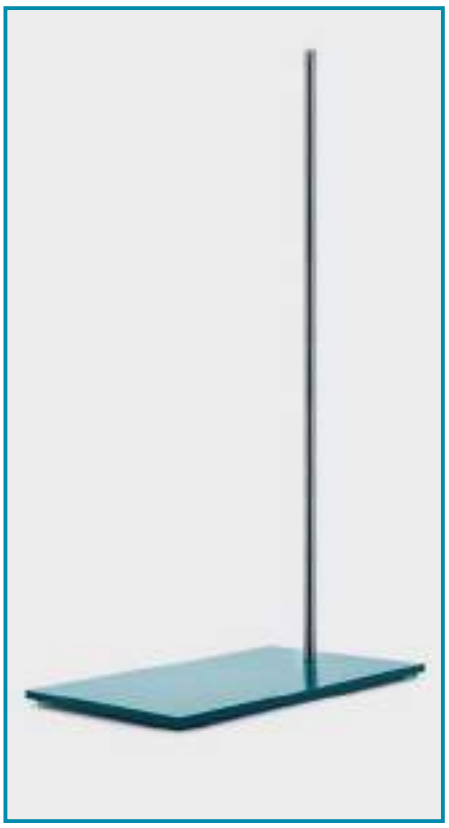


PUSH & EJECT function

Just simply press upwards the bottom layer of the tube rack by two hands. The eject mechanism automatically releases the tubes from their positions simultaneously and immediately.

SILICONE GRIP function

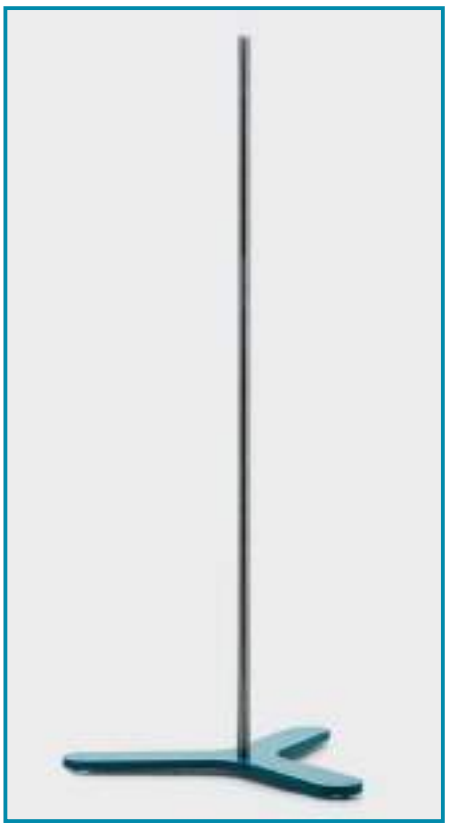
Bottom of each tube compartment is featured with a silicone grip that firmly holds the tubes in position without waggle.



STANDS - *"rectangular"*

- Highly stable rectangular base is manufactured from enamel coated sheet steel.
- Silicone feet placed under the base prevents the stand from sliding.
- Supplied without rods. Kindly select the suitable rod from below table.

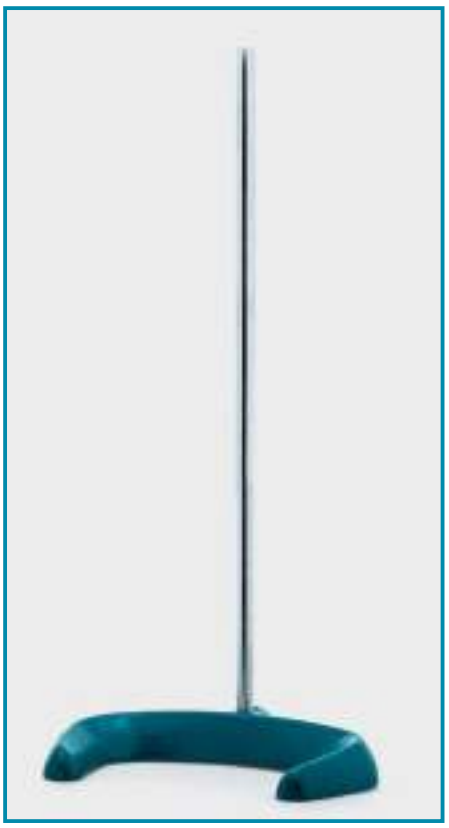
catalogue number	dimensions	pack quantity
049.01.130	130 x 210 mm	1 piece
049.01.150	150 x 300 mm	1 piece
049.01.200	200 x 315 mm	1 piece



STANDS - *"triangle"*

- Highly stable triangle base is manufactured from enamel coated sheet steel.
- Silicone feet placed under the base prevents the stand from sliding.
- Supplied without rods. Kindly select the suitable rod from below table.

catalogue number	foot length	base thickness	pack quantity
049.03.115	115 mm	8 mm	1 piece
049.03.150	150 mm	8 mm	1 piece



STANDS - *"horse shoe"*

- The most strudy stand type.
- Extremely stable horse shoe base is manufactured from enamel coated cast steel.
- Highly recommended for various applications such as titration, assembly of stirrers etc. Supplied with rods.

catalogue number	size	rod dia.	rod height	pack quantity
049.09.180	small	12 mm	600 mm	1 piece
049.09.250	medium	14 mm	700 mm	1 piece
049.09.320	large	16 mm	800 mm	1 piece

SUPPORT RODS

- Manufactured either from galvanised steel or stainless steel with a M10 thread.

galvanised steel	rod length	rod diameter	pack quantity
049.06.004	600 mm	12 mm	1 piece
049.06.005	750 mm	12 mm	1 piece
049.06.006	1000 mm	12 mm	1 piece

stainless steel	rod length	rod diameter	pack quantity
049.07.004	600 mm	12 mm	1 piece
049.07.005	750 mm	12 mm	1 piece
049.07.006	1000 mm	12 mm	1 piece





WIRE GAUZES

- Manufactured from galvanised steel with a ceramic circular plate at the center.

catalogue number	wire gauze dimensions	pack quantity
050.06.001	150x150 mm	1 piece



STANDS - *"ABS"*

- Highly stable rectangular base is manufactured from ABS.
- Base with dimensions 175x300 mm has two rod holding holes.
- Same rod can be placed either at the center or at the rear of the base offering multi advantages.
- White base color guarantees perfect visual observation of color changes during titration applications.
- Delivered complete with a screw-in support rod of 600 mm height.

catalogue number	base width	base length	pack quantity
049.04.175	175 mm	300 mm	1 piece





LABORATORY JACKS

- Table and base plate are manufactured from anodized aluminium. Scissors are made from stainless steel.
- Large control knob enables smooth and continuous control of table height.

catalogue number	plate width	plate length	pack quantity
050.05.150	150 mm	150 mm	1 piece
050.05.200	200 mm	200 mm	1 piece



TRIPOD - *"fix height"*

- Manufactured from chrome plated steel.
- Holding ring with 125 mm diameter offers practical use with all sizes of ceramic triangles and wire gauzes.

catalogue number	fix height	pack quantity
050.04.001	200 mm	1 piece



150 mm standard diameter of circular ring can be reduced to 125 mm with the help of supplied reducement ring.

TRIPOD - *"adjustable height"*

- Manufactured from chrome plated steel. Height can be adjustable from 200 mm to 300 mm.
- Holding ring with 150 mm diameter can be reduced to 125 mm with the supplied reducement attachment.

catalogue number	pack quantity
050.04.002	1 piece



CERAMIC TRIANGLES

- Consists of ceramic pipes around galvenised steel wire.

catalogue number	ceramic cylinder dimension	pack quantity
050.07.050	50 mm	1 piece
050.07.060	60 mm	1 piece



CLAMP - *"2 jaws" - "without bosshead"*

- Manufactured from high quality, corrosion resistant chromated steel holding for various objects in the most secure way.
- PVC coated insulated jaws guarantee perfect heat insulation. Soft and elastic coating holds the glassware gently and prevent possible breakage.
- Individually adjustable clamps guarantee perfect and precise control of holding pressure and holding position.
- Clamps can be opened and closed smoothly with a 50 mm grip diameter.

catalogue number	pack quantity
045.01.001	1 piece



CLAMP - *"2 jaws" - "with bosshead"*

- Manufactured from high quality, corrosion resistant chromated steel holding for various objects in the most secure way.
- Featured with a swivel bosshead which provides 360° swivel of the clamped object around their axis. Bosshead locking feature guarantees perfect position hold of the clamped objects. Adjustable clamps guarantee perfect pressure control.
- PVC coated insulated jaws guarantee perfect heat insulation. Soft coating holds the glassware gently and prevent breakage.
- Clamps can be opened and closed smoothly with a 50 mm grip diameter.

catalogue number	pack quantity
045.04.001	1 piece



CLAMP - *"3 jaws" - "without bosshead"*

- Manufactured from high quality, corrosion resistant chromated steel holding for various objects in the most secure way.
- PVC coated insulated jaws guarantee perfect heat insulation. Soft and elastic coating holds the glassware gently and prevent possible breakage.
- Individually adjustable clamps guarantee perfect and precise control of holding pressure and holding position.
- Clamps can be opened and closed smoothly with a 70 mm grip diameter.

catalogue number	pack quantity
045.03.001	1 piece

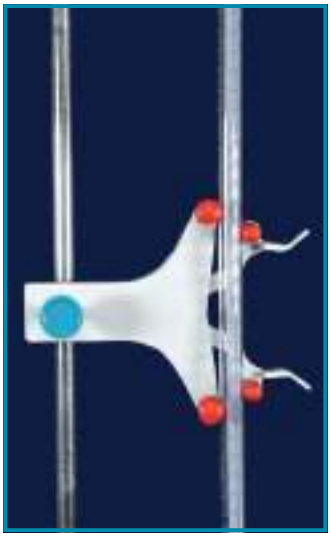


CLAMP - *"3 jaws" - "with bosshead"*

- Manufactured from high quality, corrosion resistant chromated steel holding for various objects in the most secure way.
- Featured with a swivel bosshead which provides 360° swivel of the clamped object around their axis. Bosshead locking feature guarantees perfect position hold of the clamped objects. Adjustable clamps guarantee perfect pressure control.
- PVC coated insulated jaws guarantee perfect heat insulation. Soft coating holds the glassware gently and prevent breakage.
- Clamps can be opened and closed smoothly with a 70 mm grip diameter.

catalogue number	pack quantity
045.06.001	1 piece

CLAMP - *"for 1 burette" - "steel"*



- Manufactured from steel to hold one straight burette at a time.
- Unique design guarantees firm hold of the burettes and offers an uninterrupted easy observation of volume graduations and meniscus level through all angles.
- Clamps can be used on support rods of diameter 10 mm to 12 mm.
- Fixing head featured with flexible springs offers easy insertion and extraction of the burettes.

catalogue number	pack quantity
018.05.001	1 piece

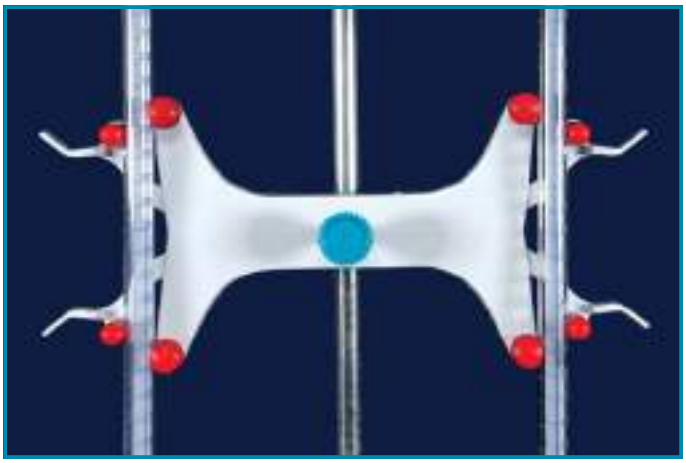
CLAMP - *"for 1 burette" - "polypropylene"*



- Manufactured from polypropylene to hold one straight burette at a time.
- Unique design guarantees firm hold of the burettes and offers an uninterrupted easy observation of volume graduations and meniscus level through all angles.
- Clamps can be used on support rods of diameter 10 mm to 12 mm.
- Fixing head featured with flexible springs offers easy insertion and extraction of the burettes.

catalogue number	pack quantity
018.06.001	1 piece

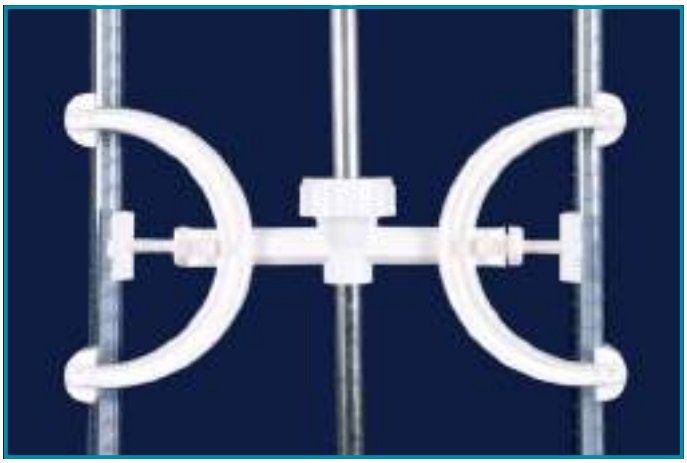
CLAMP - *"for 2 burettes" - "steel"*



- Manufactured from steel to hold two straight burettes at a time.
- Unique design guarantees firm hold of the burettes and offers an uninterrupted easy observation of volume graduations and meniscus level through all angles.
- Fixing head featured with flexible springs offers easy insertion and extraction of the burettes.
- Clamps can be used on support rods of diameter 10 mm to 12 mm.

catalogue number	pack quantity
018.05.002	1 piece

CLAMP - *"for 2 burettes" - "polypropylene"*



- Manufactured from polypropylene to hold two straight burettes at a time.
- Unique design guarantees firm hold of the burettes and offers an uninterrupted easy observation of volume graduations and meniscus level through all angles.
- Fixing head featured with flexible springs offers easy insertion and extraction of the burettes.
- Clamps can be used on support rods of diameter 10 mm to 12 mm.

catalogue number	pack quantity
018.06.002	1 piece



CLAMP - *"for frame work"*

- Manufactured from high quality, corrosion resistant chromated steel.
- Ideal for frame works and fixing perpendiculars.
- Clamps can be opened and closed smoothly by a screw thread with a 12 mm grip diameter.

catalogue number	pack quantity
046.07.001	1 piece



CLAMP - *"for thermometers"*

- Manufactured from high quality, corrosion resistant chromated steel for holding thermometers in the most secure way.
- Featured with a swivel bosshead which provides 360° swivel of the clamped object around their axis.
- Bosshead locking feature guarantees perfect position hold of the clamped objects.
- Fixing head featured with flexible springs offers easy insertion and extraction of the thermometers.
- Clamps can be opened and closed smoothly with a 30 mm grip diameter.

catalogue number	pack quantity
060.04.001	1 piece



BOSSHEAD - *"standard" - "fix position"*

- Manufactured from high quality, corrosion resistant chromated steel for holding rods in the most secure way.
- Holds the objects on a fixed position.
- Clamps can be opened and closed smoothly with a 20 mm grip diameter.

catalogue number	pack quantity
046.01.001	1 piece



BOSSHEAD - *"heavy duty" - "fix position"*

- Manufactured from high quality, corrosion resistant chromated steel for holding rods in the most secure way.
- Holds the objects on a fixed position.
- Clamps can be opened and closed smoothly with a 15 mm grip diameter.

catalogue number	pack quantity
046.05.001	1 piece



BOSSHEAD - *"heavy duty" - "fix position"*

- Manufactured from high quality, corrosion resistant powder coated steel for holding rods in the most secure way.
- Holds the objects on a fixed position.
- Sturdy construction guarantees the use with heavy objects.
- Clamps can be opened and closed smoothly with a 30 mm grip diameter.

catalogue number	pack quantity
046.05.002	1 piece



BOSSHEAD - *"standard" - "swivel head"*

- Manufactured from high quality, corrosion resistant chromated steel for holding rods in the most secure way.
- Featured with a swivel bosshead which provides 360° swivel of the clamped object around their axis.
- Bosshead locking feature guarantees perfect position hold of the clamped objects.
- Clamps can be opened and closed smoothly with a 20 mm grip diameter.

catalogue number	pack quantity
046.01.002	1 piece



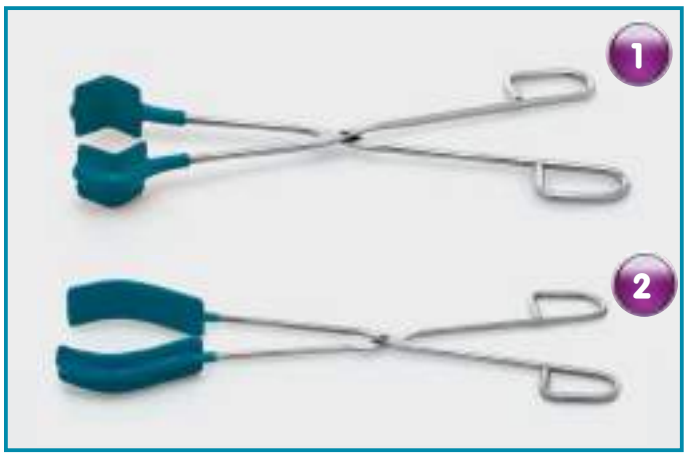
TONGS - *"rod jaws"*

➤ Manufactured from high quality, corrosion resistant chromated steel for holding erlenmeyers and flasks in the most secure way.

➤ PVC coated insulated jaws guarantees perfect heat insulation.

➤ Soft and elastic coating holds the glassware gently and prevent possible breakage.

catalogue number	pos. no	pack quantity
029.03.001	1	1 piece
026.03.001	2	1 piece



TONGS - *"flat jaws"*

➤ Manufactured from high quality, corrosion resistant chromated steel for holding erlenmeyers and flasks in the most secure way.

➤ PVC coated insulated jaws guarantees perfect heat insulation.

➤ Soft and elastic coating holds the glassware gently and prevent possible breakage.

catalogue number	pos. no	pack quantity
029.03.002	1	1 piece
026.03.002	2	1 piece



TONGS - *"for evaporating dishes"*

➤ Manufactured from high quality, corrosion resistant chromated steel for holding dishes in the most secure way.

➤ Unique design with grabbing jaws enables easy and safe holding of dishes preventing possible breakage.

Other technical specifications can be seen at catalogue page no 100.



TONGS - *"for crucibles"*

➤ Manufactured from high quality, corrosion resistant chromated steel for holding crucibles in the most secure way.

➤ Unique design with grabbing jaws enables easy and safe holding of crucibles preventing possible breakage.

Other technical specifications can be seen at catalogue page no 102.



TONGS - *"for tubes" - "wood"*

➤ Manufactured from hardened wood for holding tubes in the most secure way.

➤ Featured with a steel spring for tight and firm holding of the tubes.

➤ Long handling arm avoids close contact of the fingers to the flame.

Other technical specifications can be seen at catalogue page no 73.



TONGS - *"for tubes" - "steel"*

➤ Manufactured from chromated steel for holding tubes in the most secure way.

➤ Featured with a steel spring and a finger for tight and firm holding of the tubes.

➤ Long handling arm avoids close contact of the fingers to the flame.

Other technical specifications can be seen at catalogue page no 73.



SPATULAS - *"st. steel" - "macro spoon"*

➤ Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.

➤ Most commonly used spatula. Featured with a macro spoon for medium and large size particles at one end and a straight/flat spatula at the other end.

➤ Robust and seamless construction guarantees long life cycle.

➤ Smooth polished surfaces provide fast and easy cleaning.

catalogue number	total length	pack quantity
047.01.120	120 mm	1 piece
047.01.150	150 mm	1 piece
047.01.180	180 mm	1 piece
047.01.210	210 mm	1 piece
047.01.250	250 mm	1 piece
047.01.300	300 mm	1 piece



SPATULAS - *"st. steel" - "double end"*

➤ Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.

➤ Suitable for transfering products from flat or sticky surfaces. Featured with a round/flat spatula at one end and a straight/flat spatula at the other end.

➤ Robust and seamless construction guarantees long life cycle.

➤ Smooth polished surfaces provide fast and easy cleaning.

catalogue number	total length	pack quantity
047.07.130	130 mm	1 piece
047.07.150	155 mm	1 piece
047.07.185	180 mm	1 piece
047.07.210	210 mm	1 piece
047.07.250	255 mm	1 piece
047.07.300	300 mm	1 piece



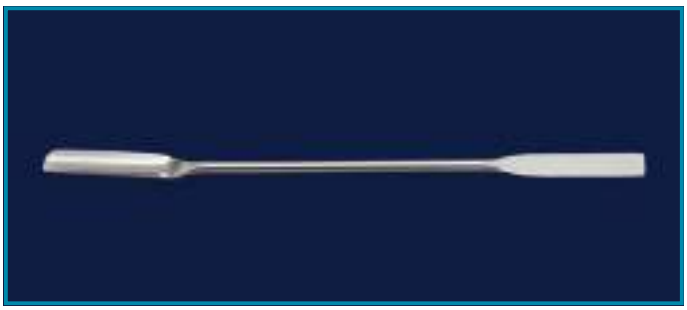
SPATULAS - *"st. steel" - "micro spoon"*

➤ Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.

➤ Suitable for small size objects. Featured with a micro spoon for small size particles at one end and a straight/flat spatula at the other end.

➤ Robust and seamless construction guarantees long life cycle. Smooth polished surfaces provide fast and easy cleaning.

catalogue number	total length	pack quantity
047.06.150	150 mm	1 piece
047.06.180	180 mm	1 piece
047.06.210	210 mm	1 piece



SPATULAS - *"st. steel" - "round grooved"*

➤ Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.

➤ Suitable for transfering tiny particles without spillage. Featured with a grooved spoon at one end and a straight/flat spatula at the other end.

➤ Robust and seamless construction guarantees long life cycle. Smooth polished surfaces provide fast and easy cleaning.

catalogue number	total length	pack quantity
047.02.150	150 mm	1 piece
047.02.180	185 mm	1 piece
047.02.210	210 mm	1 piece



SPATULAS - *"P.P" - "macro spoon"*

➤ Manufactured from high quality flexible polypropylene.

➤ Most commonly used spatula. Featured with a macro spoon for medium and large size particles at one end and a straight/flat spatula at the other end.

➤ Robust and seamless construction guarantees long life cycle. Smooth polished surfaces provide fast and easy cleaning.

catalogue number	total length	pack quantity
047.30.150	150 mm	1 piece
047.30.180	180 mm	1 piece
047.30.210	210 mm	1 piece



SPATULAS - *"st. steel" - "curved end"*

➤ Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.

➤ Suitable for transfering products from flat or sticky surfaces. Featured with a curved/flat spatula at one end and a curved / flat spatula at the other end.

➤ Robust and seamless construction guarantees long life cycle. Smooth polished surfaces provide fast and easy cleaning.

catalogue number	total length	pack quantity
047.03.150	150 mm	1 piece
047.03.180	180 mm	1 piece
047.03.210	210 mm	1 piece



SPATULAS - *"st. steel" - "poly"*

➤ Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.

➤ Suitable for transfering products from edges and corners of flasks and bottles. Featured with a ellipsoidal/curved spoon at one end and a straight/flat triangular spatula at the other end.

➤ Robust and seamless construction guarantees long life cycle. Smooth polished surfaces provide fast and easy cleaning.

catalogue number	total length	pack quantity
047.08.150	150 mm	1 piece
047.08.180	180 mm	1 piece
047.08.210	210 mm	1 piece



SPATULAS - *"st. steel" - "chattaway"*

➤ Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.

➤ Suitable for transfering products from flat or sticky surfaces. Featured with a curved/flat spatula at one end and a straight/ flat spatula at the other end.

➤ Robust and seamless construction guarantees long life cycle.

➤ Smooth polished surfaces provide fast and easy cleaning.

catalogue number	total length	pack quantity
047.09.100	100 mm	1 piece
047.09.130	130 mm	1 piece
047.09.150	150 mm	1 piece
047.09.180	180 mm	1 piece
047.09.210	210 mm	1 piece



SPATULAS - *"st. steel" - "flat knife"*

➤ Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel with a wooden handle.

➤ Suitable for large size transfering products. Featured with a flat knife formed spatula at one end and a wooden handle at the other end.

➤ Robust and seamless construction guarantees long life cycle.

➤ Smooth polished surfaces provide fast and easy cleaning.

catalogue number	knife length	pack quantity
047.10.075	75 mm	1 piece
047.10.100	100 mm	1 piece
047.10.150	150 mm	1 piece
047.10.200	200 mm	1 piece
047.10.300	300 mm	1 piece



SPATULAS - *"in a wallet"*

➤ A practical set of 6 most common and frequently used spatulas all manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel .

➤ Set consists of one of each micro spoon / curved and ground/ chattaway spatula with all 180 mm length and dissecting forcep / blunt - sharp scissors with 160 mm length.

➤ All spatulas are placed into suitable holding pockets of the wallet that keeps the spatulas away from disorder and exterior effects.

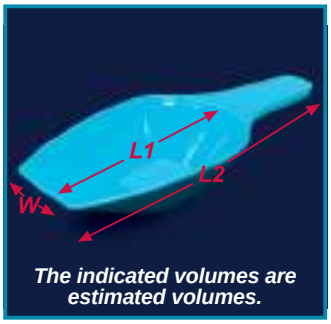
spatula set	pack quantity
047.05.001	1 piece

empty wallet	pack quantity
047.05.002	1 piece



SCOOPS - *"polypropylene" - "self standing"*

- Manufactured from high quality polypropylene which resists to most acids, bases and many commonly used solvents.
- Guarantees temperature resistance between -20°C to +121°C.
- Perfect shape and size enable efficient sampling of various powder, granulate and paste form samples.
- 9 volume sizes from 2 ml to 1000 ml offer an wide sampling option from smallest to largest sample volume.
- Due to their flat bottom construction these scoops can stand horizontal on a flat surface and can also be used as a weighing pan.
- With the help of precision formed sharp edge they offer best performance while picking up samples even from wet surfaces.
- Featured with easy to grip handles for comfortable use. Approximate volume values are printed on the handles.
- Same size scoops are easily stackable for reducing storage space.



The indicated volumes are estimated volumes.

white scoops	blue scoops	volume	L1	L2	W	pack quantity
037.30.002W	037.30.002B	2 ml	31 mm	62 mm	10 mm	1 piece
037.30.005W	037.30.005B	5 ml	42 mm	82 mm	13 mm	1 piece
037.30.010W	037.30.010B	10 ml	56 mm	96 mm	16 mm	1 piece
037.30.025W	037.30.025B	25 ml	74 mm	128 mm	21 mm	1 piece
037.30.050W	037.30.050B	50 ml	92 mm	164 mm	27 mm	1 piece
037.30.100W	037.30.100B	100 ml	118 mm	203 mm	34 mm	1 piece
037.30.250W	037.30.250B	250 ml	153 mm	263 mm	44 mm	1 piece
037.30.500W	037.30.500B	500 ml	195 mm	317 mm	57 mm	1 piece
037.30.901W	037.30.901B	1000 ml	250 mm	390 mm	72 mm	1 piece



Due to their flat bottom construction these scoops can stand horizontal on a flat surface and can also be used as a weighing pan.



Featured with easy to grip handles for comfortable use. Approximate volume values are printed on the handles.



Same size scoops are easily stackable for reducing storage space. Different color options offer easy visual sorting.



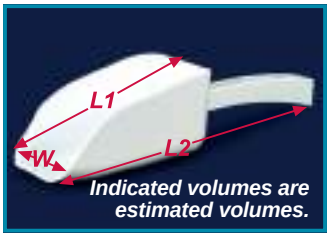
With the help of precision formed sharp edge they offer best performance while picking up samples even from wet surfaces.



SCOOPS - *"polystyrene" - "self standing" - "with & without lid"*

- Manufactured from high quality polystyrene which resists to most acids, bases and many commonly used solvents. Guarantees temperature resistance between -10°C to +70°C.
- Perfect shape and size enable efficient sampling of various powder, granulate and paste form samples.
- 6 volume sizes from 25 ml to 500 ml offer an wide sampling option from smallest to largest sample volume.
- Due to their flat bottom and slightly inclined handle construction these scoops stand horizontal on the flat surfaces and can also be used as weighing pans.
- Easy to grip and long handle increases the distance between the hand and the sample to reduce cross contamination risks and also offers comfortable use.
- Approximate volume values are printed on the handles.

- **Alternative 2 scoops:** **Non-sterile scoops** / **Sterile scoops**
- Sterile scoops are manufactured at aseptically sterile production halls and then send to gamma sterilisation. Such informations as lot number, production and expiry dates etc are indicated on the packing.
- Sterile scoops are manufactured as single use. They eliminate the cost of separate sterile bags or containers in sample collection process.
- Sterile scoops are featured with a press-on, transparent lid which enables easy identification of sample and protects the samples from dust, moisture and other enviromental effects.
- The transparent lid should be closed immediately after the sampling procedure to secure a sterile and contemination-free sample. Lid is featured with a frosted write on area.



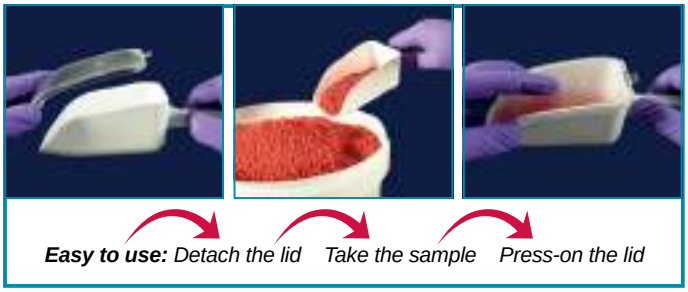
non-sterile white scoops	non-sterile blue scoops	sterile white scoops with lid	volume	L1	L2	W	pack quantity
037.35.025W	037.35.025B	037.36.025W	25 ml	52 mm	137 mm	30 mm	1 piece
037.35.050W	037.35.050B	037.36.050W	50 ml	68 mm	158 mm	33 mm	1 piece
037.35.100W	037.35.100B	037.36.100W	100 ml	92 mm	200 mm	42 mm	1 piece
037.35.150W	037.35.150B	037.36.150W	150 ml	105 mm	215 mm	46 mm	1 piece
037.35.250W	037.35.250B	037.36.250W	250 ml	118 mm	226 mm	55 mm	1 piece
037.35.500W	037.35.500B	037.36.500W	500 ml	150 mm	275 mm	67 mm	1 piece



Precision formed sharp edge offers best performance while picking up samples even from wet surfaces.



Flat bottom and slightly inclined handle construction offer horizontal stand on the flat surfaces.



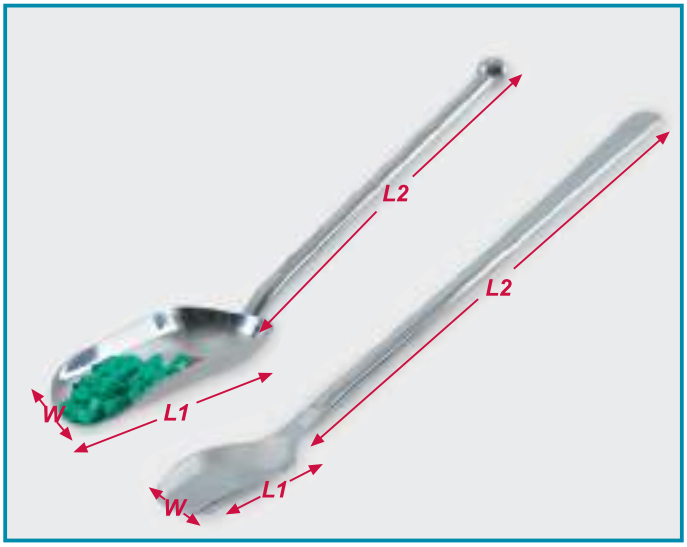




SCOOPS - *"stainless steel"*

- Manufactured from high quality, AISI 304 stainless steel.
- Suitable for spooning medium and large size products. Featured with a round formed spoon at one end and a steel handle at the other end.
- Robust and seamless construction guarantees long life cycle. Smooth polished surfaces provide easy cleaning.

catalogue number	scoop (W) Ø	scoop (L1) L	handle (L2) L	pack quantity
037.08.050	50 mm	96 mm	92 mm	1 piece
037.08.075	75 mm	145 mm	100 mm	1 piece
037.08.100	100 mm	203 mm	102 mm	1 piece
037.08.120	120 mm	230 mm	105 mm	1 piece



SCOOP & SPOON - *"stainless steel"*

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Suitable for spooning small to medium size products. Featured with a round formed spoon at one end and a handle at the other end.
- Robust and seamless construction guarantees long life cycle.
- Smooth polished surfaces provide fast and easy cleaning.

scoop cat. no.	scoop (W) Ø	scoop (L1) L	handle (L2) L	pack quantity
047.18.002	21 mm	63 mm	140 mm	1 piece

spoon cat. no.	spoon (W) Ø	spoon (L1) L	handle (L2) L	pack quantity
047.18.001	11 mm	30 mm	160 mm	1 piece





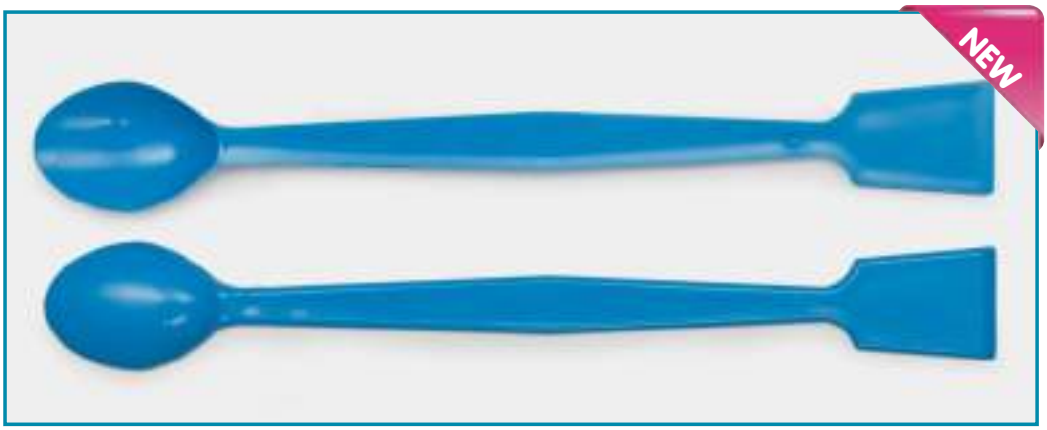


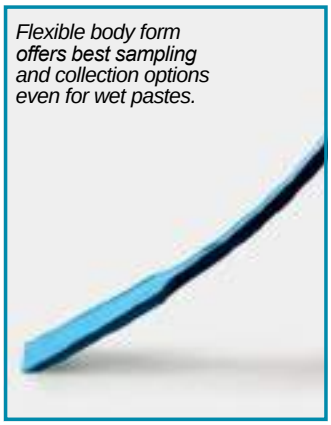
SPOONS - *"polystyrene" - "sterile"*

- Manufactured from high quality polystyrene as single use.
- Resists to most acids, bases and many commonly used solvents. Guarantees temperature resistance between -10°C to +70°C.
- Sterile spoons are "DNase, RNase and pyrogen-free" since sterilised by gamma irradiation after production step. Individually single packed with lot number, production date and expiry date printed on the package.
- Approximate volume values are printed on the handles.
- Perfect shape and size enable efficient sampling of various powder, granulate and paste form samples.
- Easy to grip and long handle increases the distance between the hand and the sample to reduce cross contamination risks.

catalogue number	spoon volume	spoon (W) Ø	spoon (L1) L	handle (L2) L	pack quantity
037.36.002	2,5 ml	22 mm	36 mm	54 mm	1 piece
037.36.010	10 ml	31 mm	56 mm	110 mm	1 piece

SPATULAS - *"polypropylene" - "macro spoon"*





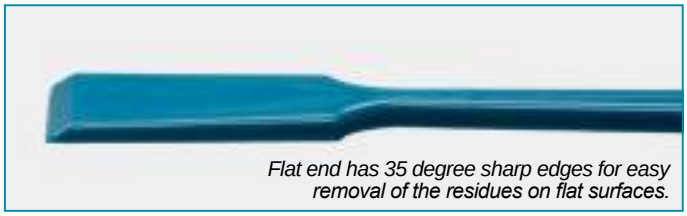
Flexible body form offers best sampling and collection options even for wet pastes.

- Manufactured from high quality flexible polypropylene.
- Most commonly used spatula. Featured with a macro spoon form for small, medium and large size particles at one end and a straight/flat spatula form at the other end.
- Robust and seamless construction guarantees long life cycle. Smooth polished surfaces provide fast and easy cleaning.
- Also offers practical solutions for mixing and stirring solutions manuelly by hand.
- Flat end has 35 degree sharp edges for easy removal of the residues on flat surfaces.
- Flexible body form offers best sampling and collecting.
- **Alternative 2 spatulas:** **Non-sterile spatulas** / **Sterile spatulas**
- Gamma sterilised sterile spatulas carry such informations as lot number, production and expiry dates etc on the packing.

total length	non-sterile spatulas	sterile spatulas	pack quantity
150 mm	047.32.150	047.33.150	1 piece
180 mm	047.32.180	047.33.180	1 piece
210 mm	047.32.210	047.33.210	1 piece



Featured with a macro spoon form for small, medium and large size particles



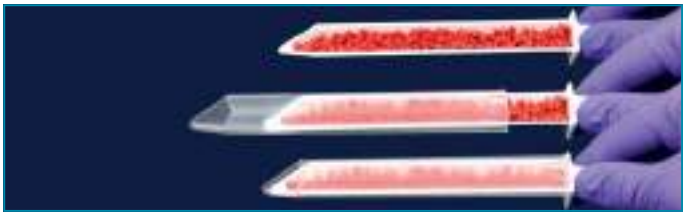
Flat end has 35 degree sharp edges for easy removal of the residues on flat surfaces.





Sharp blade penetrates directly into paper or plastic bags for optimum and quick sampling process.

Spatulas are featured with a lid hich protects the samples from dust, moisture and other effects.



SPATULAS - *"sterile" - "with lid" - "polystyrene"*

- Manufactured from high quality polystyrene which resists to most acids, bases and many commonly used solvents. Guarantees temperature resistance between -10°C to +70°C.
- Sterile spatulas are manufactured as single use. They eliminate the cost of seperate sterile bags or containers in sample collection.
- Perfect shape and size enable efficient sampling of various powder, granulate and paste form samples.
- Sharp blade penetrates directly into paper or plastic bags for optimum and quick sampling process.
- Easy to grip and long handle increases the distance between the hand and the sample to reduce cross contamination risks.
- Approximate volume values are printed on scoop handles.
- Sterile spatulas are featured with a transparent lid which protects the samples from dust, moisture and other effects.
- The transparent lid should be closed immediately after the sampling to secure a sterile and contemination-free sample.
- Lid is featured with a frosted write on area for practical use.

catalogue number	spatula (W) L	spatula (L1) L	handle (L2) L	pack quantity
037.36.001	13 mm	150 mm	110 mm	1 piece



FORCEPS - *"general use"*

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Most commonly used forceps. Featured with a blunt point tip without jaw.
- Robust and seamless construction guarantees long life cycle.
- Grid lines on the middle part of the body enables safe and easy handling.

catalogue number	total length	pack quantity
048.01.105	105 mm	1 piece
048.01.115	115 mm	1 piece
048.01.130	130 mm	1 piece
048.01.145	145 mm	1 piece
048.01.160	160 mm	1 piece
048.01.200	200 mm	1 piece
048.01.250	250 mm	1 piece
048.01.300	300 mm	1 piece



FORCEPS - *"general use" - "with tooth"*

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Most commonly used forceps. Featured with a blunt point tip with a 1:2 array jaws for much effective and forced grasping.
- Robust and seamless construction guarantees long life cycle.
- Grid lines on the middle part of the body enables safe and easy handling.

catalogue number	total length	pack quantity
048.02.115	115 mm	1 piece
048.02.130	130 mm	1 piece
048.02.145	145 mm	1 piece
048.02.160	160 mm	1 piece



FORCEPS - *"dissecting use" - "straight tip"*

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Most commonly used forceps for dissecting. Featured with an straight fine sharp point tip without jaw.
- Robust and seamless construction guarantees long life cycle.
- Grid lines on the middle part of the body enables safe and easy handling.

catalogue number	total length	pack quantity
048.07.105	105 mm	1 piece
048.07.115	115 mm	1 piece
048.07.130	130 mm	1 piece
048.07.150	150 mm	1 piece
048.07.160	160 mm	1 piece
048.07.200	200 mm	1 piece



FORCEPS - *"dissecting use" - "curved"*

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Most commonly used forceps for dissecting. Featured with an inclined fine sharp point tip without jaw.
- Robust and seamless construction guarantees long life cycle.
- Grid line on the middle part of the body enables safe and easy handling.

catalogue number	total length	pack quantity
048.08.105	105 mm	1 piece
048.08.115	115 mm	1 piece
048.08.130	130 mm	1 piece



FORCEPS - *"general use" - "non-sterile"*

- Manufactured from high quality, chemical and corrosion resistant ABS.
- Fine sharp tips and straight body form offer multiple advantages.

catalogue number	total length	pack quantity
048.10.110	110 mm	10 pieces



FORCEPS - *"general use" - "sterile"*

- Manufactured under germ-free aseptically sterile conditions with extreme sterility control from ABS.
- Certified as "DNase, RNase and pyrogen-free since sterilised by gamma irradiation after production step.
- Individually single packed with lot number, production date and expiry date printed on the package.
- Fine sharp tips and straight body form offer multiple advantages.

catalogue number	total length	pack quantity
048.11.110	110 mm	1 piece



FORCEPS - *"for cover glasses" - "inclined"*

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Most commonly used forceps for handling cover glasses. Featured with a flat and inclined tip.
- Robust and seamless construction guarantees long life cycle.
- Grid lines on the middle part of the body enables safe and easy handling.

catalogue number	total length	pack quantity
048.03.001	105 mm	1 piece



FORCEPS - *"for cover glasses" - "straight"*

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Most commonly used forceps for handling cover glasses. Featured with a flat and straight tip.
- Robust and seamless construction guarantees long life cycle.
- Grid lines on the middle part of the body enables safe and easy handling.

catalogue number	total length	pack quantity
048.03.002	105 mm	1 piece



FORCEPS - *"for filter papers"*

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Most commonly used forceps for handling filter papers. Flattened jaws grab paper gently reducing the risk of laceration.
- Robust and seamless construction guarantees long life cycle.
- Grid lines on the middle part of the body enables safe and easy handling.

catalogue number	total length	pack quantity
048.04.001	105 mm	1 piece



SCISSORS - *"general use" - "sharp tip"*

➤ Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel with straight form.

➤ Most commonly used scissors. Featured with a sharp/sharp tip and close shank.

➤ Robust and seamless construction guarantees long life cycle.

catalogue number	total length	pack quantity
048.22.130	130 mm	1 piece
048.22.160	155 mm	1 piece



SCISSORS - *"general use" - "blunt tip"*

➤ Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel with straight form.

➤ Most commonly used scissors. Featured with a blunt/blunt tip and close shank.

➤ Robust and seamless construction guarantees long life cycle.

catalogue number	total length	pack quantity
048.23.130	130 mm	1 piece
048.23.160	160 mm	1 piece



SCISSORS - *"general use" - "blunt/sharp tip"*

➤ Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel with straight form.

➤ Most commonly used scissors. Featured with a blunt/sharp tip and close shank.

➤ Robust and seamless construction guarantees long life cycle.

catalogue number	total length	pack quantity
048.24.130	130 mm	1 piece
048.24.160	160 mm	1 piece



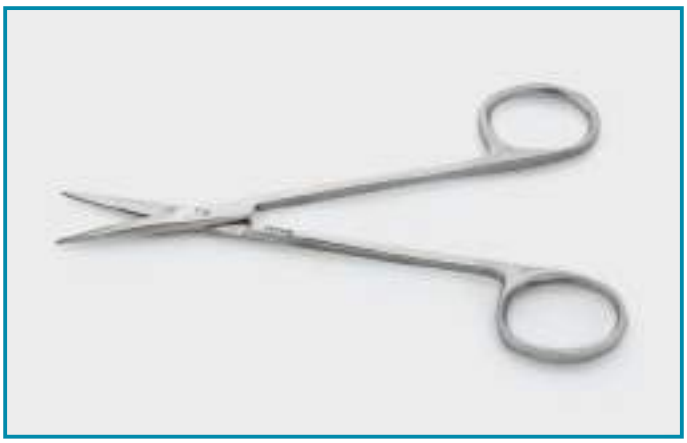
SCISSORS - *"general use"*

• Scissor part manufactured from high quality, chemical and corrosion resistant steel.

• Commonly used scissors for general applications.

• Featured with a straight and fine sharp point tips.

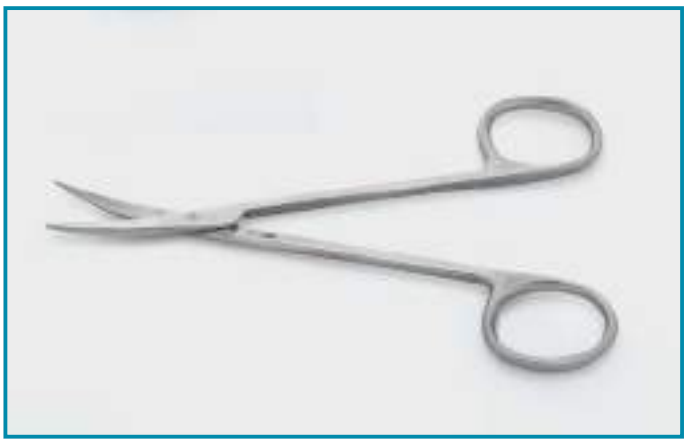
catalogue number	total length	pack quantity
048.30.130	130 mm	1 piece
048.30.160	160 mm	1 piece
048.30.200	200 mm	1 piece



SCISSORS - *"dissecting use" - "straight tip"*

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Most commonly used scissors for dissecting. Featured with a straight and fine sharp point tip.
- Robust and seamless construction guarantees long life cycle.

catalogue number	total length	pack quantity
048.25.130	130 mm	1 piece



SCISSORS - *"dissecting use" - "curved tip"*

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Most commonly used scissors for dissecting. Featured with a curved and fine sharp point tip.
- Robust and seamless construction guarantees long life cycle.

catalogue number	total length	pack quantity
048.26.130	130 mm	1 piece



SCISSORS - *"heavy duty"*

- Scissor part manufactured from high quality, chemical and corrosion resistant steel.
- Most commonly used scissor for cutting all materials even thin layer of metal sheets.
- Spring supported ergonomic plastic handle with safety lock offers easy, fast and safe use.

catalogue number	total length	pack quantity
048.31.001	185 mm	1 piece



SCISSORS - *"for hose cutting"*

- Offers a clean and sharp cut of all kinds of hoses with external diameter range 6 mm to 25 mm.
- The cutter blade is manufactured from stainless steel with two ends.
- If one cutting end gets blunt, the other side can be used.

catalogue number	pack quantity
052.08.002	1 piece



KNIVES

- Featured with very sharp stainless steel blade covered with ceramic layer.
- Ceramic layer guarantees corrosion and rust - free long life cycle.
- These knives are unbreakable and do not require resharpening.
- Light weight and ergonomic handle offer excellent grip option.

catalogue number	total length	blade length	pack quantity
048.40.001	220 mm	120 mm	1 piece
048.40.002	230 mm	130 mm	1 piece



CUTTERS

- Can be used as a cutter, as a safety knife suitable for detailed precise cutting.
- Blade is manufactured from stainless steel. Automatic blade retractor offers blade length adjustment by one hand. Blade can be stowed without any danger.
- Both models are featured with both a break off device. Large cutter is also featured with an auto-lock knob as additional safety.
- Light weight and ergonomic handle offer excellent grip option.

catalogue number	blade length	blade width	pack quantity
048.06.001	80 mm	9 mm	1 piece
048.06.002	100 mm	18 mm	1 piece



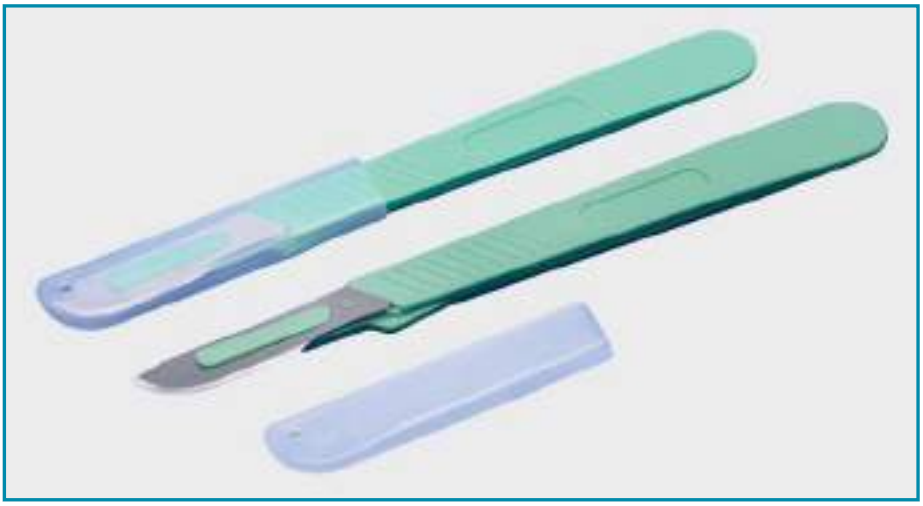
DISSECTING NEEDLES

- Needle parts are manufactured from stainless steel with sharp ends.
- Supplied as a set consisting of 3 needles:
  - dissecting needle, **straight**
  - dissecting needle, **bent**
  - dissecting needle, **lanceolated**

catalogue number	pack quantity
052.30.001	1 set

SCALPEL
"with safety cover"

- Single packed sterile scalpel featured with highest grade stainless steel cutting blade.
- Handle is manufactured from polypropylene with a soft grip option.
- The safety cover closes the blade part securely and prevents the unexpected cut risks.



catalogue number	total length	blade length	pack quantity
048.50.003	140 mm	40 mm	1 piece

SCALPEL HANDLES

- Manufactured from stainless steel with approximate length of 130 mm.
- Handle no: 1 carries blades size from 10 to 18. Handle no: 2 carries blade size from 18 to 24.
- Grids at the front part guarantees perfect control during usage.



catalogue number	handle no	total length	pack quantity
048.50.001	1	130 mm	1 piece
048.50.002	2	130 mm	1 piece



SCALPEL BLADE - *"no:10"*

- Manufactured from stainless steel and sterilised with gamma radiation.
- Suitable to be used with scalpel handle no: 1.

catalogue number	for handle	blade length	pack quantity
048.51.010	no:1	25 mm	100 pieces



SCALPEL BLADE - *"no:11"*

- Manufactured from stainless steel and sterilised with gamma radiation.
- Suitable to be used with scalpel handle no: 1.

catalogue number	for handle	blade length	pack quantity
048.51.011	no:1	20 mm	100 pieces



SCALPEL BLADE - *"no:21"*

- Manufactured from stainless steel and sterilised with gamma radiation.
- Suitable to be used with scalpel handle no: 2.

catalogue number	for handle	blade length	pack quantity
048.51.021	no:2	35 mm	100 pieces



DESICCATORS
"glass" - "non-vacuum"

- Manufactured thick, robust and heat resistant, durable borosilicate glass without vacuum stopcock.
- Excellent smooth grinded body and lid flanges guarantee airtight closure.
- Supplied with a porcelain perforated desiccator plate.



Excellent smooth grinded body and lid flanges guarantee airtight closure.

catalogue number	desiccator diameter	pack quantity
039.01.200	200 mm	1 piece
039.01.250	250 mm	1 piece
039.01.300	300 mm	1 piece



DESICCATORS
"glass" - "vacuum"

- Manufactured thick, robust and heat resistant, durable borosilicate glass with a vacuum stopcock.
- Featured with a 2-way high vacuum stopcock enabling consistent and uniform vacuum draw and release.
- Vacuum stopcock can hold maximum vacuum of 1 Torr more than 24 hours.
- Excellent smooth grinded body and lid flanges guarantee airtight closure.
- Supplied with a porcelain perforated desiccator plate.

catalogue number	desiccator diameter	pack quantity
039.02.200	200 mm	1 piece
039.02.250	250 mm	1 piece
039.02.300	300 mm	1 piece



DESICCATORS
"P.P & P.C" - "vacuum"

- Manufactured robust polypropylene base with transparent polycarbonate cover with a vacuum stopcock.
- Featured with a 3-way high vacuum stopcock enabling consistent and uniform vacuum draw and release.
- Vacuum stopcock can hold maximum vacuum of 1 Torr more than 24 hours.
- Silicone gasket between body and the lid ensures grease free, airtight closure.
- Supplied with a polypropylene perforated desiccator plate.

catalogue number	desiccator diameter	pack quantity
039.12.200	200 mm	1 piece
039.12.250	250 mm	1 piece
039.12.300	300 mm	1 piece







Various vacuum pumps can be selected from catalogue pages 152.



DESICCATOR LIDS
"glass" - "non-vacuum"

- Manufactured thick, robust and heat resistant, durable borosilicate glass without vacuum stopcock.
- Excellent smooth grinded body and lid flanges guarantee airtight closure.

catalogue number	lid diameter	pack quantity
039.06.200	200 mm	1 piece
039.06.250	250 mm	1 piece
039.06.300	300 mm	1 piece



DESICCATOR LIDS
"glass" - "vacuum"

- Manufactured thick, robust and heat resistant, durable borosilicate glass with a vacuum stopcock.
- Featured with a 2-way high vacuum stopcock enabling consistent and uniform vacuum draw and release.

catalogue number	lid diameter	pack quantity
039.07.200	200 mm	1 piece
039.07.250	250 mm	1 piece
039.07.300	300 mm	1 piece



DESICCATOR PLATES
"porcelain"

- Manufactured from best quality glazed porcelain. They perfectly fit the base of desiccator bodies.
- Featured with perforated holes for perfect heat transfer.

catalogue number	plate diameter	pack quantity
039.05.200	190 mm	1 piece
039.05.250	230 mm	1 piece
039.05.300	300 mm	1 piece

SILICA - GEL DESICCANT BEADS

- Silica-Gel beads are moisture absorbing self - indicating drying agents.
- Perfect substitude of classical desiccator moisture absorbents.
- Beads has a grain size variable from 1 to 3 mm. They are free from any heavy and environmentally compatible.
- Original orange color gradually turns to white as the gel absorbs moisture.
- Color change offers monitoring of the saturation level.
- Silica-Gel beads can be regenerated when heated at a temperature of maximum 120°C.
- The color turns back to original orange color.
- Packed as 1 kg in a sealed P.P bottle in order to prevent preabsorption of moisture.

catalogue number	packing specification
039.16.001	1 kg in P.P bottle


Before moisture absorbtion


After moisture absorbtion


After regeneration



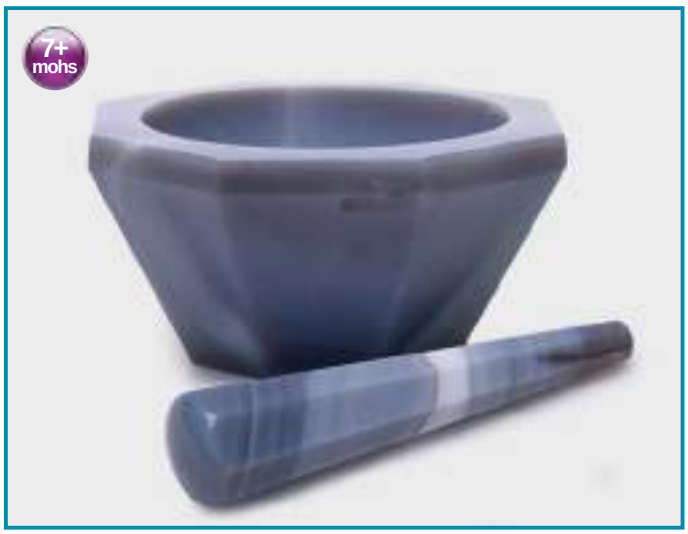


MORTARS - *"agate" - "standard form"*

- Manufactured from high quality, natural agate stone with standard depth.
- Hardness degree of 7-8 MOHS guarantees very good crushing resistance.
- Recommended for use contamination free crushing.
- Supplied with a pestle with relevant size to agate mortar.

catalogue number	volume	external diameter	internal diameter	height	pack quantity
038.07.050	9 ml	50 ± 3 mm	40 ± 3 mm	25 ± 3 mm	1 piece
038.07.075	22 ml	75 ± 3 mm	65 ± 3 mm	30 ± 3 mm	1 piece
038.07.100	50 ml	100 ± 3 mm	90 ± 3 mm	40 ± 3 mm	1 piece
038.07.125	120 ml	125 ± 3 mm	110 ± 3 mm	45 ± 3 mm	1 piece
038.07.150	270 ml	150 ± 3 mm	130 ± 3 mm	55 ± 3 mm	1 piece





MORTARS - *"agate" - "deep form"*

- Manufactured from high quality, natural agate stone with extra depth compared to standard deep mortars.
- Hardness degree of 7-8 MOHS guarantees very good crushing resistance.
- Recommended for use contamination free crushing.
- Supplied with a pestle with relevant size to agate mortar.

catalogue number	volume	external diameter	internal diameter	height	pack quantity
038.09.060	25 ml	60 ± 3 mm	50 ± 3 mm	35 ± 3 mm	1 piece
038.09.070	35 ml	70 ± 3 mm	55 ± 3 mm	40 ± 3 mm	1 piece
038.09.080	60 ml	80 ± 3 mm	65 ± 3 mm	45 ± 3 mm	1 piece
038.09.100	100 ml	100 ± 3 mm	75 ± 3 mm	55 ± 3 mm	1 piece
038.09.120	165 ml	120 ± 3 mm	100 ± 3 mm	60 ± 3 mm	1 piece

MORTARS - *"agate" - "standard form" - "black"*

- Manufactured from high quality, natural black agate stone with standard depth.
- Hardness degree of 6-7 MOHS guarantees very good crushing resistance.
- Recommended for use contamination free crushing.
- Supplied with a pestle with relevant size to agate mortar.

catalogue number	volume	external diameter	internal diameter	height	pack quantity
038.18.065	25 ml	65 ± 3 mm	55 ± 3 mm	30 ± 3 mm	1 piece
038.18.085	70 ml	85 ± 3 mm	80 ± 3 mm	35 ± 3 mm	1 piece
038.18.110	140 ml	115 ± 3 mm	100 ± 3 mm	45 ± 3 mm	1 piece
038.18.125	210 ml	125 ± 3 mm	115 ± 3 mm	50 ± 3 mm	1 piece
038.18.150	350 ml	150 ± 3 mm	140 ± 3 mm	55 ± 3 mm	1 piece



MORTARS - *"alsint" - "standard form"*

- Manufactured from extremely chemical resistant pure 99,7 % aluminium oxide (alsint).
- Hardness degree of 9+ MOHS guarantees excellent crushing resistance.
- Recommended for use absolute contamination free crushing.
- Supplied with a pestle with relevant size to alsint mortar.

catalogue number	volume	external diameter	internal diameter	height	pack quantity
038.08.050	7 ml	50 mm	37 mm	26 mm	1 piece
038.08.075	30 ml	75 mm	65 mm	40 mm	1 piece
038.08.100	80 ml	100 mm	85 mm	48 mm	1 piece
038.08.125	120 ml	125 mm	110 mm	70 mm	1 piece
038.08.150	150 ml	150 mm	130 mm	75 mm	1 piece



MORTARS - *"porcelain" - "standard form"*

- Manufactured from high quality, glazed porcelain according to DIN 12906 standard.
- Hardness degree of 5+ MOHS guarantees fairly good crushing resistance.
- Grinding chamber made from unglazed porcelain provides perfect hold of the samples during crushing without splattering.
- Supplied without pestle. Please select the appropriate pestle.

catalogue number	volume	external diameter	internal diameter	height	pack quantity
038.02.065	70 ml	80 mm	65 mm	40 mm	1 piece
038.02.090	170 ml	105 mm	90 mm	55 mm	1 piece
038.02.130	400 ml	150 mm	130 mm	70 mm	1 piece
038.02.150	700 ml	175 mm	150 mm	70 mm	1 piece
038.02.180	1000 ml	207 mm	180 mm	80 mm	1 piece



PESTLES - *"porcelain" - "standard form"*

- Manufactured from high quality, glazed porcelain according to DIN 12906 standard. Hardness degree of 5 MOHS guarantees fairly good crushing resistance.
- Grinding head made from unglazed porcelain for crushing without splattering.

catalogue number	head diameter	total length	pack quantity
038.03.115	24 mm	115 mm	1 piece
038.03.135	30 mm	135 mm	1 piece
038.03.150	36 mm	150 mm	1 piece
038.03.175	42 mm	175 mm	1 piece
038.03.210	55 mm	210 mm	1 piece



PESTLES - *"agate" - "standard form" - "black"*

- Manufactured from high quality, natural black agate stone.
- Hardness degree of 6-7 MOHS guarantees very good crushing resistance.

catalogue number	total length	pack quantity
038.04.065	65 ± 3 mm	1 piece
038.04.075	75 ± 3 mm	1 piece
038.04.085	85 ± 3 mm	1 piece
038.04.110	110 ± 3 mm	1 piece
038.04.125	125 ± 3 mm	1 piece
038.04.150	150 ± 3 mm	1 piece





EVAPORATING DISHES
"porcelain" - "flat base"

➤ Manufactured from high quality, glazed porcelain according to DIN 12903 standard.

➤ In order to prevent breakage controlled cooling and preventing use with direct flame is recommended.

catalogue number	volume	external diameter	height	pack quantity
038.11.060	20 ml	63 mm	13 mm	6 pieces
038.11.080	40 ml	80 mm	20 mm	6 pieces
038.11.100	80 ml	110 mm	25 mm	6 pieces
038.11.125	270 ml	125 mm	27 mm	6 pieces
038.11.160	450 ml	160 mm	35 mm	6 pieces

EVAPORATING DISHES
"porcelain" - "round base"

➤ Manufactured from high quality, glazed porcelain according to DIN 12903 standard.

➤ In order to prevent breakage controlled cooling and preventing use with direct flame is recommended.

catalogue number	volume	external diameter	height	pack quantity
038.12.060	40 ml	60 mm	25 mm	6 pieces
038.12.080	75 ml	80 mm	30 mm	6 pieces
038.12.100	180 ml	100 mm	45 mm	6 pieces
038.12.125	310 ml	125 mm	48 mm	6 pieces
038.12.160	640 ml	160 mm	58 mm	6 pieces



EVAPORATING DISHES
"stainless steel" - "round base"

➤ Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.

➤ Robust and seamless construction guarantees long life cycle.

➤ Smooth polished surfaces provide easy cleaning.

catalogue number	volume	external diameter	height	pack quantity
038.14.060	50 ml	60 mm	30 mm	1 piece
038.14.080	125 ml	80 mm	40 mm	1 piece
038.14.100	250 ml	100 mm	55 mm	1 piece



TONG - *"for evaporating dishes"*

➤ Manufactured from high quality, corrosion resistant chromated steel for holding dishes in the most secure way.

➤ Unique design with grabbing jaws enables easy and safe holding of dishes preventing possible breakage.

catalogue number	total length	pack quantity
038.05.001	275 mm	1 piece



EVAPORATING DISHES
"quartz" - "round base"

➤ Manufactured quartz glass resistant to high temperature 1050°C.

➤ Since the production is done manually at 1700°C, some irregularities at the physical outlook might occur.

catalogue number	volume	external diameter	height	pack quantity
038.16.060	30 ml	60 mm	34 mm	1 piece
038.16.080	150 ml	80 mm	45 mm	1 piece
038.16.100	200 ml	100 mm	40 mm	1 piece





CRYSTALLIZATION DISHES
"st. steel" - "flat base"

➤ Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.

➤ Robust and seamless construction guarantees long life cycle. Smooth polished surfaces provide easy cleaning.

catalogue number	volume	external diameter	height	pack quantity
049.08.070	100 ml	70 mm	35 mm	1 piece
049.08.085	150 ml	85 mm	45 mm	1 piece
049.08.110	400 ml	110 mm	55 mm	1 piece

CRYSTALLIZATION DISHES
"glass" - "flat base"

➤ Manufactured from heat resistant, durable borosilicate glass according to DIN 12338 standard.

➤ In order to prevent breakage controlled cooling and preventing use with direct flame is recommended.

catalogue number	volume	external diameter	height	pack quantity
049.05.060	85 ml	60 mm	35 mm	1 piece
049.05.100	110 ml	70 mm	40 mm	1 piece
049.05.150	160 ml	80 mm	45 mm	1 piece
049.05.300	280 ml	95 mm	55 mm	1 piece
049.05.900	860 ml	140 mm	75 mm	1 piece



CRUCIBLES *"porcelain" - "low form"*

- Manufactured from high quality, glazed porcelain according to DIN 12904 standard.
- **In order to prevent breakage controlled cooling and preventing use with direct flame is recommended.**
- Supplied without lid. Please select the appropriate size from lid options.

catalogue number	external diameter	height	pack quantity
038.14.L30	30 mm	18 mm	6 pieces
038.14.L35	35 mm	23 mm	6 pieces
038.14.L40	40 mm	25 mm	6 pieces
038.14.L45	45 mm	29 mm	6 pieces
038.14.L50	50 mm	32 mm	6 pieces
038.14.L60	60 mm	38 mm	6 pieces
038.14.L70	70 mm	48 mm	6 pieces



CRUCIBLES *"porcelain" - "medium form"*

- Manufactured from high quality, glazed porcelain according to DIN 12904 standard.
- **In order to prevent breakage controlled cooling and preventing use with direct flame is recommended.**
- Supplied without lid. Please select the appropriate size from lid options.

catalogue number	external diameter	height	pack quantity
038.14.M35	35 mm	28 mm	6 pieces
038.14.M40	40 mm	32 mm	6 pieces
038.14.M45	45 mm	36 mm	6 pieces
038.14.M50	50 mm	40 mm	6 pieces
038.14.M60	60 mm	50 mm	6 pieces
038.14.M70	70 mm	60 mm	6 pieces
038.14.M82	82 mm	65 mm	6 pieces



CRUCIBLES *"porcelain" - "high form"*

- Manufactured from high quality, glazed porcelain according to DIN 12904 standard.
- **In order to prevent breakage controlled cooling and preventing use with direct flame is recommended.**
- Supplied without lid. Please select the appropriate size from lid options.

catalogue number	external diameter	height	pack quantity
038.14.H30	30 mm	38 mm	6 pieces
038.14.H35	35 mm	44 mm	6 pieces
038.14.H40	40 mm	49 mm	6 pieces
038.14.H46	46 mm	58 mm	6 pieces
038.14.H51	51 mm	65 mm	6 pieces
038.14.H60	60 mm	79 mm	6 pieces



CRUCIBLE LIDS - *"porcelain"*

- Manufactured from high quality, glazed porcelain according to DIN 12904 standard.
- **In order to prevent breakage not recommended to be used under direct flame.**

catalogue number	external diameter	pack quantity
038.19.035	35 mm	6 pieces
038.19.043	43 mm	6 pieces
038.19.046	46 mm	6 pieces
038.19.052	52 mm	6 pieces
038.19.060	60 mm	6 pieces
038.19.068	68 mm	6 pieces



TONGS - *"for crucibles"*

- Manufactured from high quality, corrosion resistant chromated steel for holding crucibles in the most secure way.
- Unique design with grabbing jaws enables easy and safe holding of crucibles preventing possible breakage.

catalogue number	total length	pack quantity
038.06.250	250 mm	1 piece
038.06.300	300 mm	1 piece
038.06.400	400 mm	1 piece



CRUCIBLES
"quartz" - "medium form"

- Manufactured quartz glass resistant to high temperature 1050°C.
- Since the production is done manually at 1700°C, some irregularities at the physical outlook might occur.

catalogue number	external diameter	height	pack quantity
038.13.Q15	40 mm	32 mm	1 piece
038.13.Q24	50 mm	40 mm	1 piece
038.13.Q40	60 mm	48 mm	1 piece



CRUCIBLES
"alsint" - "wide & tall form"

- Manufactured from extremely chemical resistant pure 99,7 % aluminium oxide (alsint) resistant to 1700°C.
- In order to prevent breakage controlled cooling and preventing use with direct flame is recommended.

catalogue number	external diameter	height	pack quantity
038.13.A30	30 mm	24 mm	1 piece
038.13.A41	41 mm	37 mm	1 piece
038.13.A48	48 mm	41 mm	1 piece
038.13.A54	54 mm	50 mm	1 piece
038.13.A60	60 mm	50 mm	1 piece
038.13.A66	66 mm	56 mm	1 piece



CRUCIBLES
"st. steel" - "medium form"

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Robust and seamless construction guarantees long life cycle. Smooth polished surfaces provides fast and easy cleaning.

catalogue number	external diameter	height	pack quantity
038.13.S35	44 mm	35 mm	1 piece
038.13.S45	51 mm	45 mm	1 piece
038.13.S50	63 mm	50 mm	1 piece



COMBUSTION BOATS
"porcelain"

- Manufactured from high quality, glazed porcelain.
- In order to prevent breakage controlled cooling and preventing use with direct flame is recommended.

catalogue number	dimensions	height	pack quantity
038.17.001	88 x 12 mm	10 mm	10 pieces



INCINERATING DISHES
"porcelain" - "cylindrical"

- Manufactured from high quality, glazed porcelain.
- In order to prevent breakage controlled cooling and preventing use with direct flame is recommended.

catalogue number	internal diameter	height	pack quantity
038.21.040	40 mm	21 mm	1 piece
038.21.050	50 mm	25 mm	1 piece
038.21.060	60 mm	31 mm	1 piece



INCINERATING DISHES
"porcelain" - "rectangular"

- Manufactured from high quality, glazed porcelain.
- In order to prevent breakage controlled cooling and preventing use with direct flame is recommended.

catalogue number	dimensions	height	pack quantity
038.20.025	50 x 25 mm	10 mm	1 piece
038.20.046	70 x 46 mm	13 mm	1 piece
038.20.055	100 x 55 mm	16 mm	1 piece



BUNSEN BURNER
"standard type"

- Manufactured from steel and chromated brass. Most common used economical bunsen burner with flame adjustment option.
- Due to the compact design can be used under standard height tripods.
- **Can be used with all gases such as neutral gas, butane gas and coal gas.**
- Offers practical control of flame from very slow heating to rapid boiling with an adjustable air and gas regulation ring.
- Precise flame adjustment is guaranteed by a screw driven gas control knob.

catalogue number	pack quantity
050.01.001	1 piece



BUNSEN BURNER
"advanced type"

- Manufactured from steel and chromated brass. Preferably used if higher heating capacity is required.
- Due to the compact design can be used under standard height tripods.
- **Can be used with all gases such as neutral gas, butane gas and coal gas.**
- Offers practical control of flame from very slow heating to rapid boiling with an adjustable air and gas regulation ring.
- Easy and precise flame adjustment is guaranteed by a screw driven gas control knob.

catalogue number	pack quantity
050.01.002	1 piece



BUNSEN BURNER
"meker type"

- Manufactured from steel and chromated brass. Most Suitable for very high heating capacity up to 1700°C is required.
- Perforated plate vent with 30 mm diameter guarantees high, evenly distributed and stable flame.
- **Can be used with all gases such as neutral gas, butane gas and coal gas.**
- Offers practical control of flame from very slow heating to rapid boiling with an adjustable air and gas regulation ring.
- Precise flame adjustment is guaranteed by a screw driven gas control knob.

catalogue number	pack quantity
050.01.003	1 piece



BUNSEN BURNER STABILIZER

- Due to the torsion and twisting effect of the bunsen burner hoses there is always a tilt over risk for bunsen burners.
- Bunsen burner stabilizer provides a very stable and robust additional base and holds the attached bunsen burner firmly avoiding above mentioned risk.
- Manufactured from spray coated heavy cast iron. The nest perfectly fits to the bases of bunsen burners with **catalogue no: 050.01.002** and **050.01.003**.
- First insert the bunsen burner into the stabilizer nest. Then stabilize the bunsen burner by tightly fixing the provided screw tightly.



First insert the bunsen burner into the stabilizer nest.



Then stabilize the bunsen burner by tightly fixing the provided screw.

catalogue number	pack quantity
050.09.001	1 piece



BUNSEN BURNER *"cartridge type"*

➤ High performance, multi purpose and portable bunsen burner offers practical and convenient solutions where connection to a gas pipe line is not existing.

➤ Offers precise and practical control of flame from very slow heating to rapid boiling.

➤ Precise flame adjustment is guaranteed by a screw driven gas control knob.

➤ Perforated design of the gas vent acts as a stabilizer allowing the gas to emerge at low velocity acting as a pilot for the regular flame.

➤ Supplied without gas cartridge. Kindly order gas cartridge separately.

catalogue number	pack quantity
050.01.004	1 piece



BLOW LAMP - *"cartridge type"*

➤ High performance, multi purpose and portable blow lamp offers practical and convenient solutions where connection to a gas pipe line is not existing.

➤ Offers precise and practical control of flame from very slow heating to rapid boiling.



➤ Precise flame adjustment is guaranteed by a screw driven gas control knob.

➤ Supplied without gas cartridge. Kindly order gas cartridge separately.

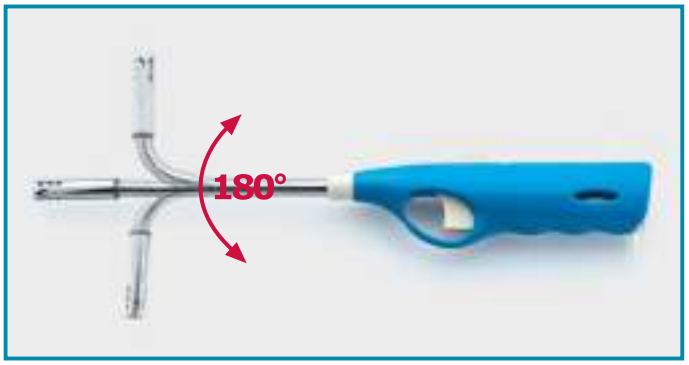
catalogue number	pack quantity
050.02.001	1 piece

GAS CARTRIDGE

➤ Gas cartridge perfectly fits to the bunsen burner and also blow lamp.

catalogue number	pack quantity
050.03.001	1 piece





HOSES - *"for bunser burners"*

➤ Manufactured from extra thick walled rubber. Specially designed to be used with bunsen burners.

➤ Reinforced ends fit perfectly to the bunsen burner at one side and the gas tap at the other side assuring gas leakage free connection.

catalogue number	hose length	pack quantity
050.08.075	75 cm	1 piece
050.08.100	100 cm	1 piece

LIGHTER - *"refillable"*

➤ Perfect and practical tool to ignite the bunsen burners and flame lamp. Long and flexible gas tube can be bend 180° or more enabling ignition from any desired position but always from a safe distance from the flame.

➤ Refillable from the bottom part. Featured with a safety button.

catalogue number	gas tube length	pack quantity
050.10.001	150 mm	1 piece



TUBINGS - *"rubber" - "standard type"*

- Manufactured from natural rubber with standard thickness of durometer 45 A.
- Guarantees excellent chemical and temperature resistance between -25°C to +70°C.

catalogue number	internal diameter	external diameter	wall thickness	pack quantity
052.10.001	5,0 mm	8,0 mm	1,5 mm	1 meter
052.10.002	5,0 mm	9,0 mm	2,0 mm	1 meter
052.10.003	6,0 mm	9,0 mm	1,5 mm	1 meter
052.10.004	6,0 mm	10,0 mm	2,0 mm	1 meter
052.10.005	7,0 mm	11,0 mm	2,0 mm	1 meter
052.10.006	8,0 mm	12,0 mm	2,0 mm	1 meter
052.10.007	10,0 mm	14,0 mm	2,0 mm	1 meter
052.10.008	12,0 mm	16,0 mm	2,0 mm	1 meter



TUBINGS - *"rubber" - "vacuum type"*

- Manufactured from natural rubber with thickness required by vacuum applications with durometer 45 A.
- Guarantees excellent chemical and temperature resistance between -25°C to +70°C.

catalogue number	internal diameter	external diameter	wall thickness	pack quantity
052.11.001	6,0 mm	16,0 mm	5,0 mm	1 meter
052.11.002	7,0 mm	17,0 mm	5,0 mm	1 meter
052.11.003	8,0 mm	18,0 mm	5,0 mm	1 meter
052.11.004	10,0 mm	20,0 mm	5,0 mm	1 meter



TUBINGS - *"silicone"*

- Manufactured from natural silicone with standard thickness of durometer 45 A.
- Guarantees excellent chemical and temperature resistance between -60°C to +170°C.

catalogue number	internal diameter	external diameter	wall thickness	pack quantity
052.12.001	3,0 mm	6,0 mm	1,5 mm	1 meter
052.12.002	4,0 mm	7,0 mm	1,5 mm	1 meter
052.12.003	5,0 mm	8,0 mm	1,5 mm	1 meter
052.12.004	6,0 mm	10,0 mm	2,0 mm	1 meter
052.12.005	7,0 mm	11,0 mm	2,0 mm	1 meter
052.12.006	8,0 mm	12,0 mm	2,0 mm	1 meter
052.12.007	9,0 mm	13,0 mm	2,0 mm	1 meter
052.12.008	10,0 mm	14,0 mm	2,0 mm	1 meter



TUBINGS - *"PVC" - "reinforced type"*

- Manufactured with durometer 77 A from terylene mesh reinforced PVC providing extra strenght.
- Guarantees excellent chemical and temperature resistance between -20°C to +80°C.

catalogue number	internal diameter	external diameter	wall thickness	pack quantity
052.14.001	6,0 mm	12,0 mm	3,0 mm	1 meter
052.14.002	8,0 mm	14,0 mm	3,0 mm	1 meter
052.14.003	10,0 mm	16,0 mm	3,0 mm	1 meter

TUBINGS - *"PTFE" - standard type"*



- Manufactured from chemicaly inert PTFE with excellent mechanical strength.
- Guarantees excellent chemical and temperature resistance between -200°C to +280°C.

catalogue number	internal diameter	external diameter	wall thickness	pack quantity
052.13.001	0,5 mm	1,0 mm	0,25 mm	1 meter
052.13.002	1,0 mm	1,5 mm	0,25 mm	1 meter
052.13.003	1,0 mm	2,0 mm	0,50 mm	1 meter
052.13.004	1,5 mm	3,5 mm	1,00 mm	1 meter
052.13.005	2,0 mm	4,0 mm	1,00 mm	1 meter
052.13.006	3,0 mm	5,0 mm	1,00 mm	1 meter
052.13.007	4,0 mm	6,0 mm	1,00 mm	1 meter
052.13.008	6,0 mm	8,0 mm	1,00 mm	1 meter
052.13.009	8,0 mm	10,0 mm	1,00 mm	1 meter

TUBINGS - *"TYGON"*



- Manufactured from specially formulated FDA approved and phatalate and BPA free material.
- Guarantees excellent chemical and temperature resistance. Maximum operating temperature is 74°C.
- Can also be used for food contact applications.

catalogue number	internal diameter	external diameter	wall thickness	pack quantity
052.09.001	0,8 mm	4,2 mm	1,7 mm	1 meter
052.09.002	1,6 mm	5,0 mm	1,7 mm	1 meter
052.09.003	2,4 mm	5,6 mm	1,6 mm	1 meter
052.09.004	3,1 mm	6,3 mm	1,6 mm	1 meter
052.09.005	4,8 mm	8,0 mm	1,6 mm	1 meter
052.09.006	6,4 mm	9,6 mm	1,6 mm	1 meter

SCISSOR - *"for hose cutting"*



- Offers a clean and sharp cut of all kinds of hoses with external diameter range 6 mm to 25 mm.
- The cutter blade is manufactured from stainless steel with two ends.
- If one cutting end gets blunt the other side can be used.

Other technical specifications can be seen at catalogue page 93.



Offers a clean and sharp cut of all kinds of hoses with external diameter range 6 mm to 25 mm.







TUBING CLAMPS - *"click -lock"*

- Manufactured with a stainless steel clamp and HIPS pressure plate for reliable and precise flow control of liquids and gases.
- Can be used wherever the flow rates at tubings with liquids and gases need to be regulated or stopped.
- The micro screw system enables a fine and stepless adjusted flow control.
- The clamp can be opened and closed at any position without tiresome screwing.
- The unique construction enables easy mount of the clamp even when the tubing is already connected to a system.
- Adjustable pressure plate compress the tubing over a wide area against the stainless hook in order to prevent damages.

max. hose diameter	blue clamps catalogue no	red clamps catalogue no	orange clamps catalogue no	pack quantity
up to 10 mm	052.15.010B	052.15.010R	052.15.010O	1 piece
up to 15 mm	052.15.015B	052.15.015R	052.15.015O	1 piece
up to 20 mm	052.15.020B	052.15.020R	052.15.020O	1 piece



Open the clamp screws



Attach the clamp easily



"Click" the clamp



Regulate the flow

TUBING CLAMPS - *"keck"*



- Manufactured from thermoplastic polyester (PBT) for reliable and precise flow control of liquids and gases.
- Can be used wherever the flow rates at tubings with liquids and gases need to be regulated or stopped.
- The micro screw system enables a fine and stepless adjusted flow control. Variably adjustable up to the total closure of the tubing.
- Can be opened and closed at any position by one hand without tiresome screwing.
- The unique construction enables easy mount of the clamp even when the tubing is already connected to a system.
- Different color options offer visual sorting and easy organising of different clamps.

catalogue number	operational tube diameter	clamp color	pack quantity
052.06.006	6 mm	orange	1 piece
052.06.010	10 mm	blue	1 piece
052.06.014	14 mm	red	1 piece


Move the micro screw upwards till the end.


Insert the tubing into the "keck" tubing clamp.


Regulate the flow by moving the micro screw downwards.

TUBING CLAMPS - *"hoffman"*



- Manufactured from chrome plated steel for reliable and precise flow control of liquids and gases.
- Can be used wherever the flow rates at tubings with liquids and gases need to be regulated or stopped.
- The swing-open hinged bottom bar enables a fine and stepless adjusted flow control. Variably adjustable up to the total closure of the tubing.
- The unique construction enables easy mount of the clamp even when the tubing is already connected to a system.

catalogue number	for tubes	pack quantity
052.17.012	12	1 piece
052.17.020	20	1 piece
052.17.030	30	1 piece



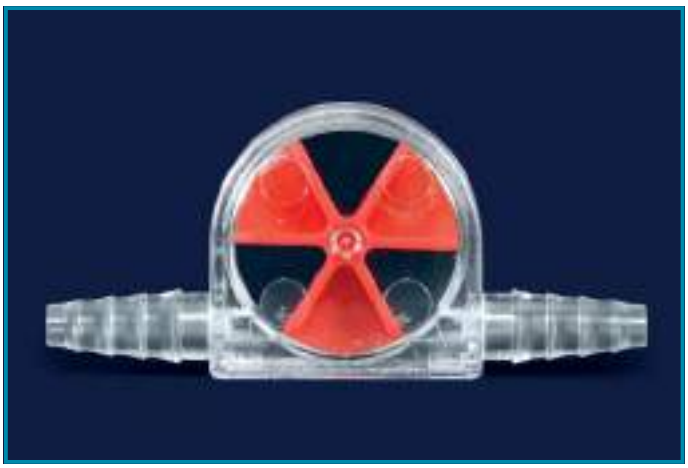
TUBING CLAMPS - *"worm drive screw"*

- Ideal clamps for safe fastening and securing tubings on pipe systems or to stopcocks.
- Manufactured from chrome steel according to DIN 3017 standard.

catalogue number	for hose Ø (mm)	pack quantity
052.16.012	8-12	1 piece
052.16.016	10-16	1 piece
052.16.020	12-20	1 piece
052.16.025	16-25	1 piece







VALVE - *"non-return"*

➤ Manufactured from polypropylene for usage with tubing connections and vacuum systems.

➤ Prevents water back flow when the pressure declines. Useful for any tubing system and vacuum line.

➤ Max. safe working pressure at ambient temperature: 2,0 bar. Min. safe working pressure at ambient temperature: 0,07 bar.

catalogue number	nominal tube diameter	pack quantity
040.10.005	8 - 11 mm	1 piece



FLOW INDICATOR

➤ Manufactured from PMP for precise optical indication of the flow. Can resist max 2 bar pressure.

➤ Can be used with tubings of 6 to 11 mm internal diameter.

➤ For optimum performance the minimum flow rate of 50 ml/ minute (vertically) and 140 ml / minute (horizontally) is required.

➤ Functions in both directions and can be mounted with any angle.

catalogue number	pack quantity
052.18.001	1 piece

TUBING SELECTOR

➤ Manufactured from ABS for quick selection and easy of the required tubings.

➤ One side of the tube selector enables selection of inner diameters of tubings starting from 1 mm to 25 mm.

➤ The other side is for selection of outer diameters of tubings starting from 1,5 mm to 21 mm.

➤ **Includes following inside diameter gauges.**

1.0 mm - 2.0 mm - 2,5 mm - 3.0 mm - 4.0 mm - 4,5 mm-5.0 mm - 6.0 mm - 7.0 mm - 8.0 mm - 9.0 mm - 9,5 mm-10.0 mm - 11.0 mm - 12.0 mm - 13.0 mm - 14.0 mm - 15.0 mm - 16.0 mm - 17.0 mm - 18.0 mm - 19.0 mm - 20.0 mm - 21.0 mm - 22.0 mm - 25.0 mm.

➤ **Includes following outside diameter gauges:**

1,5 mm - 2.0 mm - 2,5 mm - 3.0 mm - 4.0 mm - 5.0 mm - 5,5 mm - 6.0 mm - 7.0 mm - 8.0 mm - 9.0 mm - 10.0 mm-11.0 mm - 12.0 mm - 13.0 mm - 14.0 mm - 15.0 mm - 16.0 mm - 17.0 mm - 18.0 mm - 21.0 mm.

catalogue number	dimensions	pack quantity
052.08.001	92x166x12 mm	1 piece



TUBING CONNECTOR - *"twin end"*

- Manufactured from clear polypropylene for safe connection of tubings.
- Ideal to connect the tubings with either same or close inner diameters.

catalogue number	for tubing inside dia.	length	pack quantity
052.20.003	3 - 5 mm	47 mm	1 piece
052.20.006	6 - 10 mm	54 mm	1 piece
052.20.009	9 - 13 mm	56 mm	1 piece



TUBING CONNECTOR - *"different end"*

- Manufactured from transparent polypropylene.
- Straight form, ideal to connect tubings with different inside diameter.

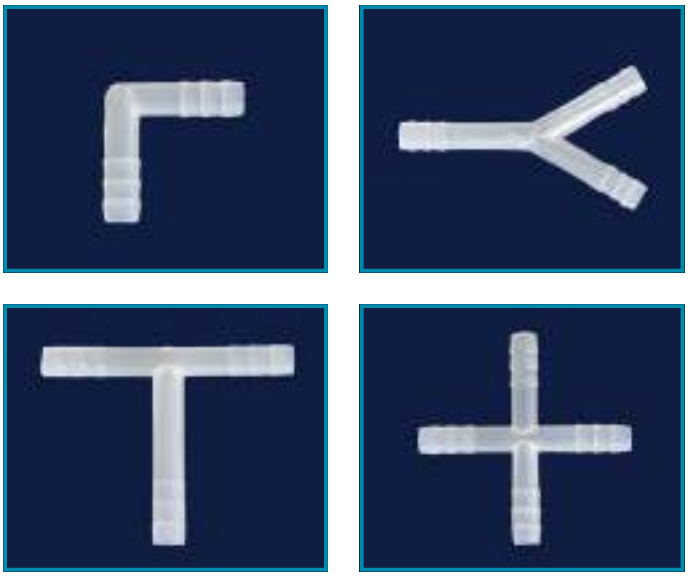
catalogue number	for tubing inside dia.	length	pack quantity
052.21.003	3 - 5 mm / 6 - 10 mm	55 mm	1 piece
052.21.006	6 - 10 mm / 9 - 13 mm	55 mm	1 piece
052.21.009	7 - 10 mm / 9 - 13 mm	60 mm	1 piece

TUBE CONNECTORS - *"L" - "Y" - "T" - "X"*

- Manufactured from clear polypropylene for safe connection of tubings with exactly same inner diameter.
- 4 available models provide excellent, leak-proof and multi-functional connection.

ID hose diameters	"L" model catalogue no	"Y" model catalogue no	pack quantity
6 mm	052.22.006	052.23.006	1 piece
8 mm	052.22.008	052.23.008	1 piece
10 mm	052.22.010	052.23.010	1 piece

ID hose diameters	"T" model catalogue no	"X" model catalogue no	pack quantity
6 mm	052.24.006	052.25.006	1 piece
8 mm	052.24.008	052.25.008	1 piece
10 mm	052.24.010	052.25.010	1 piece





STOPCOCKS
"P.P" - "multi-way"

- Manufactured from polypropylene for safe connection of tubings.
- 2 way stopcock is ideal for flow control by releasing or blocking the flow.
- 3 way stopcock in addition to above features also diverts the direction of the flow.

catalogue number	model	pack quantity
055.32.001	2 way	1 piece
055.32.002	3 way	1 piece





STOPPERS
"rubber"

➤ Manufactured from additive free, best quality natural rubber according to DIN 12871 standard with durometer 40 A.

➤ Guarantees excellent chemical and temperature resistance between -25°C to +70°C.

catalogue number	bottom Ø mm	top Ø mm	height mm	pack quantity
051.20.001	3,5	6,5	15,0	10 pcs.
051.20.002	5,0	9,0	20,0	10 pcs.
051.20.003	8,0	12,0	20,0	10 pcs.
051.20.004	10,5	14,5	20,0	10 pcs.
051.20.005	12,5	16,5	20,0	10 pcs.
051.20.006	14,0	18,0	20,0	10 pcs.
051.20.007	17,0	22,0	25,0	10 pcs.
051.20.008	18,0	24,0	30,0	10 pcs.
051.20.009	21,0	27,0	30,0	10 pcs.
051.20.010	23,0	29,0	30,0	10 pcs.
051.20.011	26,0	32,0	30,0	10 pcs.
051.20.012	29,0	35,0	30,0	10 pcs.
051.20.013	31,0	38,0	35,0	10 pcs.
051.20.014	36,0	44,0	40,0	10 pcs.
051.20.015	41,0	49,0	40,0	6 pcs.
051.20.016	47,0	55,0	40,0	6 pcs.
051.20.017	50,5	59,5	45,0	6 pcs.
051.20.018	56,0	65,0	45,0	6 pcs.
051.20.019	60,0	70,0	50,0	6 pcs.
051.20.020	64,5	75,5	55,0	3 pcs.
051.20.021	71,0	83,0	60,0	3 pcs.
051.20.022	79,0	92,0	65,0	3 pcs.



STOPPERS
"silicone"

➤ Manufactured from chemically inert, autoclavable, best quality natural silicone according to DIN 12871 standard with durometer 50 A.

➤ Guarantees excellent chemical and temperature resistance between -60°C to +170°C.

catalogue number	bottom Ø mm	top Ø mm	height mm	pack quantity
051.22.001	3,5	6,5	15,0	10 pcs.
051.22.002	5,0	9,0	20,0	10 pcs.
051.22.003	8,0	12,0	20,0	10 pcs.
051.22.004	10,5	14,5	20,0	10 pcs.
051.22.005	12,5	16,5	20,0	10 pcs.
051.22.006	14,0	18,0	20,0	10 pcs.
051.22.007	17,0	22,0	25,0	10 pcs.
051.22.008	18,0	24,0	30,0	10 pcs.
051.22.009	21,0	27,0	30,0	10 pcs.
051.22.010	23,0	29,0	30,0	10 pcs.
051.22.011	26,0	32,0	30,0	10 pcs.
051.22.012	29,0	35,0	30,0	10 pcs.
051.22.013	31,0	38,0	35,0	10 pcs.
051.22.014	36,0	44,0	40,0	10 pcs.
051.22.015	41,0	49,0	40,0	6 pcs.
051.22.016	47,0	55,0	40,0	6 pcs.
051.22.017	50,5	59,5	45,0	6 pcs.
051.22.018	56,0	65,0	45,0	6 pcs.
051.22.019	60,0	70,0	50,0	6 pcs.
051.22.020	64,5	75,5	55,0	3 pcs.
051.22.021	71,0	83,0	60,0	3 pcs.
051.22.022	79,0	92,0	65,0	3 pcs.



STOPPERS
"cork"

➤ Manufactured from non-porous, additive free, best quality natural cork according to DIN 12871 standard dimensions.

➤ Offers multi advantages with their light weight yet robust construction. Can be easily drilled.

catalogue number	bottom Ø mm	top Ø mm	height mm	pack quantity
051.23.001	3,5	6,5	15,0	10 pcs.
051.23.002	5,0	9,0	20,0	10 pcs.
051.23.003	8,0	12,0	20,0	10 pcs.
051.23.004	10,5	14,5	20,0	10 pcs.
051.23.005	12,5	16,5	20,0	10 pcs.
051.23.006	14,0	18,0	20,0	10 pcs.
051.23.007	17,0	22,0	25,0	10 pcs.
051.23.008	18,0	24,0	30,0	10 pcs.
051.23.009	21,0	27,0	30,0	10 pcs.
051.23.010	23,0	29,0	30,0	10 pcs.
051.23.011	26,0	32,0	30,0	10 pcs.
051.23.012	29,0	35,0	30,0	10 pcs.
051.23.013	31,0	38,0	35,0	10 pcs.
051.23.014	36,0	44,0	40,0	10 pcs.
051.23.015	41,0	49,0	40,0	10 pcs.
051.23.016	47,0	55,0	40,0	10 pcs.
051.23.017	50,5	59,5	45,0	10 pcs.
051.23.018	56,0	65,0	45,0	10 pcs.
051.23.019	60,0	70,0	50,0	10 pcs.
051.23.020	64,5	75,5	55,0	10 pcs.
051.23.021	71,0	83,0	60,0	10 pcs.
051.23.022	79,0	92,0	65,0	10 pcs.



STOPPERS
"rubber" - "drilled"

- Manufactured from additive free, best quality natural rubber according to DIN 12871 standard with durometer 40 A.
- Guarantees excellent chemical and temperature resistance between -25°C to +70°C.
- The drilled hole offers labour and time saving applications.

catalogue number	bottom Ø mm	top Ø mm	hole Ø mm	pack quantity
051.21.001	10,5	14,5	3,0	1 piece
051.21.002	12,5	16,5	3,0	1 piece
051.21.003	14,0	18,0	3,0	1 piece
051.21.004	17,0	22,0	4,0	1 piece
051.21.005	18,0	24,0	4,0	1 piece
051.21.006	21,0	27,0	5,0	1 piece
051.21.007	23,0	29,0	5,0	1 piece
051.21.008	26,0	32,0	6,0	1 piece
051.21.009	29,0	35,0	6,0	1 piece
051.21.010	31,0	38,0	7,0	1 piece



STOPPERS
"cellulose"

- Manufactured from additive free autoclavable, air permeable, actively breathing best quality cellulose.
- Provide excellent sealing for microbiological samples in tissue culture tubes, flasks etc.
- Also offers multiple advantages such as economical price, labour and time saving applications and perfectly tight fitting.

catalogue number	bottom Ø mm	top Ø mm	height mm	pack quantity
051.24.001	7,5	12,5	30,0	10 pcs.
051.24.002	9,0	12,5	30,0	10 pcs.
051.24.003	11,0	15,5	32,0	10 pcs.
051.24.004	11,5	16,5	40,0	10 pcs.
051.24.005	12,5	17,0	40,0	10 pcs.
051.24.006	15,5	20,0	40,0	10 pcs.
051.24.007	15,5	25,0	45,0	10 pcs.
051.24.008	20,0	26,5	50,0	10 pcs.
051.24.009	24,0	35,0	55,0	10 pcs.



STOPPERS - *"silicone"*
"turn - over flange"

- Manufactured from chemically inert, autoclavable, best quality natural silicone.
- Guarantees excellent chemical and temperature resistance between -60°C to +170°C.
- They provide perfect tight sealing even with poorly finished rims preventing accidental openings.
- Offers optional sealing both from inside or outside of the tube wall.
- For sampling the upper septum can be easily punctured. Flexible body material reseales.





catalogue number	effective diameter	pack quantity
051.26.001	7,1 mm	10 pieces
051.26.002	10,2 mm	10 pieces
051.26.003	12,7 mm	10 pieces
051.26.004	14,9 mm	10 pieces
051.26.005	15,9 mm	10 pieces
051.26.006	19,4 mm	10 pieces
051.26.007	23,7 mm	10 pieces
051.26.008	30,7 mm	10 pieces

how to select proper size stopper?

NS size	total height	diameter narrow end	diameter wide end
10/19	19,00 mm	8,02 mm	10,00 mm
12/21	21,00 mm	10,50 mm	12,50 mm
14/23	23,00 mm	12,17 mm	14,50 mm
19/26	26,00 mm	16,01 mm	18,80 mm
24/29	29,00 mm	20,95 mm	24,00 mm
29/32	32,00 mm	26,12 mm	29,20 mm
34/35	35,00 mm	30,77 mm	34,50 mm

Attached table indicates technical dimensions of NS joints. Please examine the related NS size and select the right stopper from the catalogue list.

Please pay attention to select a larger stopper for perfect closure of the joint.



STOPPERS - "hallow glass" - "hexagonal" - "clear"

- Manufactured from heat resistant, durable borosilicate glass according to DIN 12252 standard.
- Hexagonal flat head prevents the stopper from rolling on the bench and avoids the breakage risk.
- A pointed, round formed "drip-tip" stopper lower end guarantees return of the adhered liquid back to the flasks.



A pointed, round formed "drip-tip" stopper lower end guarantees return of the adhered liquid back to the flasks.

catalogue number	NS size	pack quantity
051.03.001	NS 10/19	10 pieces
051.03.002	NS 12/21	10 pieces
051.03.003	NS 14/23	10 pieces
051.03.004	NS 19/26	10 pieces
051.03.005	NS 24/29	10 pieces
051.03.006	NS 29/32	10 pieces
051.03.007	NS 34/35	10 pieces



STOPPERS - "hallow glass" - "hexagonal" - "amber"

- Manufactured from heat resistant, durable borosilicate glass according to DIN 12252 standard.
- Hexagonal flat head prevents the stopper from rolling on the bench and avoids the breakage risk.
- A pointed, round formed "drip-tip" stopper lower end guarantees return of the adhered liquid back to the flasks.



Hexagonal flat head prevents the stopper from rolling on the bench and avoids the breakage risk.

catalogue number	NS size	pack quantity
051.04.001	NS 10/19	1 piece
051.04.002	NS 12/21	1 piece
051.04.003	NS 14/23	1 piece
051.04.004	NS 19/26	1 piece
051.04.005	NS 24/29	1 piece
051.04.006	NS 29/32	1 piece
051.04.007	NS 34/35	1 piece



STOPPERS - "polypropylene"

- Manufactured from polypropylene for perfect tight sealing for all NS joints.
- Hexagonal flat head prevents the stopper from rolling on the bench and avoids the breakage risk.
- The hallow form of the stopper head collects the adhered liquid and prevents the possible damage risk of the laboratory benchs.

catalogue number	NS size	pack quantity
051.08.010	NS 10/19	10 pieces
051.08.012	NS 12/21	10 pieces
051.08.014	NS 14/23	10 pieces
051.08.019	NS 19/26	10 pieces
051.08.024	NS 24/29	10 pieces
051.08.029	NS 29/32	10 pieces



CAPS - "polypropylene"

- Manufactured from polypropylene for perfect and tight closure of GL 45 screw necked laboratory bottles.
- Large ridges on the cap outer surface guarantees for increased grip and fast closure.
- Color coded caps enable fast, easy and practical identification of bottle content.
- Supplied with clear o-ring.



catalogue number	color	pack quantity
051.09.45R	red	10 pieces
051.09.45Y	yellow	10 pieces
051.09.45B	blue	10 pieces
051.09.45G	green	10 pieces





STOPPERS - *"flange" - "polyethylene"*

➤ Manufactured from polyethylene for perfect tight sealing of specially test tubes.

➤ Large size flanges on the stopper perfectly touch to the walls of the tubes and offer the best leak-proof sealing.

➤ Grooved, conical body shape guarantees perfect closure.

➤ Color coded stoppers enable fast, easy and practical identification of bottle content.



Large size flanges on the stopper perfectly touch to the walls of the tubes and offer the leak-proof sealing.

catalogue number 13 mm	catalogue number 16 mm	color	pack quantity
051.10.001	051.11.001	clear	100 pieces
051.10.002	051.11.002	blue	100 pieces
051.10.003	051.11.003	yellow	100 pieces
051.10.004	051.11.004	red	100 pieces
051.10.005	051.11.005	green	100 pieces

BORER SHARPENER



➤ Manufactured from chromated steel for sharpening the worn, blinded borer pipes.

➤ Consist of plated metal cone with hinged cutter blade set in slot and a handle.

➤ The sharpening knife is manufactured from hardened steel.

catalogue number	pack quantity
051.13.001	1 piece

STOPPERS - *"for NMR tubes"*

➤ Manufactured from EVA for perfect tight sealing of 5 mm test tubes.

➤ Large size flanges on the stopper perfectly touch to the walls of the tubes and offer the best leak-proof sealing.

➤ Grooved, conical body shape for perfect closure.

➤ Color coded stoppers enable fast, and practical identification of bottle content.

Other technical specifications can be seen on catalogue page no 270.



Large size flanges on the stopper perfectly touch to the walls of the tubes and offer the leak-proof sealing.

BORER SET - *"for stoppers"*

➤ Manufactured from chromated, nickel plated brass with sharped cutting end.

➤ Specially recommended to drill different size bores to cork, rubber or silicone stoppers.

➤ Large handles offers a good grip for faster drilling speed.

➤ Set consists of 6 different pipes with diameters starting from 4 mm to 18 mm.

➤ Supplied cleaning rod guarantees fast and effective cleaning of the residues remaining in the cutting pipes.



catalogue number	pack quantity
051.12.001	1 piece

CLING FILM

- Manufactured from PVC based resin with extremely good stretching, and adhesion characteristics. Perfect tool for sealing and wrapping of various labware.
- Offers an easy use and easy for unravel application.
- Stretches and widens up 50% of original length. Clings around the labware and seals labware with leak-proof tightness.
- Waterproof. Chemically inert and resistant to most organic solvents and caustic agents.
- Remains flexible in moderate freezing temperatures. Can resists up to 75°C.



Offers extremely good stretching, and adhesion characteristics. Perfect tool for sealing and wrapping of various labware.

catalogue number	roll width	roll length	foil thickness	pack quantity
058.03.001	300 mm	90 m	0,011 mm	1 piece





SEALING FILM - *"parafilm"*

- Most common sealing film used in laboratories.
- Manufactured from polioefin and paraffin mixture.
- Guarantees excellent chemical to salt, inorganic and alkaline solutions up to 48 hours and offers temperature resistance between -45°C to +500°C.
- Stretches and widens up 200% of original length.
- Clings around flask necks circumference and seal irregular perimeters of flasks, erlenmeyers, bottles, beakers etc. with leak-proof tightness.
- Also prevents breakage risk of flask neck and spillage of flask contents in case of a tilt over.

Clings around flask neck circumference and seal irregular perimeters of flaks, erlenmeyers, bottles, beakers etc. with leak-proof tightness.



catalogue number	width	length	pack quantity	box quantity
058.01.001	50 mm	75 mt	1 piece	12 pieces
058.01.002	100 mm	38 mt	1 piece	12 pieces



PARAFILM DISPENSER

- Perfect tool for safe and easy cutting of 100 mm and 50 mm width parafilms.
- Keeps the remaining part uneffected from enviromental conditions.
- Can cut one roll of 100 mm or simultaneously 2 rolls of 50 mm width parafilm.
- Manufactured from ABS and featured with a double action cutting blade that silides and cuts.
- The clear hinged lid enables visual control of the remaining parafilm roll.
- Unique design of the blade holder guarantees easy handling.
- The cutting blade can easily slide in both directions providing a clean and uninterrupted cut.
- The cutting blade is embedded in a holding block ensuring finger safety.

dispenser cat. number	dimensions	body color	pack quantity
058.02.001B	120 x 140 x 140 mm	blue	1 piece
058.02.001P	120 x 140 x 140 mm	purple	1 piece
058.02.001R	120 x 140 x 140 mm	ruby	1 piece



Push the cutting mechanism of the dispenser backwards.



Place the parafilm and move the mechanism back to original position.



Pull out the necessary length from dispenser for cutting.



Parafilm is cut with one movement of the blade from side to side.

SPARE CUTTING BLADE

- Unique design of the blade holder guarantees easy handling.
- The cutting blade is embedded in a holding block ensuring finger safety.
- It is recommended that after a certain use period the cutting blade should be exchanged for better cutting performance.

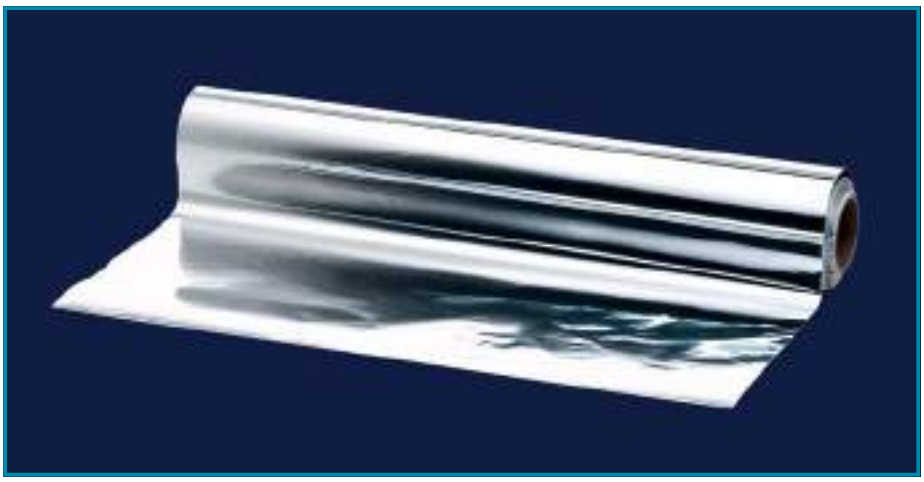
catalogue number	pack quantity
058.02.101	1 piece





The clear hinged lid enables visual control of the remaining parafilm roll and keeps the remaining part uneffected from enviromental conditions.

Parafilm dispenser simultaneously can cut 2 rolls of 50 mm width parafilm.



FOIL ROLL - *"aluminium"*

- Manufactured from polished, pure aluminium sheet for wrapping and sealing of various labware.
- Due to the characteristics also convenient to form temporary containers.
- Offers ideal use during autoclaving, heating, freezing applications.
- Approximate foil thickness is 0,018 mm.

catalogue number	roll width	roll length	pack quantity
058.04.001	300 mm	45 m	1 piece



FOIL DISPENSER

- Perfect dispenser to be used for aluminium folios and cling films.
- Easy and safe to use; Place the roll inside the box, press the lid, pull the necessary length out and start cutting.
- An easy and clean cut without waste is guaranteed with sharp cutting teeth.
- Light weight ensures easy handling with one hand.
- Compact design requires limited working space area.

catalogue number	max. roll width	pack quantity
058.02.002	300 mm	1 piece



ALUMINIUM DISCS

- Manufactured from polished, pure aluminium sheet in circular form for sealing of beakers, erlenmeyers, flasks and other various labware necks.
- Guarantees perfect, dust-free seal and offers ideal use during autoclaving, heating, freezing applications.
- Discs do not stick to each other since they are interleaved with protective tissue papers.
- Approximate foil thickness is 0,03 mm.

Guarantees perfect, dust-free seal and offers ideal use during autoclaving, heating, freezing applications.



catalogue number	diameter	pack quantity
058.05.080	80 mm	1000 pieces
058.05.100	100 mm	1000 pieces
058.05.125	125 mm	1000 pieces
058.05.150	150 mm	1000 pieces

PEN - *"engraving"*



Easy to operate; hold the pen tightly on the surface, press the power button, let the tip rotate with high speed and provide a permanent inscription on the surface.

- Offers unlimited application for writing, marking and engraving on almost all surfaces without applying pressure.
- Easy to operate; hold the pen tightly on the surface, press the power button, let the tip rotate with high speed and provide a permenant inscription on the surface.
- The inscriptions and markings will not be effected by chemicals or sunshine and stay forever.
- Cordless battery power enables both indoor and outdoor applications. Operates with 2x"AA" battery which is not supplied with the pen.

catalogue number	pack quantity
099.01.001	1 piece







PENS - *"permanent-ink"- "double tip"*

- All purpose pens with round fiber tip for labelling, writing, painting on virtually all materials including glass, metal and plastic surfaces.
- Consists of 2 tips at each end. The "fine" tip at one end has 0,6 mm stroke. The "medium" tip at the other hand has 1,5 mm stroke.
- The pen ink is odorless, smudge-proof, and quick drying. Tips do not dry even if left uncapped for prolonged hours.



Supplied as a pack of 3 pens with red, blue and black colors.

catalogue number	pack quantity
099.01.002	set of 3 pens

PENS - *"marker"- "double tip"*

- All purpose pens with flat fiber tip for marking texts on paper.
- Consists of 2 tips at each end. The "fine" tip at one end has 0,9 mm stroke. The "medium" tip at the other hand has 2,7 mm stroke.
- Airtight pen cap prevents air flow and for extended life cycle.
- Supplied as a pack of 5 pens with purple, blue, green, pink and yellow colors.



Supplied as a pack of 5 pens with purple, blue, green, pink and yellow colors.

catalogue number	pack quantity
099.01.006	set of 5 pens









Supplied as a pack of 3 pens with blue, red and black colors.

PENS - *"permanent-ink"- "single tip"*

- All purpose pens with round fiber tip for labelling, writing, painting on virtually all materials including glass, metal and plastic surfaces.
- Consists of a single tip at one end with 3 mm stroke.
- The pen ink is odorless, smudge-proof, and quick drying. Tip do not dry even if left uncapped for prolonged hours.

catalogue number	pack quantity
099.01.003	set of 3 pens



SEALING TAPE - *"for petri dishes"*

- Perfect tool to protect petri dish interior contents from dust, moisture and other environmental effects.
- Waterproof. Chemically inert and resistant to most organic solvents and caustic agents.
- Remains flexible in moderate freezing temperatures. Can resist up to 100°C.
- Stretches and widens up 50% of original length.
- Clings around the petri dish body and seals irregular perimeters of petri dishes with leak-proof tightness.
- Also can be used to seal bottle necks and caps.

catalogue number	tape width	pack quantity
058.07.001	19 mm	1 piece



SEALING TAPE - *"various"*

1- Metallized Cloth tape: With strong adhesion and high tensile strength. Suitable for heavy-duty packagings, carpet joining etc.

2- Cold Resistant Aluminium tape: Suitable for heat/cold reflective wrap along or over insulation, wrapping any product for protection against heat, water, dust and chemicals.

3- Reinforced Kraft Paper tape: With reinforced layer with fiberglass lamination for excellent resistance to abrasion while transporting. Can adhare to any surface due to the strong adhesive backsurface. Suitable for heavy duty packaging, bundling etc.

4- Reinforced Aluminium tape: Made with layers of aluminum, fibreglass yarn and Kraft paper. Resistant to U.V degradation, flame, moisture, many chemicals. Can adhare to any surface due to the strong adhesive backsurface. Also suitable for heat/cold reflective wrap along or over insulation, wrapping any product for protection against heat, water, dust and chemicals.

5- Double Side tape: With excellent adhesive quick double stick on both sides. Very thin but very strong. Suitable for attaching any two products to each other.

6- P.E Warning tape: With bold duo-tone color strip. Highly visible. Widely used as accident and hazard warning purpose. Suitable for hazard warning, section segregation, identifying, labelling.

catalogue number	tape name	tape width	tape length	pack quantity
099.04.002	Metallized Cloth tape	50 mm	15 mt	1 roll
099.04.003	Cold-Resistant Al. tape	50 mm	20 mt	1 roll
099.04.004	Reinforced Kraft tape	60 mm	50 mt	1 roll
099.04.005	Reinforced Al. tape	50 mm	20 mt	1 roll
099.04.006	Double-Sided tape	19 mm	10 mt	1 roll
099.04.007	P.E Warning tape	50 mm	100 mt	1 roll



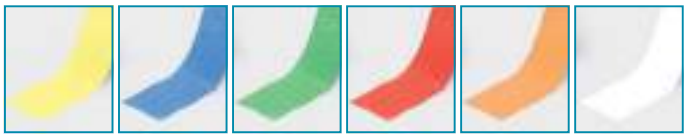
CUTTING TOOL - *"for tapes"*

- A practicle cutting tool for all mentioned tapes in this page.
- Practical to use. Easy to handle. Just place the tape in position and start using immediately.

catalogue number	pack quantity
099.04.001	1 piece

TAPES - *"for labelling" - "roll"*





- Manufactured from colored paper with special resin adhesive that resists to moisture and most solvents.
- Can be used between -5°C to + 110°C temperature range. Also with stands steam autoclaving cycle and gamma irradiation.
- Adheres to any clean surface including PTFE coated surfaces and peels off without leaving any sticky residue.
- Accepts writing from almost all pen types such as pencil, ball point pen, solvent ink marker etc.
- Markings remain absolutely legible under the most demanding laboratory conditions.
- Supplied as white color or as "rainbow pack" pack of 6 different colors matching the universal hazard color codes. (yellow for chemical reactivity / blue for health hazards / green for safety / red for flammability / orange tape for biohazard and white for general purpose.)

catalogue number	tape width	tape length	tape color	box quantity
099.02.001	19 mm	30 meter	rainbow colors	set of 6 rolls
099.02.011	19 mm	30 meter	white	1 roll

TAPE DISPENSER



- Suitable for holding and releasing the tape to be cut to users desire.
- The core perfectly fits to the inner diameter of the tape and keeps the tape rigidly.
- Platform includes a writing surface. Finger holes on the platform enable quick release of the tape and accelerate the cutting step.
- Featured with a cut-off edge for efficient cutting of the tape.
- A weighted base with non-skid pads prevent sliding or lifting.
- Over all dimensions: 155x250x100 mm.
  Cutting platform dimensions: 155x110 mm.

catalogue number	pack quantity
099.02.002	1 piece

LABELS - " *"rectangular form"*



- Manufactured from polypropylene flexible paper with acrylic resin adhesive back.
- This unique combination expands and retracts together with temperature fluctuations and guarantees always a strong adhesive bond.
- Chemically inert, resists to water, moisture and most organic solvents and caustic agents. Can be used between -96°C to +121°C temperature range. Also withstands steam autoclaving cycle and gamma irradiation.
- Adheres to any clean surface including PTFE coated surfaces without cracking, peeling and degrading. Peels off without leaving any sticky residue.

catalogue number	label length	label width	label color	roll quantity	pack quantity
099.03.050	30 mm	50 mm	white	1000 labels	1 roll
099.03.072	72 mm	40 mm	white	1000 labels	1 roll
099.03.090	90 mm	50 mm	white	1000 labels	1 roll



LABEL - *"circular form"*

- Manufactured from polyfiber grade flexible paper with acrylic resin adhesive back.
- This unique combination expands and retracts together with temperature fluctuations and guarantees always a strong adhesive bond.
- Chemically inert, resists to water, moisture and most organic solvents and caustic agents. Can be used between -196°C to +80°C temperature range.
- Adheres to any clean surface including PTFE coated surfaces without cracking, peeling and degrading. Peels off without leaving any sticky residue.
- Recommended to be used on tube caps with different diameters. Supplied as rolls packed in a dispenser box for practical use.
- Supplied as white color or as "rainbow pack" pack of 6 different colors matching the universal hazard color codes. (yellow for chemical reactivity / blue for health hazards / green for safety / red for flammability / orange tape for biohazard and white for general purpose.)



"rainbow pack offers 6 different colors

catalogue number	label diameter	recommended for	label color	roll quantity	pack quantity
099.05.009	9,5 mm	0,5 ml tubes	white	1000 labels	1 roll
099.05.109	9,5 mm	0,5 ml tubes	rainbow pack	1000 labels	6 rolls
099.05.013	13 mm	1,5 & 2,0 ml tubes	white	1000 labels	1 roll
099.05.113	13 mm	1,5 & 2,0 ml tubes	rainbow pack	1000 labels	6 rolls
099.05.019	19 mm	15 ml tubes	white	500 labels	1 roll
099.05.025	25 mm	50 ml tubes	white	500 labels	1 roll



LABEL DISPENSER

- Perfect organizer for fast and efficient use of labels. Manufactured from clear acrylic and holds 6 label box.
- Drop the label box in the label dispenser and feed the paper through the slot.
- The writing surface enables easy and clean writing on the label. The sharp cutting edge helps to tear off the labels.
- A weighted base with non-skid pads prevent sliding or lifting.

catalogue number	pack quantity
099.50.001	1 piece





LABEL REMOVAL

- A perfect tool for effortless removal self adhesive labels.
- It works on the adhesive and quickly and gently dissolves adhesive of the label without leaving the sticky residue of the adhesive on the surface.
- Can be used on glass, porcelain, metal, wood, cardboard and some plastic surfaces.
- Not recommended to be used with polystyrene.

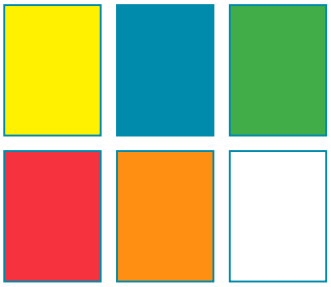
catalogue number	pack quantity
099.60.001	1 piece





LABELS - *"rectangular form"*

- Manufactured from polyfiber grade flexible paper with acrylic resin adhesive back.
- This unique combination expands and retracts together with temperature fluctuations and guarantees always a strong adhesive bond.
- Chemically inert, resists to water, moisture and most organic solvents and caustic agents.
- Can be used between -40°C to +121°C temperature range.
- Also withstands steam autoclaving cycle and gamma irradiation.
- Adheres to any clean surface including PTFE coated surfaces without cracking, peeling and degrading. Peels off without leaving any sticky residue.
- Recommended to be used on flat or round surfaces with different diameters.
- Supplied as 1000 label rolls packed in a dispenser box for practicle use.



Supplied as white color or as "rainbow pack" pack of 6 different colors matching the universal hazard color codes. (yellow for chemical reactivity / blue for health hazards / green for safety / red for flammability / orange tape for biohazard and white for general use).

"rainbow pack offers 6 colors

catalogue number	label dimensions	recommended tube volume	label color	pack quantity
099.06.024	24x13 mm	0,5 ml	white	1 roll
099.06.124	24x13 mm	0,5 ml	rainbow pack	6 rolls
099.06.033	33x13 mm	1,5 & 2,0 ml	white	1 roll
099.06.133	33x13 mm	1,5 & 2,0 ml	rainbow pack	6 rolls
099.06.038	38x19 mm	general purpose	white	1 roll

LABELS - *"rectangular form"*

- Manufactured from polyfiber grade flexible paper with acrylic resin adhesive back.
- This unique combination expands and retracts together with temperature fluctuations and guarantees always a strong adhesive bond.
- Chemically inert, resists to water, moisture and most organic solvents and caustic agents.
- Can be used between -196°C to +80°C temperature range.
- Also with stands gamma irradiation.
- Adheres to any clean surface including PTFE coated surfaces without cracking, peeling and degrading. Peels off without leaving any sticky residue.
- Recommended specially to be used with cryo vials or on any flat or round surface.
- Supplied as 1000 label rolls packed in a dispenser box for practicle use.

catalogue number	label dimensions	recommended tube volume	label color	pack quantity
099.07.033	33x13 mm	1,5 & 2,0 ml	white	1 roll
099.07.038	38x19 mm	general purpose	white	1 roll

GHS pictograms can be selected from ***catalogue page no 197.***





BAGS - "autoclavable" - "plain"

- Manufactured from a special grade of polypropylene with high tear and puncture resistance.
- Commonly used for safe disposal of contaminated laboratory waste such as used petri dishes, test tubes, sample vials, cultureware and other biohazardous products.
- Also offers an alternative for storing and transportation of various products.
- Can resist pressure differences during autoclaving.
- Bags should be left open during autoclaving.
- Strong side seams stand safe under pressure or weight and guarantee safe holding of bag content.

catalogue number	bag type	width x height	pack quantity
039.30.001	plain	200 x 300 mm	100 pieces / pack
039.30.002	plain	300 x 600 mm	100 pieces / pack
039.30.003	plain	400 x 700 mm	100 pieces / pack
039.30.004	plain	590 x 890 mm	100 pieces / pack
039.30.005	plain	690 x 1100 mm	100 pieces / pack



BAGS - "autoclavable" - "imprinted"

- Manufactured from a special grade of polypropylene with high tear and puncture resistance.
- Commonly used for safe disposal of contaminated laboratory waste such as used petri dishes, test tubes , sample vials, cultureware and other biohazardous products.
- Also offers an alternative for storing and transportation of various products.
- Can resist pressure differences during autoclaving.
- Bags should be left open during autoclaving.
- Strong side seams stand safe under pressure or weight and guarantee safe holding of bag content
- On the bag surface a large writing area and necessary warnings are imprinted.

catalogue number	bag type	width x height	pack quantity
039.20.001	imprinted	320 x 640 mm	50 pieces / pack
039.20.002	imprinted	420 x 600 mm	50 pieces / pack
039.20.003	imprinted	555 x 745 mm	50 pieces / pack



BAGS - "with document wallet"

- Manufactured from a special grade of polyethylene with high tear and puncture resistance.
- Commonly used for safe transportation of samples together with related documents.
- On the bag surface a large writing area and biohazard warnings are imprinted.
- Press-seal closure system guarantees leak-proof closure.
- Consists of two compartments firmly seperated from each other.
- First compartment is used for sample storing. Documents are placed in the second compartment.
- Once the bag is closed sample and document never touches to each other even if the sample leaks.

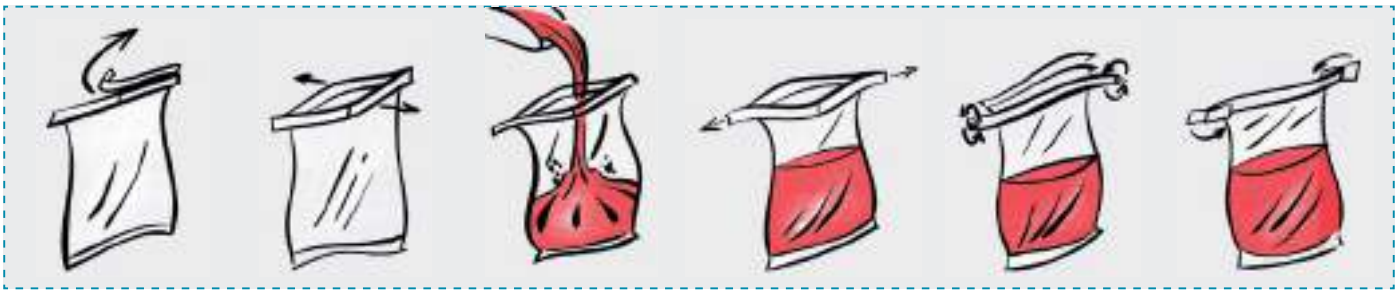
catalogue number	width x height	pack quantity
039.31.001	145 x 220 mm	100 pcs / pack
039.31.002	145 x 230 mm	100 pcs / pack



BAGS - *"with wire closure" - "sterile"*

- Manufactured from clear and thick polyethylene to be used with chemical, medical, food, biological samples of liquid, powder, solid and paste form.
- With their exceptionally transparent, odour-tight, tear-proof and leakproof properties they offer alternative solutions to laboratory bottles and other flasks.
- Sterilized with gamma irradiation, **free of RNase, DNase, and pyrogene.** Can be frozen to -80°C.
- Unique metal closure system guarantees leak-proof closure preventing odors and any leakage to exterior enviroment.
- Write-on white patch offers a practical area for writing specific marks and notes.

How to use sample bags with wire closure



Tear the upper film strip carefully along the perforation.

Open the bag by pulling the two strips at the middle of closure system.

Fill the samples carefully to the half level of the bag.

Close the bag by pulling the outer loops apart strongly.

Swirl the closing machanism at least 4 times for safe closure.

Bend wire closures the bag is closed air-tight and liquid-tight.

catalogue number	volume	width x height	wall thickness	wire thickness	packing specifications
039.21.001	60 ml	76 x 127 mm	70 microns	0,5 mm	500 pcs / pack - 1000 pcs / case
039.21.002	120 ml	76 x 178 mm	70 microns	0,5 mm	500 pcs / pack - 1000 pcs / case
039.21.003	540 ml	114 x 229 mm	70 microns	0,5 mm	500 pcs / pack - 1000 pcs / case
039.21.004	720 ml	140 x 229 mm	90 microns	0,5 mm	500 pcs / pack - 1000 pcs / case
039.21.005	1650 ml	180 x 300 mm	100 microns	0,5 mm	250 pcs / pack - 1000 pcs / case



BAGS - *"with zip-lock" - "with write - on patch"*

- Manufactured from clear and robust polyethylene to be used with chemical, medical, food, biological samples of liquid, powder, solid and paste form.
- Non-sterile, ideal for dust-free storing, collecting, protecting and shipping of specimens and samples.
- Write - on white patch offers a practical area for writing specific marks and notes.
- Rim channel seal can be opened and closed repeatedly with the guarantee of leak-proof closure.

catalogue number	w x L (mm)	pack quantity
039.08.100	70x100	100 pieces
039.08.150	100x150	100 pieces
039.08.220	150x220	100 pieces
039.08.300	200x300	100 pieces

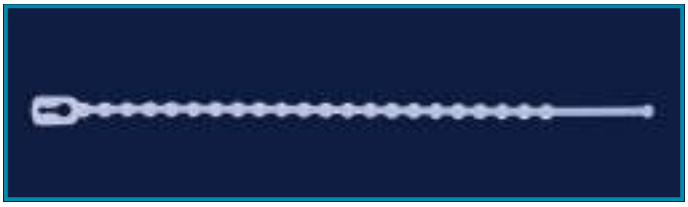


BAG SEALERS

- Can easily seal both polypropylene and polyethylene bags and sheets and foils.
- Depending on the thickness of the bag material, welding can be done maximum in few seconds.
- Heat control knob ensures safe and guaranteed sealing.
- Featured with a robust handle for better control of applied pressure.
- Guarantees extra safety since the heating element hot only during sealing.

catalogue number	sealing length	pack quantity
039.32.300	300 mm	1 pc/pack
039.32.500	500 mm	1 pc/pack







Offers very tight sealing of the bags. Cannot be opened again once closed.



Offers very tight sealing of the bags. Can be opened again once closed.

BAG TIES

- Manufactured from a special grade of polyamide with raster strips for single use.
- Offers very tight sealing of the bags. Ties cannot be opened again once closed.
- Guarantees high tensile strength, high chemical resistance also thermic resilient.

catalogue number	L x W (mm)	pack quantity
039.33.098	100x2,5	100 pieces
039.33.160	150x2,5	100 pieces
039.33.140	140x3,6	100 pieces
039.33.290	280x3,6	100 pieces
039.33.250	250x4,6	100 pieces
039.33.300	300x7,6	100 pieces

BAG LOCKS

- Manufactured from a special grade of polypropylene for quick closing of the bags.
- Unique design enables damage free opening and multiple use of the same bag lock.

catalogue number	length	width	pack quantity
039.34.105	105 mm	2,5 mm	100 pieces
039.34.150	150 mm	2,5 mm	100 pieces



BAG LATCHES

- Manufactured from a special grade of polypropylene for quick closing of the bags.
- Practical closing system guarantees perfect and tight closure of the bags.
- Color coded in 4 different colors for fast and easy identification.

catalogue number	length	width	pack quantity
039.35.075	75 mm	15 mm	4 pieces
039.35.145	145 mm	15 mm	4 pieces
039.35.200	200 mm	15 mm	4 pieces

ISOLAB
Laborgeräte GmbH

DIN EN ISO CERTIFIED 9001









distilation & filtration
separation
sample preparation























distilation & filtration & separation & sample preparation

GROUND JOINTS - "socket"



- Manufactured from heat resistant, durable borosilicate glass according to DIN 12249 standard with 120 mm length.
- Excellent grinding quality prevents airleaks and liquid leakage.

catalogue number	joint NS size	pack quantity
063.01.010	10/19	1 piece
063.01.012	12/21	1 piece
063.01.014	14/23	1 piece
063.01.019	19/26	1 piece
063.01.024	24/29	1 piece
063.01.029	29/32	1 piece
063.01.034	34/35	1 piece
063.01.045	45/40	1 piece

GROUND JOINTS - "cone"



- Manufactured from heat resistant, durable borosilicate glass according to DIN 12249 standard with 120 mm length.
- Excellent grinding quality prevents airleaks and liquid leakage.

catalogue number	joint NS size	pack quantity
063.02.010	10/19	1 piece
063.02.012	12/21	1 piece
063.02.014	14/23	1 piece
063.02.019	19/26	1 piece
063.02.024	24/29	1 piece
063.02.029	29/32	1 piece
063.02.034	34/35	1 piece
063.02.045	45/40	1 piece

ADAPTERS - "expansion"



- Manufactured from heat resistant, durable borosilicate glass according to DIN 12257 standard with socket size larger than cone size.

catalogue number	cone NS	socket NS	pack quantity
064.11.001	12/21	14/23	1 pc.
064.11.002	14/23	19/26	1 pc.
064.11.003	14/23	24/29	1 pc.
064.11.004	19/26	24/29	1 pc.
064.11.005	14/23	29/32	1 pc.
064.11.006	19/26	29/32	1 pc.
064.11.007	24/29	29/32	1 pc.
064.11.008	19/26	34/35	1 pc.
064.11.009	24/29	34/35	1 pc.
064.11.010	29/32	34/35	1 pc.
064.11.011	24/29	45/40	1 pc.
064.11.012	29/32	45/40	1 pc.

ADAPTERS - "reduction"



- Manufactured from heat resistant, durable borosilicate glass according to DIN 12257 standard with socket size smaller than cone size.

catalogue number	cone NS	socket NS	pack quantity
064.12.001	14/23	12/21	1 pc.
064.12.002	19/26	14/23	1 pc.
064.12.003	24/29	14/23	1 pc.
064.12.004	29/32	14/23	1 pc.
064.12.005	24/29	19/26	1 pc.
064.12.006	29/32	19/26	1 pc.
064.12.007	34/35	19/26	1 pc.
064.12.008	29/32	24/29	1 pc.
064.12.009	34/35	24/29	1 pc.
064.12.010	45/40	24/29	1 pc.
064.12.011	34/35	29/32	1 pc.
064.12.012	45/40	29/32	1 pc.

ADAPTERS - "with screw thread"



- Manufactured from heat resistant, durable borosilicate glass according to DIN 12257 standard.
- Excellent grinding quality prevents airleaks and liquid leakage.
- Different thread sizes offer multiple tubing connection options.

catalogue number	joint NS size	neck thread	pack quantity
065.19.141	14/23	GL 14	1 pc.
065.19.142	14/23	GL 18	1 pc.
065.19.291	29/32	GL 14	1 pc.
065.19.292	29/32	GL 18	1 pc.
065.19.293	29/32	GL 25	1 pc.

ADAPTERS - "with screw thread & cap"



- Manufactured from heat resistant, durable borosilicate glass according to DIN 12257 standard.
- Excellent grinding quality prevents airleaks and liquid leakage.
- Supplied with a screw cap with hole featured with silicone sealing.
- Provides easy adjustment of thermometer height position.

catalogue number	joint NS size	neck thread	pack quantity
065.21.014	14/23	GL 14	1 pc.
065.21.029	29/32	GL 14	1 pc.

ADAPTERS - "straight"



- Manufactured from heat resistant, durable borosilicate glass featured with a straight tubing adapter.
- Excellently grinded joint prevents airleaks and leakage.
- Tubing adapter fits tubings with 6-10 mm diameter.

catalogue number	joint NS size	pack quantity
065.26.014	14/23	1 piece
065.26.029	29/32	1 piece

ADAPTERS - "straight" - "with stopcock"



- Manufactured from borosilicate 3.3 with a straight adapter and a PTFE stopcock.
- Excellently grinded joint prevents airleaks and leakage.
- Tubing adapter fits tubings with 6-10 mm diameter.

catalogue number	joint NS size	pack quantity
065.28.014	14/23	1 piece
065.28.029	29/32	1 piece

ADAPTERS - "bend"



- Manufactured from heat resistant, durable borosilicate glass featured with a 90° angle bend tubing adapter.
- Excellently grinded joint prevents airleaks and leakage.
- Tubing adapter fits tubings with 6-10 mm diameter.

catalogue number	joint NS size	pack quantity
065.27.014	14/23	1 piece
065.27.029	29/32	1 piece

ADAPTERS - "bend" - "with stopcock"



- Manufactured from heat resistant, durable borosilicate glass with a 90° bend tubing adapter and a PTFE stopcock.
- Excellently grinded joint prevents airleaks and leakage.
- Tubing adapter fits tubings with 6-10 mm diameter.

catalogue number	joint NS size	pack quantity
065.29.014	14/23	1 piece
065.29.029	29/32	1 piece

ADAPTERS - "straight"



- Manufactured from heat resistant, durable borosilicate glass featured with a straight tubing adapter.
- Excellently grinded joint prevents airleaks and leakage.
- Tubing adapter fits tubings with 6-10 mm diameter.

catalogue number	joint NS size	pack quantity
065.22.014	14/23	1 piece
065.22.029	29/32	1 piece

ADAPTERS - "straight" - "with stopcock"



- Manufactured from heat resistant, durable borosilicate glass featured with a straight tubing adapter and a PTFE stopcock.
- Excellently grinded joint prevents airleaks and leakage.
- Tubing adapter fits tubings with 6-10 mm diameter.

catalogue number	joint NS size	pack quantity
065.24.014	14/23	1 piece
065.24.029	29/32	1 piece

ADAPTERS - "bend"



- Manufactured from heat resistant, durable borosilicate glass featured with a 90° angle bend tubing adapter.
- Excellently grinded joint prevents airleaks and leakage.
- Tubing adapter fits tubings with 6-10 mm diameter.

catalogue number	joint NS size	pack quantity
065.23.014	14/23	1 piece
065.23.029	29/32	1 piece

ADAPTERS - "bend" - "with stopcock"



- Manufactured from heat resistant, durable borosilicate glass with a 90° angle bend tubing adapter and a PTFE stopcock.
- Excellently grinded joint prevents airleaks and leakage.
- Tubing adapter fits tubings with 6-10 mm diameter.

catalogue number	joint NS size	pack quantity
065.25.014	14/23	1 piece
065.25.029	29/32	1 piece

distilation & filtration & separation & sample preparation

ADAPTERS - "bend" - "75° angle"



- Manufactured from heat resistant, durable borosilicate glass 75° angle bend and featured with two cones on both ends.
- Excellently grinded cones prevent airleaks and liquid leakage.

catalogue number	joint NS size	pack quantity
065.37.014	14/23	1 piece
065.37.029	29/32	1 piece

ADAPTERS - "bend" - "90° angle"



- Manufactured from heat resistant, durable borosilicate glass 90° angle bend and featured with two cones on both ends.
- Excellently grinded cones prevent airleaks and liquid leakage.

catalogue number	joint NS size	pack quantity
065.38.014	14/23	1 piece
065.38.029	29/32	1 piece

ADAPTERS - "2 necks" - "45° upwards angled"



- Manufactured from heat resistant, durable borosilicate glass featured with a 45° upwards angled socket.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	socket NS size	cone NS size	angled socket NS size	pack quantity
065.42.001	NS 14/23	NS 14/23	NS 14/23	1 piece
065.42.002	NS 19/26	NS 19/26	NS 19/26	1 piece
065.42.003	NS 29/32	NS 29/32	NS 14/23	1 piece
065.42.004	NS 29/32	NS 29/32	NS 29/32	1 piece

ADAPTERS - "2 necks" - "75° downwards angled"



- Manufactured from heat resistant, durable borosilicate glass featured with a 75° downwards angled socket.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	socket NS size	cone NS size	angled socket NS size	pack quantity
065.18.001	NS 14/23	NS 14/23	NS 14/23	1 piece
065.18.002	NS 19/26	NS 19/26	NS 19/26	1 piece
065.18.003	NS 29/32	NS 29/32	NS 14/23	1 piece
065.18.004	NS 29/32	NS 29/32	NS 29/32	1 piece

ADAPTERS - "2 necks" - "parallel"



- Manufactured from heat resistant, durable borosilicate glass featured with a parallel socket.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	socket NS size	cone NS size	parallel socket NS size	pack quantity
065.43.001	NS 14/23	NS 14/23	NS 14/23	1 piece
065.43.002	NS 19/26	NS 19/26	NS 19/26	1 piece
065.43.003	NS 24/29	NS 19/26	NS 19/26	1 piece
065.43.004	NS 24/29	NS 24/29	NS 24/29	1 piece
065.43.005	NS 29/32	NS 14/23	NS 14/23	1 piece
065.43.006	NS 29/32	NS 29/32	NS 29/32	1 piece

ADAPTERS - "3 necks" - "angled & parallel"



- Manufactured from heat resistant, durable borosilicate glass featured with one parallel and one angled socket.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	socket NS size	cone NS size	parallel socket NS size	pack quantity
065.44.001	NS 14/23	NS 14/23	NS 14/23	1 piece
065.44.002	NS 19/26	NS 24/29	NS 19/26	1 piece
065.44.003	NS 19/26	NS 29/32	NS 19/26	1 piece
065.44.004	NS 24/29	NS 24/29	NS 24/29	1 piece
065.44.005	NS 29/32	NS 29/32	NS 29/32	1 piece

DISTILLING HEADS



- Manufactured from heat resistant, durable borosilicate glass according to DIN 12594 standard featured with a 75° downwards angled cone.
- NS 14/23 socket is designed to be used with destillation thermometers.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	socket NS size	cone NS size	angled cone NS size	pack quantity
065.45.001	NS 14/23	NS 14/23	NS 14/23	1 piece
065.45.002	NS 14/23	NS 19/26	NS 19/26	1 piece
065.45.005	NS 14/23	NS 29/32	NS 29/32	1 piece

DISTILLING HEADS - *"Claisen"*



- Manufactured from heat resistant, durable borosilicate glass according to DIN 12594 standard featured with a 75° downwards angled cone.
- Two parallel NS 14/23 sockets are designed to be used with destillation thermometers.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	socket NS size	cone NS size	angled cone NS size	pack quantity
065.46.001	NS 14/23	NS 14/23	NS 14/23	1 piece
065.46.002	NS 14/23	NS 19/26	NS 19/26	1 piece
065.46.005	NS 14/23	NS 29/32	NS 14/23	1 piece
065.46.006	NS 14/23	NS 29/32	NS 29/32	1 piece

SPLASH HEADS - *"straight"*



- Manufactured from heat resistant, durable borosilicate glass for seperation of drops. Advised to be placed directly on top of the distillation flasks.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	cone NS	socket NS	pack quantity
065.47.001	14/23	14/23	1 piece
065.47.003	29/32	29/32	1 piece

SPLASH HEADS - *"bend"*



- Manufactured from heat resistant, durable borosilicate glass 75° angled bend for seperation of drops. Advised to be placed directly on top of the distillation flasks.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	cone NS	socket NS	pack quantity
065.48.001	14/23	14/23	1 piece
065.48.005	29/32	29/32	1 piece

ADAPTERS - *"delivery" - "straight"*



- Manufactured from heat resistant, durable borosilicate glass according to DIN 12594 standard with a cone with drain tip.
- Featured with a straight socket and a vacuum connecting adapter.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	cone NS	socket NS	pack quantity
065.34.014	14/23	14/23	1 piece
065.34.029	29/32	29/32	1 piece

ADAPTERS - *"with stopcock"*



- Manufactured from heat resistant, durable borosilicate glass according to DIN 12594 standard with a socket with drain tip.
- Featured with a straight socket and cone and a PTFE stopcock.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	cone NS	socket NS	pack quantity
065.41.014	14/23	14/23	1 piece
065.41.019	19/26	19/26	1 piece
065.41.024	24/29	24/29	1 piece
065.41.029	29/32	29/32	1 piece



DISTILLING LINKS

- Manufactured from heat resistant, durable borosilicate glass without condenser with two parallel cones.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	cone NS size	cone NS size	pack quantity
065.52.014	NS 14/23	NS 14/23	1 piece
065.52.029	NS 29/32	NS 29/32	1 piece



DISTILLING LINKS - *"with splash head"*

- Manufactured from heat resistant, durable borosilicate glass with a splash head and with two parallel cones.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	cone NS size	cone NS size	pack quantity
065.54.014	NS 14/23	NS 14/23	1 piece
065.54.029	NS 29/32	NS 29/32	1 piece



DISTILLING LINKS - *"with socket"*

- Manufactured from heat resistant, durable borosilicate glass without condenser with two parallel cones. NS 14/23 socket is designed to be used with destillation thermometers.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	cone NS size	cone NS size	socket NS size	pack quantity
065.53.014	NS 14/23	NS 14/23	NS 14/23	1 piece
065.53.029	NS 29/32	NS 29/32	NS 29/32	1 piece



DISTILLING LINKS - *"with condenser"*

- Manufactured from heat resistant, durable borosilicate glass with a liebig condenser with a NS 14/23 socket is designed to be used with destillation thermometers.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	cone NS size	socket NS size	condenser length	pack quantity
065.55.001	NS 14/23	NS 14/23	160 mm	1 piece
065.55.002	NS 14/23	NS 14/23	250 mm	1 piece
065.55.003	NS 29/32	NS 14/23	250 mm	1 piece
065.55.004	NS 29/32	NS 14/23	400 mm	1 piece



DISTILLING LINKS - *"condenser & adapter"*

- Manufactured from heat resistant, durable borosilicate glass with a liebig condenser with a NS 14/23 socket is designed to be used with destillation thermometers. Featured with a vacuum connecting adapter.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	cone NS size	socket NS size	condenser length	pack quantity
065.56.001	NS 14/23	NS 14/23	160 mm	1 piece
065.56.002	NS 14/23	NS 14/23	250 mm	1 piece
065.56.003	NS 29/32	NS 14/23	250 mm	1 piece
065.56.004	NS 29/32	NS 14/23	400 mm	1 piece

DISTILLING LINKS - *"with condenser" - "Claisen head"*



- Manufactured from heat resistant, durable borosilicate glass with a liebig condenser with two NS 14/23 socket is designed to be used with destillation thermometers.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	cone NS size	socket NS size	condenser length	pack quantity
065.57.001	NS 14/23	NS 14/23	160 mm	1 piece
065.57.002	NS 14/23	NS 14/23	250 mm	1 piece
065.57.003	NS 29/32	NS 14/23	250 mm	1 piece
065.57.004	NS 29/32	NS 14/23	400 mm	1 piece

DISTILLING LINKS - *"with condenser & vacuum adapter" - "Claisen head"*



- Manufactured from heat resistant, durable borosilicate glass with a liebig condenser with two NS 14/23 socket is designed to be used with destillation thermometers. Featured with a vacuum connecting adapter.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	cone NS size	socket NS size	condenser length	pack quantity
065.58.001	NS 14/23	NS 14/23	160 mm	1 piece
065.58.002	NS 14/23	NS 14/23	250 mm	1 piece
065.58.003	NS 29/32	NS 14/23	250 mm	1 piece
065.58.004	NS 29/32	NS 14/23	400 mm	1 piece





ADAPTERS - *"PTFE" - "flexible"*

- Manufactured from chemicaly inert PTFE with excellent chemical resistance, high mechanical strength and high temperature resistance between -200°C to +260°C.
- Unique flexible body form guarantees 90° angular connections of NS joints and provides corrections of mis-alingment in glassware assemblies.
- Extra smooth interior finish guarantees high vacuum sealing performance without a need of any lubricant.

catalogue number	socket NS size	cone NS size	pack quantity
065.36.014	NS 14/23	NS 14/23	1 piece
065.36.019	NS 19/26	NS 19/26	1 piece
065.36.024	NS 24/29	NS 24/29	1 piece
065.36.029	NS 29/32	NS 29/32	1 piece



GLASS BEADS

- Manufactured from borosilicate glass.
- They offer practical solutions specially for distillation applications with their different diameters.

catalogue number	diameter	pack quantity
030.60.003	3,0 - 3,5	1 kg
030.60.004	3,5 - 4,0	1 kg
030.60.005	4,0 - 5,0	1 kg
030.60.006	5,0 - 6,0	1 kg

ADAPTERS - "delivery" - "bend" - "short"



- Manufactured from heat resistant, durable borosilicate glass with 65 mm length.
- Featured with a 105° angled bend socket.
- Excellently grinded joint prevents airleaks and liquid leakage.

catalogue number	socket NS size	pack quantity
065.30.014	14/23	1 piece
065.30.029	29/32	1 piece

ADAPTERS - "delivery" - "bend" - "long"



- Manufactured from heat resistant, durable borosilicate glass with 200 mm length.
- Featured with a 105° angled bend socket.
- Excellently grinded joint prevents airleaks and liquid leakage.

catalogue number	socket NS size	pack quantity
065.31.014	14/23	1 piece
065.31.029	29/32	1 piece

ADAPTERS - "delivery" - "bend"



- Manufactured from heat resistant, durable borosilicate glass featured with a cone and a socket with drain tip.
- Featured with a 105° angled bend socket.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	cone NS	socket NS	pack quantity
065.32.014	14/23	14/23	1 piece
065.32.029	29/32	29/32	1 piece

ADAPTERS - "delivery"-"bend"-"with ventilation"



- Manufactured from heat resistant, durable borosilicate glass featured with a cone and a socket with drain tip.
- Featured with a 105° angled bend socket and with ventilation arm useful to be used with highly boiling liquids.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	cone NS	socket NS	pack quantity
065.33.014	14/23	14/23	1 piece
065.33.029	29/32	29/32	1 piece

ADAPTERS - "receiving" - "straight"



- Manufactured from heat resistant, durable borosilicate glass according to DIN 12594 standard with a cone with drain tip.
- Featured with a straight cone and a vacuum connecting adapter.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	cone NS	socket NS	pack quantity
065.39.014	14/23	14/23	1 piece
065.39.029	29/32	29/32	1 piece

ADAPTERS - "receiving" - "bend"



- Manufactured from heat resistant, durable borosilicate glass according to DIN 12594 standard with a cone with drain tip.
- Featured with a bend cone and a vacuum connecting adapter.
- Excellently grinded joints prevent airleaks and liquid leakage.

catalogue number	cone NS	socket NS	pack quantity
065.40.014	14/23	14/23	1 piece
065.40.029	29/32	29/32	1 piece

DRYING TUBES - *"bend"*



- Manufactured from heat resistant, durable borosilicate glass according to DIN 12610 standard with a ball and connection tube.

catalogue number	pack quantity
065.60.100	1 piece
065.60.150	1 piece

DRYING TUBES - *"U form"*



- Manufactured from heat resistant, durable borosilicate glass with a U form.

catalogue number	pack quantity
065.62.100	1 piece
065.62.130	1 piece
065.62.180	1 piece

DRYING TUBES - *"U form" - "with stopcock"*



- Manufactured from heat resistant, durable borosilicate glass according to DIN 12616 standard with a U form and featured with a stopcock.

catalogue number	pack quantity
065.63.100	1 piece
065.63.130	1 piece
065.63.180	1 piece

BOTTLES - *"gas washing"*



- Manufactured from borosilicate 3.3 with thick walls with NS 29/32 neck size.
- Supplied without the bottle heads.

catalogue number	bottle volume	pack quantity
065.66.125	125 ml	1 piece
065.66.250	250 ml	1 piece
065.66.500	500 ml	1 piece
065.66.901	1000 ml	1 piece

BOTTLE HEAD - *"glass side arm" - "without disc"*



- Manufactured from heat resistant, durable borosilicate glass without sintered glass support.
- Featured with a glass side arm.

catalogue number	pack quantity
065.67.001	1 piece

BOTTLE HEAD - *"glass side arm" - "with disc"*



- Manufactured from heat resistant, durable borosilicate glass with sintered glass support.
- Featured with a glass side arm.
- Sintered glass disc with porosity 1 for efficient gas dispensing.

catalogue number	pack quantity
065.67.011	1 piece

BOTTLE HEAD - *"P.P side arm" - "without disc"*



- Manufactured from heat resistant, durable borosilicate glass without sintered glass support.
- Featured with with GL 14 screw thread polypropylene side arm which can easily connected or disconnected preventing accidental breakage.

catalogue number	pack quantity
065.67.002	1 piece

BOTTLE HEAD - *"P.P side arm" - "with disc"*



- Manufactured from heat resistant, durable borosilicate glass with sintered glass support.
- Sintered glass disc with porosity 1 enables efficient gas dispensing
- Featured with with GL 14 screw thread polypropylene side arms.

catalogue number	pack quantity
065.67.022	1 piece

distilation & filtration & separation & sample preparation

CHEMISTRY SET



➤ Set consists of 16 pieces various small size glassware with NS 14/23 joints.

➤ Allows multi micro experiments under vacuum or atmospheric pressure.

➤ Supplied in a sturdy plastic case featured with foam inserts. Foam inserts prevent breakage and allow organised storing of the contents.

➤ Product descriptions of the chemistry set are shown at below list.

catalogue number	pack quantity
067.30.001	1 piece

item photo code	product descriptions	pack quantity
1	filter funnel	1 piece
2	receiver adapter - short stem	1 piece
3	stillhead with screwcap adapter	1 piece
4	receiver adapter - with vent	1 piece
5	pear shape flask with three necks - 25 ml	1 piece
6	erlenmeyer flask - 25 ml	1 piece
7	seperating funnel - with PTFE key - 30 ml	1 piece
8	vigreux fractionating column	1 piece

item photo code	product descriptions	pack quantity
9	measuring cylinder - 10 ml	1 piece
10	beaker - low form - 25 ml	1 piece
11	liebig condenser	1 piece
12	flat bottom flask - 10 ml	1 piece
13	keck clip	1 piece
14	pressure equalising funnel - 10 ml	1 piece
15	hexagonal stoppers	2 pieces
16	microscale chemistry case	1 piece

WATER ESTIMATOR



➤ Manufactured from borosilicate 3.3 for determination of water with xylol method.

➤ System consists of a 500 ml flask with NS 29/32 joint, a liebig condenser of 400 mm lenght and a measuring tube with PTFE stopcock.

catalogue number	pack quantity
065.70.001	1 piece

ARSENIC ESTIMATOR



➤ Manufactured from borosilicate 3.3 for determination of arsenic and antimony content.

➤ System consists of a 100 ml erlenmeyer with NS 29/32 joint and an absorption tube attached to erlenmeyer.

catalogue number	pack quantity
065.71.001	1 piece



CLIPS - *"for NS joints"*

➤ Manufactured from POM with excellent chemical resistance and high mechanical strength.

➤ With their flexible jaws, they guarantee absolute leak-proof, tight connection of two NS joints.

catalogue number	color	NS size	pack quantity
063.04.010	black	NS 10/19	1 piece
063.04.012	purple	NS 12/21	1 piece
063.04.014	yellow	NS 14/23	1 piece
063.04.019	blue	NS 19/26	1 piece
063.04.024	green	NS 24/29	1 piece
063.04.029	red	NS 29/32	1 piece
063.04.034	orange	NS 34/35	1 piece
063.04.045	brown	NS 45/40	1 piece



JOINT GREASE *"standard vacuum"*

➤ Ideal for lubricating and leak-proof sealing of all types of joints, metal and plastic connectors and stopcocks.

➤ Recommended to be used under standard vacuum conditions.

➤ Guarantees excellent chemical and temperature resistance between -40°C to +300°C.

➤ Non-solidifying during use. Easily washable due to water soluble characteristic.

➤ Best results can be achieved by application of a thin layer.

➤ Supplied in a tube of 60 gram lubricant weight.

catalogue number	grease color	pack quantity
063.16.001	clear	1 piece



JOINT GREASE *"high vacuum"*

➤ Ideal for lubricating and leak-proof sealing of all types of joints, metal and plastic connectors and stopcocks.

➤ Recommended to be used under high vacuum conditions.

➤ Guarantees excellent chemical and temperature resistance between -40°C to +320°C.

➤ Non-solidifying during use. Easily washable due to water soluble characteristic.

➤ Best results can be achieved by application of a thin layer.

➤ Supplied in a tube of 60 gram lubricant weight.

catalogue number	grease color	pack quantity
063.16.002	brown	1 piece

JOINT SLEEVES - *"PTFE"*





➤ Manufactured from chemicaly inert PTFE with excellent chemical resistance, high mechanical strength and high temperature resistance between -200°C to +260°C.

➤ Unique flexible body form guarantees leak-proof connections of NS joints with high vacuum performance.

➤ Extra smooth interior finish guarantees high vacuum sealing performance without a need of any lubricant.

catalogue number	NS size	pack quantity
063.14.014	NS 14/23	1 piece
063.14.019	NS 19/26	1 piece
063.14.024	NS 24/29	1 piece
063.14.029	NS 29/32	1 piece
063.14.034	NS 34/35	1 piece
063.14.045	NS 45/40	1 piece

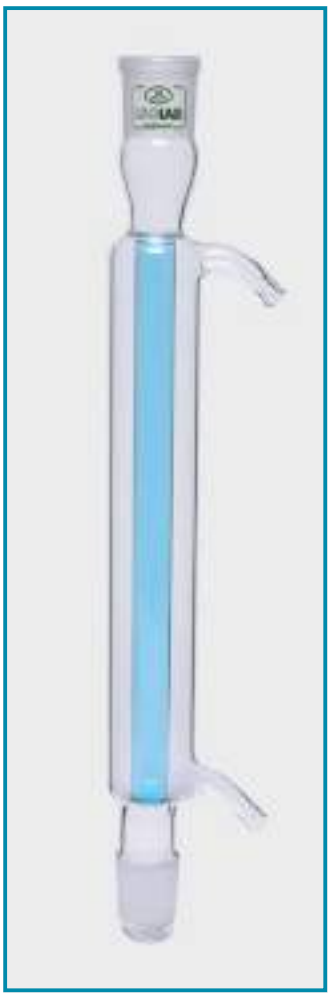


SEALING TAPE - *"PTFE"*

➤ Manufactured from chemicaly inert PTFE with excellent chemical resistance, high mechanical strength and high temperature resistance between -200°C to +260°C.

➤ Stretchs, conforms and perfectly seals all joints, connectors, stopcocks with leak- proof tightness.

catalogue number	tape width	tape length	pack quantity
058.06.001	12 mm	10 mt	1 piece



CONDENSERS - *"liebig" - "glass side arm"*

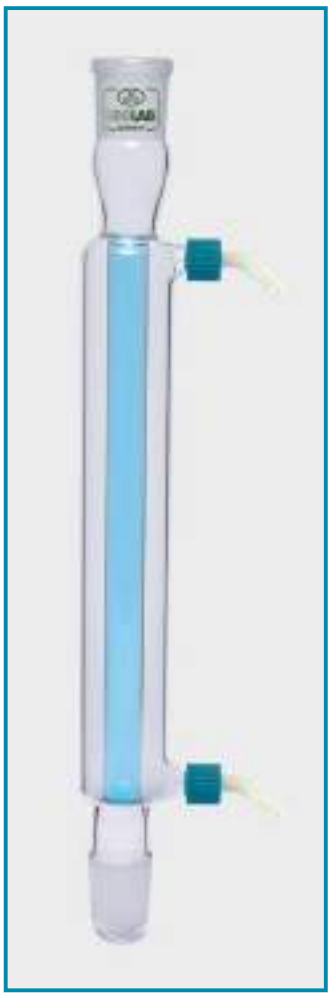
➤ Manufactured from heat resistant, durable borosilicate glass according to DIN 12576 standard. Featured with glass side arms fitting 8-9 mm bore size tubings. Thick wall, and reinforced rim prevent breakage during washing and transportation.

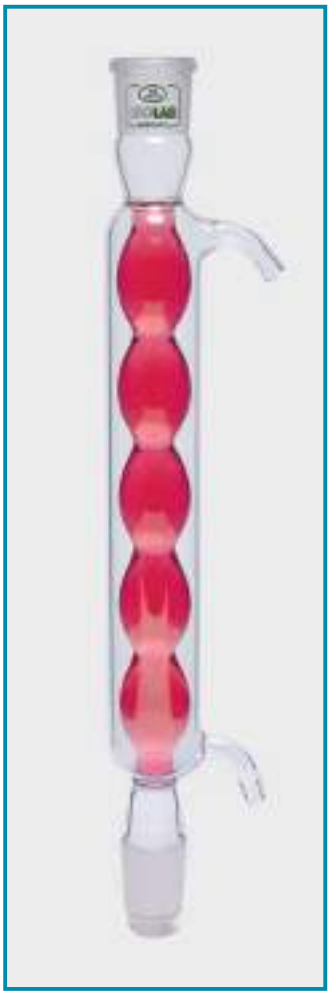
catalogue number	effective length	joint NS size	pack quantity
033.11.160	160 mm	NS 14/23	1 piece
033.11.250	250 mm	NS 14/23	1 piece
033.11.252	250 mm	NS 24/29	1 piece
033.11.253	250 mm	NS 29/32	1 piece
033.11.400	400 mm	NS 14/23	1 piece
033.11.402	400 mm	NS 24/29	1 piece
033.11.403	400 mm	NS 29/32	1 piece

CONDENSERS - *"liebig" - "P.P side arm"*

➤ Manufactured from heat resistant, durable borosilicate glass according to DIN 12576 standard. Featured with GL 14 screw thread polypropylene side arms fitting 8-9 mm bore size tubings. Side arms can be easily connected or disconnected to the main body preventing accidental breakage.

catalogue number	effective length	joint NS size	pack quantity
033.12.160	160 mm	NS 14/23	1 piece
033.12.250	250 mm	NS 14/23	1 piece
033.12.252	250 mm	NS 24/29	1 piece
033.12.253	250 mm	NS 29/32	1 piece
033.12.400	400 mm	NS 14/23	1 piece
033.12.402	400 mm	NS 24/29	1 piece
033.12.403	400 mm	NS 29/32	1 piece





CONDENSERS - *"allihn" - "glass side arm"*

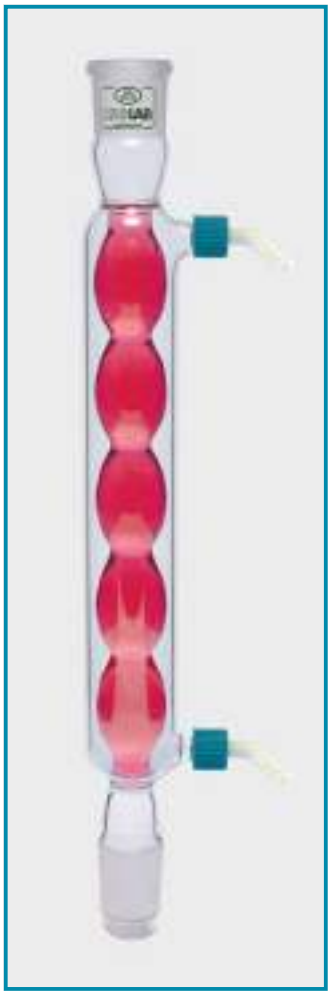
➤ Manufactured from heat resistant, durable borosilicate glass according to DIN 12581 standard. Featured with glass side arms fitting 8-9 mm bore size tubings. Thick wall and reinforced rim prevent breakage during washing and transportation.

catalogue number	effective length	joint NS size	pack quantity
033.13.160	160 mm	NS 14/23	1 piece
033.13.250	250 mm	NS 14/23	1 piece
033.13.252	250 mm	NS 24/29	1 piece
033.13.253	250 mm	NS 29/32	1 piece
033.13.400	400 mm	NS 14/23	1 piece
033.13.402	400 mm	NS 24/29	1 piece
033.13.403	400 mm	NS 29/32	1 piece

CONDENSERS - *"allihn" - "P.P side arm"*

➤ Manufactured from heat resistant, durable borosilicate glass according to DIN 12581 standard. Featured with GL 14 screw thread polypropylene side arms fitting 8-9 mm bore size tubings. Side arms can be easily connected or disconnected to the main body preventing accidental breakage.

catalogue number	effective length	joint NS size	pack quantity
033.14.160	160 mm	NS 14/23	1 piece
033.14.250	250 mm	NS 14/23	1 piece
033.14.252	250 mm	NS 24/29	1 piece
033.14.253	250 mm	NS 29/32	1 piece
033.14.400	400 mm	NS 14/23	1 piece
033.14.402	400 mm	NS 24/29	1 piece
033.14.403	400 mm	NS 29/32	1 piece





CONDENSERS - *"spiral" - "glass side arm"*

➤ Manufactured from heat resistant, durable borosilicate glass according to DIN 12592 standard.

➤ Featured with glass side arms fitting 8-9 mm bore size tubings. Thick wall and reinforced rim prevent breakage during washing and transportation.

catalogue number	effective length	joint NS size	pack quantity
033.15.160	160 mm	NS 14/23	1 piece
033.15.253	250 mm	NS 29/32	1 piece
033.15.403	400 mm	NS 29/32	1 piece



CONDENSERS - *"spiral" - "P.P side arm"*

➤ Manufactured from heat resistant, durable borosilicate glass according to DIN 12592 standard.

➤ Featured with GL 14 screw thread polypropylene side arms fitting 8-9 mm bore size tubings. Side arms can be easily connected or disconnected preventing breakage.

➤ Thick wall and reinforced rim prevent breakage during washing and transportation.

catalogue number	effective length	joint NS size	pack quantity
033.16.160	160 mm	NS 14/23	1 piece
033.16.253	250 mm	NS 29/32	1 piece
033.16.403	400 mm	NS 29/32	1 piece



CONDENSERS - *"dimroth" - "glass side arm"*

➤ Manufactured from heat resistant, durable borosilicate glass according to DIN 12591 standard. Featured with glass side arms fitting 8-9 mm bore size tubings. Thick wall and reinforced rim prevent breakage.

catalogue number	effective length	joint NS size	pack quantity
033.17.160	160 mm	NS 14/23	1 piece
033.17.163	160 mm	NS 29/32	1 piece
033.17.250	250 mm	NS 14/23	1 piece
033.17.253	250 mm	NS 29/32	1 piece
033.17.400	400 mm	NS 14/23	1 piece
033.17.403	400 mm	NS 29/32	1 piece

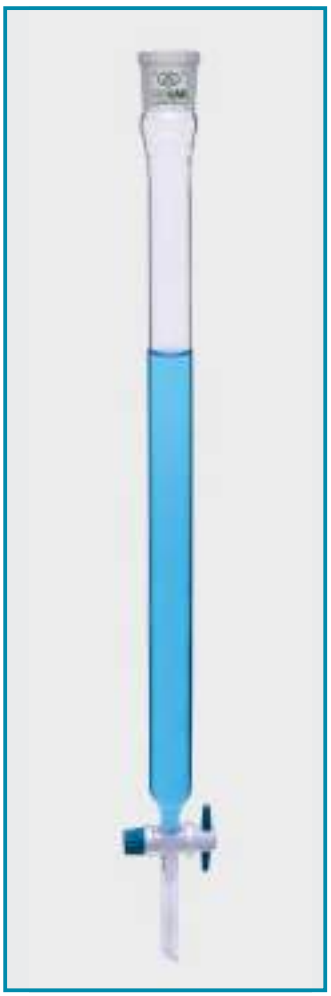


CONDENSERS - *"dimroth" - "P.P side arm"*

➤ Manufactured from heat resistant, durable borosilicate glass according to DIN 12591 standard.

➤ Featured with GL 14 screw thread polypropylene side arms fitting 8-9 mm bore size tubings. Side arms can be easily connected or disconnected preventing breakage.

catalogue number	effective length	joint NS size	pack quantity
033.18.160	160 mm	NS 14/23	1 piece
033.18.163	160 mm	NS 29/32	1 piece
033.18.250	250 mm	NS 14/23	1 piece
033.18.253	250 mm	NS 29/32	1 piece
033.18.400	400 mm	NS 14/23	1 piece
033.18.403	400 mm	NS 29/32	1 piece



COLUMNS - "chromotography" - "w/o filter"

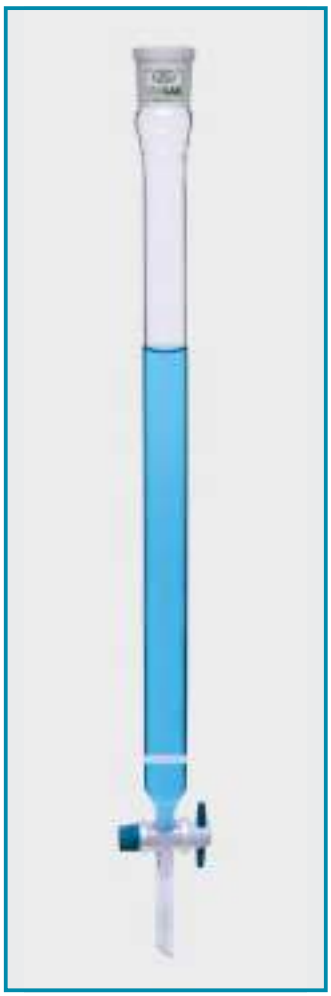
- Manufactured from borosilicate glass without filter.
- Thick wall and reinforced rim prevent breakage during washing and transportation.
- NS joints are manufactured according to DIN 12242 standard. Supplied with an interchangeable PTFE stopcock which does not require greasing at all.

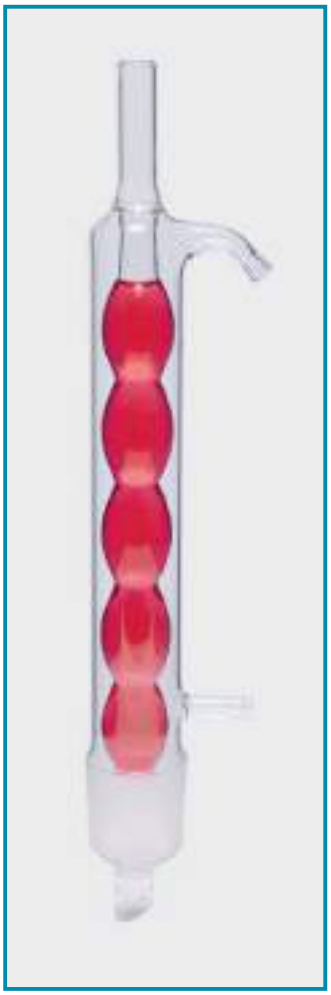
catalogue number	effective length	internal diameter	socket NS size	pack quantity
066.10.001	200 mm	10 mm	NS 14/23	1 piece
066.10.003	400 mm	20 mm	NS 29/32	1 piece
066.10.004	600 mm	30 mm	NS 29/32	1 piece

COLUMNS - "chromotography" - "with filter"

- Manufactured from borosilicate glass with "pore 1" size sintered glass filter. Reinforced rim prevent breakage.
- Perfectly grinded NS necks with smooth interior are manufactured according to DIN 12242 standard. Supplied with an interchangeable PTFE stopcock which does not require greasing at all.

catalogue number	effective length	internal diameter	socket NS size	pack quantity
066.11.001	200 mm	10 mm	NS 14/23	1 piece
066.11.003	200 mm	15 mm	NS 14/23	1 piece
066.11.002	300 mm	10 mm	NS 14/23	1 piece
066.11.004	400 mm	20 mm	NS 29/32	1 piece
066.11.005	600 mm	30 mm	NS 29/32	1 piece





CONDENSERS - "soxhlet"-"allihn"-"glass arm"

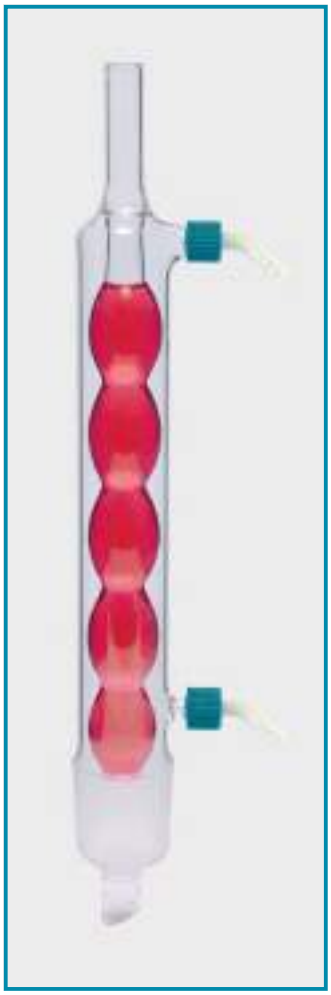
- Manufactured from heat resistant, durable borosilicate glass according to DIN 12581 standard.
- Featured with glass side arms fitting 8-9 mm bore size tubings. Thick wall and reinforced rim prevent breakage during washing and transportation.

catalogue number	for extractor volume	cone NS size	pack quantity
035.11.030	30 ml	NS 29/32	1 piece
035.11.070	70 ml	NS 34/35	1 piece
035.11.250	100 / 250 ml	NS 45/40	1 piece
035.11.500	500 ml	NS 45/40	1 piece

CONDENSERS - "soxhlet"-"allihn"-"P.P arm"

- Manufactured from heat resistant, durable borosilicate glass according to DIN 12581 standard. Thick wall, and reinforced rim prevent breakage during washing and transportation.
- Featured with GL 14 screw thread polypropylene side arms fitting 8-9 mm bore size tubings. Side arms can be easily connected or disconnected to the main body preventing accidental breakage.

catalogue number	for extractor volume	cone NS size	pack quantity
035.12.030	30 ml	NS 29/32	1 piece
035.12.070	70 ml	NS 34/35	1 piece
035.12.250	100 / 250 ml	NS 45/40	1 piece
035.12.500	500 ml	NS 45/40	1 piece





CONDENSERS - *"soxhlet"-"dimroth"-"glass arm"*

➤ Manufactured from heat resistant, durable borosilicate glass according to DIN 12591 standard.

➤ Featured with glass side arms fitting 8-9 mm bore size tubings. Thick wall and reinforced rim prevent breakage during washing and transportation.

catalogue number	for extractor volume	cone NS size	pack quantity
035.13.030	30 ml	NS 29/32	1 piece
035.13.070	70 ml	NS 34/35	1 piece
035.13.250	100 / 250 ml	NS 45/40	1 piece
035.13.500	500 ml	NS 45/40	1 piece

CONDENSERS - *"soxhlet"-"dimroth"-"P.P arm"*

➤ Manufactured from heat resistant, durable borosilicate glass according to DIN 12591 standard. Thick wall and reinforced rim prevent breakage during washing and transportation.

➤ Featured with GL 14 screw thread polypropylene side arms fitting 8-9 mm bore size tubings. Side arms can be easily connected or disconnected to the main body preventing accidental breakage.

catalogue number	for extractor volume	cone NS size	pack quantity
035.14.030	30 ml	NS 29/32	1 piece
035.14.070	70 ml	NS 34/35	1 piece
035.14.250	100 / 250 ml	NS 45/40	1 piece
035.14.500	500 ml	NS 45/40	1 piece



EXTRACTORS *"soxhlet"*

➤ Manufactured from heat resistant, durable borosilicate glass without stopcock according to DIN 12602 standard.

➤ Thick wall and reinforced rim prevent breakage during washing and transportation.

➤ Perfectly grinded NS joint with smooth interior guarantees perfect leakproof sealing.

catalogue number	volume	pack quantity
036.01.030	30 ml	1 piece
036.01.070	70 ml	1 piece
036.01.100	100 ml	1 piece
036.01.150	150 ml	1 piece
036.01.250	250 ml	1 piece
036.01.500	500 ml	1 piece

catalogue number	socket NS size
036.01.030	NS 29/32
036.01.070	NS 34/35
036.01.100	NS 45/40
036.01.150	NS 45/40
036.01.250	NS 45/40
036.01.500	NS 45/40



EXTRACTOR THIMBLES - *"cellulose"*

➤ Manufactured from thick and 100 % pure cotton fibres for reproducible results without any harm to the samples.

➤ Offers high temperature resistance up to 550°C, high mechanical strength and excellent retention capacity.

➤ Controlled dimensional accuracy guarantees excellent fitting to the extractors body.

➤ Also suitable for extracting solid or liquid samples from the gases.



catalogue number	diameter	height	pack quantity
102.28.080	28 mm	80 mm	25 pieces
102.30.080	30 mm	80 mm	25 pieces
102.33.080	33 mm	80 mm	25 pieces
102.33.094	33 mm	94 mm	25 pieces
102.34.120	34 mm	120 mm	25 pieces

distilation & filtration & separation & sample preparation



ERLENMEYERS - "clear" - "glass" - "ground neck"

- Manufactured from heat resistant, durable borosilicate glass according to DIN EN ISO 4797 standard.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior guarantee excellent leak-proof closure.
- Volume graduations and inscriptions are printed with white enamel.

catalogue number	volume	neck NS size	pack quantity
028.01.050	50 ml	NS 14/23	1 piece
028.01.051	50 ml	NS 19/26	1 piece
028.01.052	50 ml	NS 24/29	1 piece
028.01.053	50 ml	NS 29/32	1 piece
028.01.100	100 ml	NS 14/23	1 piece
028.01.101	100 ml	NS 19/26	1 piece
028.01.102	100 ml	NS 24/29	1 piece
028.01.103	100 ml	NS 29/32	1 piece
028.01.250	250 ml	NS 19/26	1 piece
028.01.251	250 ml	NS 24/29	1 piece
028.01.252	250 ml	NS 29/32	1 piece
028.01.300	300 ml	NS 29/32	1 piece
028.01.500	500 ml	NS 19/26	1 piece
028.01.501	500 ml	NS 24/29	1 piece
028.01.502	500 ml	NS 29/32	1 piece
028.01.901	1000 ml	NS 29/32	1 piece
028.01.902	2000 ml	NS 29/32	1 piece



ERLENMEYERS - "amber" - "glass" - "ground neck"

- Manufactured from heat resistant, durable borosilicate glass according to DIN EN ISO 4797 standard.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior guarantee excellent leak-proof closure.
- Volume graduations and inscriptions are printed with white enamel.

catalogue number	volume	neck NS size	pack quantity
028.11.053	50 ml	NS 29/32	1 piece
028.11.103	100 ml	NS 29/32	1 piece
028.11.252	250 ml	NS 29/32	1 piece
028.11.502	500 ml	NS 29/32	1 piece
028.11.901	1000 ml	NS 29/32	1 piece
028.11.902	2000 ml	NS 29/32	1 piece













Various stoppers for erlenmeyer necks can be seleceted from catalogue pages no 112, 113 and 114.



FLASKS - "clear" - "glass" - "ground neck" - "flat bottom"

- Manufactured from heat resistant, durable borosilicate glass according to DIN EN ISO 4797 standard.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior guarantee excellent leak-proof closure.
- Volume graduations and inscriptions are printed with white enamel.

catalogue number	volume	neck NS size	pack quantity
030.01.050	50 ml	NS 14/23	1 piece
030.01.051	50 ml	NS 19/26	1 piece
030.01.052	50 ml	NS 24/29	1 piece
030.01.053	50 ml	NS 29/32	1 piece
030.01.100	100 ml	NS 14/23	1 piece
030.01.101	100 ml	NS 19/26	1 piece
030.01.102	100 ml	NS 24/29	1 piece
030.01.103	100 ml	NS 29/32	1 piece
030.01.250	250 ml	NS 19/26	1 piece
030.01.251	250 ml	NS 24/29	1 piece
030.01.252	250 ml	NS 29/32	1 piece
030.01.500	500 ml	NS 24/29	1 piece
030.01.501	500 ml	NS 29/32	1 piece
030.01.900	1000 ml	NS 24/29	1 piece
030.01.901	1000 ml	NS 29/32	1 piece
030.01.902	2000 ml	NS 29/32	1 piece
030.01.904	4000 ml	NS 29/32	1 piece



FLASKS - "clear" - "glass" - "ground neck" - "round bottom"

- Manufactured from heat resistant, durable borosilicate glass according to DIN EN ISO 4797 standard.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior guarantee excellent leak-proof closure.
- Volume graduations and inscriptions are printed with white enamel.

catalogue number	volume	neck NS size	pack quantity
030.02.050	50 ml	NS 14/23	1 piece
030.02.051	50 ml	NS 19/26	1 piece
030.02.052	50 ml	NS 24/29	1 piece
030.02.053	50 ml	NS 29/32	1 piece
030.02.100	100 ml	NS 14/23	1 piece
030.02.101	100 ml	NS 19/26	1 piece
030.02.102	100 ml	NS 24/29	1 piece
030.02.103	100 ml	NS 29/32	1 piece
030.02.250	250 ml	NS 19/26	1 piece
030.02.251	250 ml	NS 24/29	1 piece
030.02.252	250 ml	NS 29/32	1 piece
030.02.500	500 ml	NS 24/29	1 piece
030.02.501	500 ml	NS 29/32	1 piece
030.02.900	1000 ml	NS 24/29	1 piece
030.02.901	1000 ml	NS 29/32	1 piece
030.02.902	2000 ml	NS 29/32	1 piece
030.02.904	4000 ml	NS 29/32	1 piece



FLASKS - "amber" - "glass" - "ground neck" - "round bottom"

- Manufactured from heat resistant, durable borosilicate glass according to DIN EN ISO 4797 standard.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior guarantee excellent leak-proof closure.
- Volume graduations and inscriptions are printed with white enamel.

catalogue number	volume	neck NS size	pack quantity
030.12.053	50 ml	NS 29/32	1 piece
030.12.103	100 ml	NS 29/32	1 piece
030.12.252	250 ml	NS 29/32	1 piece
030.12.501	500 ml	NS 29/32	1 piece
030.12.901	1000 ml	NS 29/32	1 piece



FLASKS - "2 ground neck" "20° angled side neck"

- Manufactured from heat resistant, durable borosilicate glass according to DIN 12394 standard.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior guarantee excellent leak-proof closure.
- Inscriptions are printed with white enamel.

catalogue number	volume	center NS size	side NS size
030.24.050	50 ml	14/23	14/23
030.24.100	100 ml	14/23	14/23
030.24.250	250 ml	14/23	14/23
030.25.100	100 ml	24/29	14/23
030.25.250	250 ml	24/29	14/23
030.25.500	500 ml	24/29	14/23
030.25.901	1000 ml	24/29	14/23
030.26.100	100 ml	24/29	19/26
030.26.250	250 ml	24/29	19/26
030.26.500	500 ml	24/29	19/26
030.26.901	1000 ml	24/29	19/26
030.27.100	100 ml	29/32	14/23
030.27.250	250 ml	29/32	14/23
030.27.500	500 ml	29/32	14/23
030.27.901	1000 ml	29/32	14/23
030.27.902	2000 ml	29/32	14/23
030.28.100	100 ml	29/32	19/26
030.28.250	250 ml	29/32	19/26
030.28.500	500 ml	29/32	19/26
030.28.901	1000 ml	29/32	19/26
030.28.902	2000 ml	29/32	19/26
030.29.100	100 ml	29/32	29/32
030.29.250	250 ml	29/32	29/32
030.29.500	500 ml	29/32	29/32
030.29.901	1000 ml	29/32	29/32
030.29.902	2000 ml	29/32	29/32



FLASKS - "2 ground neck" "parallel side neck"

- Manufactured from heat resistant, durable borosilicate glass according to DIN 12392 standard.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior guarantee excellent leak-proof closure.
- Inscriptions are printed with white enamel.

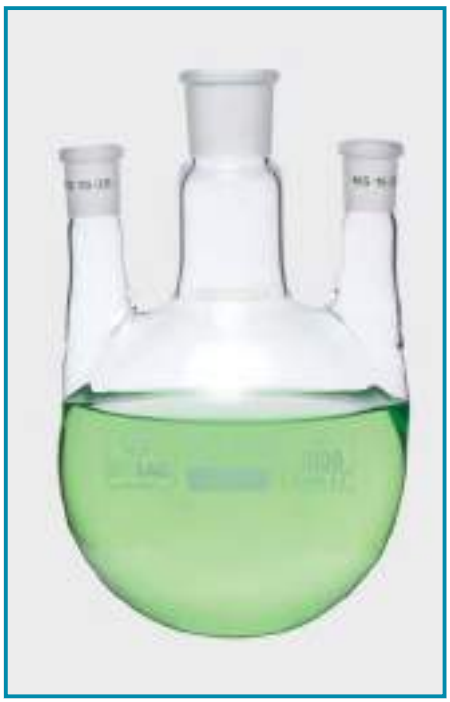
catalogue number	volume	center NS size	side NS size
030.30.050	50 ml	14/23	14/23
030.30.100	100 ml	14/23	14/23
030.30.250	250 ml	14/23	14/23
030.31.100	100 ml	24/29	14/23
030.31.250	250 ml	24/29	14/23
030.31.500	500 ml	24/29	14/23
030.31.901	1000 ml	24/29	14/23
030.32.100	100 ml	24/29	19/26
030.32.250	250 ml	24/29	19/26
030.32.500	500 ml	24/29	19/26
030.32.901	1000 ml	24/29	19/26
030.33.100	100 ml	29/32	14/23
030.33.250	250 ml	29/32	14/23
030.33.500	500 ml	29/32	14/23
030.33.901	1000 ml	29/32	14/23
030.33.902	2000 ml	29/32	14/23
030.34.100	100 ml	29/32	19/26
030.34.250	250 ml	29/32	19/26
030.34.500	500 ml	29/32	19/26
030.34.901	1000 ml	29/32	19/26
030.34.902	2000 ml	29/32	19/26
030.35.100	100 ml	29/32	29/32
030.35.250	250 ml	29/32	29/32
030.35.500	500 ml	29/32	29/32
030.35.901	1000 ml	29/32	29/32
030.35.902	2000 ml	29/32	29/32



FLASKS - "3 ground neck" "20° angled side neck"

- Manufactured from heat resistant, durable borosilicate glass according to DIN 12394 standard.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior guarantee excellent leak-proof closure.
- Inscriptions are printed with white enamel.

catalogue number	volume	center NS size	side NS size
030.36.250	250 ml	14/23	14/23
030.37.250	250 ml	24/29	14/23
030.37.500	500 ml	24/29	14/23
030.37.901	1000 ml	24/29	14/23
030.38.250	250 ml	24/29	19/26
030.38.500	500 ml	24/29	19/26
030.38.901	1000 ml	24/29	19/26
030.38.902	2000 ml	24/29	19/26
030.39.250	250 ml	29/32	14/23
030.39.500	500 ml	29/32	14/23
030.39.901	1000 ml	29/32	14/23
030.40.250	250 ml	29/32	19/26
030.40.500	500 ml	29/32	19/26
030.40.901	1000 ml	29/32	19/26
030.41.250	250 ml	29/32	29/32
030.41.500	500 ml	29/32	29/32
030.41.901	1000 ml	29/32	29/32
030.41.902	2000 ml	29/32	29/32



FLASKS - *"3 ground neck" "parallel side neck"*

- Manufactured from heat resistant, durable borosilicate glass according to DIN 12392 standard.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior guarantee excellent leak-proof closure.
- Inscriptions are printed with white enamel.

catalogue number	volume	center NS size	side NS size
030.42.250	250 ml	14/23	14/23
030.43.250	250 ml	24/29	14/23
030.43.500	500 ml	24/29	14/23
030.43.901	1000 ml	24/29	14/23
030.44.250	250 ml	24/29	19/26
030.44.500	500 ml	24/29	19/26
030.44.901	1000 ml	24/29	19/26
030.44.902	2000 ml	24/29	19/26
030.45.250	250 ml	29/32	14/23
030.45.500	500 ml	29/32	14/23
030.45.901	1000 ml	29/32	14/23
030.46.250	250 ml	29/32	19/26
030.46.500	500 ml	29/32	19/26
030.46.901	1000 ml	29/32	19/26
030.47.250	250 ml	29/32	29/32
030.47.500	500 ml	29/32	29/32
030.47.901	1000 ml	29/32	29/32
030.47.902	2000 ml	29/32	29/32



FLASKS - *"clear" - "glass" "pear shape"*

- Manufactured from heat resistant, durable borosilicate glass according to DIN 12383 standard.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior guarantee excellent leak-proof closure.
- Inscriptions are printed with white enamel.

catalogue number	volume	center NS size	pack quantity
030.49.010	10 ml	NS 14/23	1 piece
030.49.025	25 ml	NS 14/23	1 piece
030.49.050	50 ml	NS 14/23	1 piece
030.49.100	100 ml	NS 14/23	1 piece
030.49.250	250 ml	NS 14/23	1 piece

catalogue number	volume	center NS size	pack quantity
030.52.050	50 ml	NS 29/32	1 piece
030.52.100	100 ml	NS 29/32	1 piece
030.52.250	250 ml	NS 29/32	1 piece



FLASKS - *"pear shape" "25° angled side neck"*

- Manufactured from heat resistant, durable borosilicate glass according to DIN 12383 standard.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior guarantee excellent leak-proof closure.
- Inscriptions are printed with white enamel.

catalogue number	volume	center NS size	side NS size	pack quantity
030.53.025	25 ml	14/23	14/23	1 piece
030.53.050	50 ml	14/23	14/23	1 piece
030.53.100	100 ml	14/23	14/23	1 piece
030.54.025	25 ml	19/26	14/23	1 piece
030.54.050	50 ml	19/26	14/23	1 piece
030.54.100	100 ml	19/26	14/23	1 piece





Various flasks tongs can be selected from catalogue page no 83.

FLASKS - *"clear" - "glass" - "kjeldahl"*



- Manufactured from heat resistant, durable borosilicate glass according to DIN 12360 standard.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior guarantee excellent leak-proof closure.
- Volume graduations and inscriptions are printed with white enamel.

catalogue number	volume	neck NS size	pack quantity
030.57.100	100 ml	NS 19/26	1 piece
030.57.250	250 ml	NS 29/32	1 piece
030.57.500	500 ml	NS 29/32	1 piece
030.57.750	750 ml	NS 29/32	1 piece
030.57.901	1000 ml	NS 29/32	1 piece





FLASK STANDS - *"cork"*

- Manufactured from best quality heat resistant, non-porous, natural cork for holding round bottom flasks.
- Unique wall design offers an excellent support at every point of contact.

Other technical specifications can be seen at catalogue page no 49.

FLASKS - *"clear" - "glass" - "nitrogen"*



- Manufactured from heat resistant, durable borosilicate glass according to DIN and ISO standards. Featured with an 25° angle PTFE stopcock.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior guarantee excellent leak-proof closure.
- Volume graduations and inscriptions are printed with white enamel.

catalogue number	volume	neck NS size	pack quantity
030.58.025	25 ml	NS 14/23	1 piece
030.58.050	50 ml	NS 14/23	1 piece
030.58.100	100 ml	NS 14/23	1 piece
030.58.250	250 ml	NS 14/23	1 piece
030.59.050	50 ml	NS 29/32	1 piece
030.59.100	100 ml	NS 29/32	1 piece
030.59.250	250 ml	NS 29/32	1 piece
030.59.500	500 ml	NS 29/32	1 piece
030.59.901	1000 ml	NS 29/32	1 piece



FLASK STANDS - *"P.P"*

- Manufactured from best quality heat resistant, polypropylene for holding round bottom flasks.
- Unique wall design offers an excellent support at every point of contact.
- Easily stackable due to the tapered body form for reducing storage space.

Other technical specifications can be seen at catalogue page no 49.

FLASKS - "evaporating"



- Manufactured from heat resistant, durable borosilicate glass.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior guarantee excellent leak-proof closure.
- Volume graduations and inscriptions are printed with white enamel.

catalogue number	volume	evaporating NS size	pack quantity
030.55.100	100 ml	NS 29/32	1 piece
030.55.250	250 ml	NS 29/32	1 piece
030.55.500	500 ml	NS 29/32	1 piece
030.55.901	1000 ml	NS 29/32	1 piece

FLASKS - "receiving"

- Manufactured from heat resistant, durable borosilicate glass.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior guarantee excellent leak-proof closure.
- Volume graduations and inscriptions are printed with white enamel.



catalogue number	volume	receiving NS size	pack quantity
030.56.100	100 ml	KS 35	1 piece
030.56.250	250 ml	KS 35	1 piece
030.56.500	500 ml	KS 35	1 piece
030.56.901	1000 ml	KS 35	1 piece

CLIPS - "for evaporating flasks"



- Manufactured from POM with excellent chemical resistance and high mechanical strength.
- With their flexible jaws they guarantee absolute leak-proof, tight connection of two NS joints.

Other technical specifications can be seen at catalogue page no 137.

CLIPS - "for receiving flasks"

- Manufactured from stainless steel with excellent chemical resistance and superior mechanical strenght.
- Perfect tools to keep two KS joints fastened firmly to each other.

catalogue number	pack quantity
063.05.001	1 piece





For rotary evoparator kindly visit catalogue page no 150.



For vacuum pumps kindly visit catalogue page no 152.



For heating mantles kindly visit catalogue page no 264.



WATER STILLS - *"basic"*

- Offers space saving, and practical design with economical energy and water consumption.
- Supplies laboratory grade, distilled water free off pyrogen.
- Double walled interior chamber is manufactured from cavitation-proof, seamless, corrosion resistant stainless steel.
- Interior chamber should always be kept clean for consistent supply of pure water.
- Easily removable condenser unit enables fast and efficient cleaning of the chamber.
- Integrated low water protection system turns off heating in case lack of water.
- Integrated over temperature protection system turns off heating in case of a sudden increase of heat.
- Automatic circuit breakers ensure user safety in case of over temperature and over current problems.



Stainless steel double walled chamber. Easily removable condenser unit for fast and efficient cleaning of the chamber.



Corrosion proof water inlet valve

catalogue no	623.01.004	623.01.008
dimensions (mm)	380 x 290 x 580	380 x 365 x 640
voltage (V)	220	220
frequency (Hz)	50 / 60	50 / 60
heating power (W)	3000	6000
output capacity (L/hr)	3,5	7,5
cooling water usage (L/hr)	30 - 50	60 - 80
controler	hydraulic thermostat	
safety devices	over temperature breaker water level switch	
water conductivity	~ 2,3 µS	

WATER STILLS - *"automatic"*

- Offers many advantages with fully automatic operation, with space saving unique design with economical energy and water consumption.
- Supplies laboratory grade, distilled water free off pyrogen.
- Double walled interior chamber is manufactured from cavitation-proof, corrosion resistant stainless steel.
- Interior chamber should always be kept clean for consistent pure water quality.
- Easily removable condenser unit enables fast and efficient cleaning of the chamber.
- Pre-filter system prevents undesired impurities to enter inside the system during operation.
- Built-in large storage tank stores the produced water.
- Integrated low water protection system turns off heating in case of low water inlet or lack of water supplied.
- Integrated over temperature protection system turns off heating in case of a sudden increase of heat.







fully automatic operation system

- *Sensing water level in boiling chamber to prevent from over heating.*
- *Sensing water supply to control distillation process.*
- *Sensing water level in reservoir to start and stop distillation.*

PRE - FILTER

- Pre-filter system prevents undesired impurities and built-in large storage tank stores the produced water.
- Filter part in the pre-filter system should be controlled often and should be immediately replaced in case of dirt.

catalogue number	pack quantity
623.11.110	1 piece

catalogue no	623.02.004	623.02.008
dimensions (mm)	740 x 345 x 515	680 x 360 x 650
voltage (V)	220	220
frequency (Hz)	50 / 60	50 / 60
heating power (W)	3000	6000
output capacity (L/hr)	4	8
storage capacity (L)	8	14
cooling water usage (L/hr)	30 - 50	60 - 80v
controler	hydraulic thermostat	
safety devices	over temperature breaker, water level switch water float level sensor	
water conductivity	~ 2,3 µS	

ROTARY EVAPORATORS - *"vertical & diagonal"*



- Featured with motorised quick-action lift that automatically raises the evaporation flask from the bath in case of any power failure.
- Chemical-resistant double PTFE system and patented pressure spring guarantees an excellent sealing during operation.
- Easy to read large digital LCD screen displays heating temperature, rotation speed, time and other parameters.
- Patented condenser design with 1.500 cm2 effective cooling capacity guarantees excellent cooling effect.
- Unique motor action enabling selective rotation of the evaporation flask as clockwise or anti-clockwise movement guarantees effective results.
- Featured with an adjustable final position recognition system for protection of the glass parts from breakage.
- Timer function with time setting range 1 - 999 minute enables precise control of the operation.
- Supplied with a large, stainless steel 5 L water-oil bath with precise temperature control from ambient to 180°C.
- An automatic over-heat protection system automaticaly stops heating if the bath temperature exceeds 220°C.

- **Alternative 2 evaporators:**
  - **Vertical evaporator**
  - **Diagonal evaporator**

catalogue no (Vertical)	*605.01.001*
dimensions / weight (mm / kg)	*465 x 457 x 583 / 15,0*
power (W)	*1400*
voltage (V)	*220*
frequency (Hz)	*50 / 60*
heating range (°C)	*ambient +5 to 180*
heating accuracy (°C)	*± 1,0*
speed range (rpm)	*20 - 280*
speed & temp. & time display	*LCD*
time setting range (min)	*1 - 999*
rotation direction	*reversible*
protection class	*IP 20*
USB interface	*yes*

catalogue no (Diagonal)	*605.01.002*
dimensions / weight (mm / kg)	*465 x 457 x 583 / 15,0*
power (W)	*1400*
voltage (V)	*220*
frequency (Hz)	*50 / 60*
heating range (°C)	*ambient +5 to 180*
heating accuracy (°C)	*± 1,0*
speed range (rpm)	*20 - 280*
speed & temp. & time display	*LCD*
time setting range (min)	*1 - 999*
rotation direction	*reversible*
protection class	*IP 20*
USB interface	*yes*

distilation & filtration & separation & sample preparation



Integrated operating panel for convenient control of the main unit and also the heating bath.

Unique design of the detachable operating panel enables remote control option and easy use of the panel outside the fume hood.



Featured with an adjustable final position recognition system for protection of the glass parts from breakage.Unique push-off device to release the flask and protect it from breaking.

Chemical-resistant double PTFE system and patented pressure spring guarantees an excellent sealing during operation.

Optimal interval operation offers dual action in clockwise and counter clockwise for the drying process.









Supplied with a large, stainless steel 5 L water-oil bath with precise temperature control from ambient to 180°C.

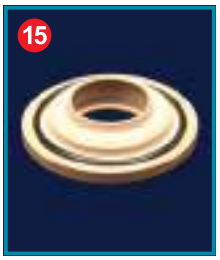
Designed as double wall with corrosion resistant coating to prevent burning and scalding. The available controls provided via integrated operating panel.

An automatic over-heat protection system automaticaly stops heating if the bath temperature exceeds 220°C.









technical specifications	
Voltage	200 - 240 V
Frequency	50 / 60 Hz
Motor & Power	DC & 1400 W
Temperature	LCD Display
Heating Range	RT - 180°C
Heat Control Accuracy	±1°C
Tank Volume	5 lt

spear parts for rotary evaporator

product no	catalogue number	product descriptions	pack quantity
01	605.01.101	vertical condenser	1 piece
02	605.01.115	diagonal condenser	1 piece
03	605.01.102	evaporating flask 50 ml	1 piece
04	605.01.103	evaporating flask 100 ml	1 piece
05	605.01.104	evaporating flask 250 ml	1 piece
06	605.01.105	evaporating flask 500 ml	1 piece
07	605.01.106	evaporating flask 1000 ml	1 piece
08	605.01.107	evaporating flask 2000 ml	1 piece
09	605.01.108	reciving flask 100 ml	1 piece
10	605.01.109	reciving flask 250 ml	1 piece
11	605.01.110	reciving flask 500 ml	1 piece
12	605.01.111	reciving flask 1000 ml	1 piece
13	605.01.112	foam brake	1 piece
14	605.01.113	vapor tube	1 piece
15	605.01.114	connection seal	1 piece

PUMPS - *"vacuum & pressure"*



- Ideal pumps for all kinds of filtration applications and also for air sampling, suspended solid tests, vacuum distillation, gel drying, chromotography applications.
- Can be used simultaneously both as a vacuum pump and as a pressure pump for pressure supply.
- Piston driven, belt free motor does not need any oil or lubricant and offers continuous oil free pumping.
- Siliconised rubber feet holds the pumps on the bench surface.
- Unique design of the pump guarantees maintenance free and long life cycle with minimum noise level less than 50dB.
- Filter barrier in the air exchange compartment of the pump enables clean air cycling at all times.
- Vacuum and pressure indicator at model 622.12.001 shows operational vacuum and pressure values at all times.
- Thermal protection system for overheating guarantees automatic stop in case of over heat during process.

catalogue number	maximum flow rate	maximum vacuum	maximum pressure	tube thread	motor power	total weight	vacuum& pressure indicator	dimensions
622.11.001	15 L / min.	250 mbar	30 Psi	6 mm	75 watt	4 kg	non	195x98x156
622.12.001	30 L / min.	200 mbar	30 Psi	6 mm	160 watt	8 kg	yes	210x160x235



WATER JET PUMP *"polypropylene"*

- Manufactured from polypropylene for continuous filtering applications.
- Suitable to operate under 10 kg/cm2 water pressure.
- Featured with a non-return valve that eliminates water back flow.
- Easily dismantled for effective cleaning.
- Can be used also as a simple vacuum pump.

catalogue number	pack quantity
040.10.001	1 piece



PUMP - *"handy" "vacuum"*

- Light, portable yet effective vacuum pump. Vacuum level can be followed-up by the mounted vacuum gauge.
- Capable of 625 mm Hg (25°C) vacuum. Effective pumping rate is 15 ml / stroke. Featured with a default vacuum release valve.
- Can be used as a pressure pump by placing release valve cap to vaccum port. Pump nozzle can fit to 6 mm inside diameter tubes.

catalogue number	pack quantity
040.10.015	1 piece



NON-RETURN VALVE - *"polypropylene"*

- Manufactured from polypropylene for usage with tubing connections and vacuum systems.
- Prevents water back flow when the pressure declines. Usefull for any tubing system and vacuum line.
- Max. safe working pressure at ambient temperature: 2,0 bar. Min. safe working pressure at ambient temperature: 0,07 bar.

Other technical specifications can be seen at catalogue page no 110.

PERISTALTIC PUMPS



For TYGON tubings please visit catalogue page 107.

- Offers control of complex pump applications with only one pump. Guarantees precise pumping for all applications both in laboratories and industry.
- Easy-to-clean stainless steel housing can resist allmost all chemicals and solvents.
- Featured with a single head pump which provides reversible liquid transfer.
- Guaranties a reliable speed accuracy <%0,5 and speed resolution 0,1 rpm (between 0,1 - 100 rpm) / 1 rpm (between 100 - 350 rpm)
- Offers adjustable rotating speed control and adjustable flow rate control.
- Also featured with start/stop, direction and dispense function, and full speed (for fast cleaning) control functions
- 4 digit LED and LCD indicator displays the working speed. Indicator also displays the internal control, external control and other working modes.
- RS485 interface supported by MODBUS protocol provides easy connection to other equipments such as computers, printers etc.

catalogue number	*rotating speed (rpm)*	*flow rate (ml / min.)*	*accuracy*	*suitable for tube Ø*	*motor power*	*voltage*	*frequency*	*total weight*	*dimensions*
616.21.001	*0.1-100*	*0.00011 - 480*	*< %0.5*	*13-20 mm*	*30 watt*	*220 - 240 V*	*50 - 60 Hz*	*2.7 kg*	*225x132x128 mm*
616.21.002	*0.1-600*	*0.006 - 2900*	*< %0.5*	*13-25 mm*	*60 watt*	*220 - 240 V*	*50 - 60 Hz*	*5.2 kg*	*226x150x238 mm*



FUNNELS
"glass" - "plain"

- Manufactured from heat resistant, durable borosilicate glass with short stem according to ISO 4798 standard.
- 60° cone filtering angle guarantees excellent adaptation of the filter papers.
- Thick wall and reinforced rim prevent breakage during washing and transportation.

catalogue number	funnel diameter	pack quantity
041.01.040	40 mm	10 pieces
041.01.060	60 mm	10 pieces
041.01.080	80 mm	10 pieces
041.01.100	100 mm	10 pieces
041.01.120	120 mm	6 pieces
041.01.150	150 mm	6 pieces



FUNNELS
"polypropylene" - "plain"

- Manufactured from translucent polypropylene with short stem according to ISO 4798 standard.
- 60° cone filtering angle guarantees excellent adaptation of the filter papers.
- Thick wall and reinforced rim prevent breakage during washing and transportation.

catalogue number	funnel diameter	pack quantity
041.02.040	40 mm	1 piece
041.02.060	60 mm	1 piece
041.02.080	80 mm	1 piece
041.02.100	100 mm	1 piece
041.02.120	120 mm	1 piece
041.02.150	150 mm	1 piece



FUNNELS
"polypropylene" - "ribbed"

- Manufactured from translucent polypropylene with short stem according to ISO 4798 standard.
- Internal helicoid ribs increase the filtering speed also prevent back pressure and airlocks.
- 60° cone filtering angle guarantees excellent adaptation of the filter papers.

catalogue number	funnel diameter	pack quantity
041.05.040	40 mm	1 piece
041.05.060	60 mm	1 piece
041.05.080	80 mm	1 piece
041.05.100	100 mm	1 piece
041.05.120	120 mm	1 piece
041.05.150	150 mm	1 piece



ANALYTICAL FUNNELS

- Manufactured from heat resistant, durable borosilicate glass or polypropylene with rims and long stem.
- Internal helicoid ribs increase the filtering speen also prevent back pressure and airlocks.
- 60° cone filtering angle guarantees excellent adaptation of the filter papers.
- Thick wall and reinforced rim prevent breakage during washing and transportation.

glass funnel	P.P funnel	funnel diameter	pack quantity
041.03.080	041.04.080	80 mm	1 piece





FUNNELS
"polypropylene" - "for powder"

- Manufactured from polypropylene for transfer of powder. Can be used also for liquids.
- Stem guarantees perfect fit to the flask and large bore diameter guarantees fast delivery of the material.
- Neck guarantees perfect fit to the flask and thick wall.



Stem guarantees perfect fit to the flask and large bore diameter guarantees fast delivery of the material.

catalogue number	funnel diameter	pack quantity
041.07.065	65 mm	1 piece
041.07.080	80 mm	1 piece
041.07.100	100 mm	1 piece
041.07.120	120 mm	1 piece
041.07.150	150 mm	1 piece



FUNNELS
"glass" - "for powder"

- Manufactured from heat resistant, durable borosilicate glass for transfer of powder. Can be used also for liquids.
- NS joint guarantees perfect fit to the flask and large bore diameter guarantees fast delivery of the material.
- NS neck guarantees perfect fit to the flask. Thick wall and reinforced rim prevent breakage during washing and transportation.



NS joint guarantees perfect fit to the flask and large bore diameter guarantees fast delivery of the material.

catalogue number	funnel diameter	cone NS size	pack quantity
041.08.060	60mm	14/23	1 piece
041.08.080	80mm	19/26	1 piece
041.08.100	100mm	24/29	1 piece
041.08.120	120mm	29/32	1 piece



FUNNELS
"stainless steel"

- Manufactured from high quality, corrosion resistant stainless steel with short stem.
- Robust seamless construction guarantees a long life cycle.
- Highly polished smooth interior enables much easier cleaning.
- 60° cone filtering angle guarantees excellent adaptation of the filter papers.



Robust seamless construction guarantees a long life cycle.

catalogue number	funnel diameter	pack quantity
041.06.080	80 mm	1 piece
041.06.100	100 mm	1 piece
041.06.120	120 mm	1 piece
041.06.150	150 mm	1 piece



FUNNELS
"polyethylene" - "industrial"

- Manufactured from high density polyethylene with short stem.
- Specially recommended to fill carboys, large vessels and drums.
- Thick wall, and reinforced rim prevent breakage during washing and transportation.

catalogue number	funnel diameter	pack quantity
041.02.200	235 mm	1 piece
041.02.250	255 mm	1 piece
041.02.300	300 mm	1 piece

Various filter papers can be selected from catalogue page no 159.







FUNNELS HOLDERS
"steel" - "without bosshead"

➤ Manufactured from high quality, corrosion resistant chromated steel for holding all kinds of funnels up to 150 mm diameter in the most secure way.

➤ Unique ring shape with a slit offers practical use also with separating funnels.

catalogue number	holder diameter	pack quantity
042.03.040	40 mm	1 piece
042.03.060	60 mm	1 piece
042.03.080	80 mm	1 piece
042.03.100	100 mm	1 piece

FUNNELS HOLDERS
"steel" - "with bosshead"

➤ Manufactured from high quality, corrosion resistant chromated steel for holding all kinds of funnels up to 150 mm diameter in the most secure way.

➤ Ring with slit offers use also with separating funnels.

➤ The boss head mounted to the stem enables fast and easy attachment of the funnel holder to the stand rods.

catalogue number	holder diameter	pack quantity
042.04.040	40 mm	1 piece
042.04.060	60 mm	1 piece
042.04.080	80 mm	1 piece
042.04.100	100 mm	1 piece



FUNNELS HOLDER
"polypropylene" - "without slit"

➤ Manufactured from polypropylene for holding all kinds of funnels from 60 mm up to 150 mm diameter in the most secure way.

➤ Two tapered wedges in the locking system are used to ensure firm grip on rods of diameter range 10 mm to 13 mm.



Funnel holder without slit consists of 2 parts.

catalogue number	pack quantity
042.05.001	1 piece



FUNNELS HOLDER
"polypropylene" - "with slit"

➤ Manufactured from polypropylene for holding all kinds of funnels from 60 mm up to 150 mm diameter in the most secure way.

➤ Specially recommended to be used with seperating funnels.

➤ Two tapered wedges in the locking system are used to ensure firm grip on rods of diameter range 10 mm to 13 mm.



Funnel holder with slit consists of 1 part.

catalogue number	pack quantity
042.06.001	1 piece



FUNNELS HOLDER
"steel" - "adjustable height"

➤ Manufactured from high quality, corrosion resistant chromated steel for holding all kinds of funnels up to 150 mm diameter in the most secure way.

➤ The extendable funnel ring guarantees practical use with different funnel heights.

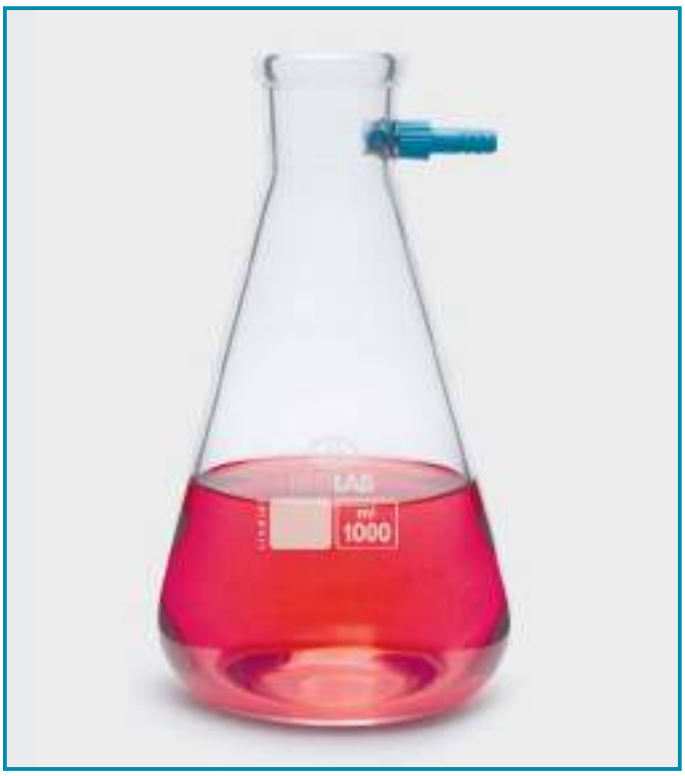
catalogue number	pack quantity
042.06.010	1 piece



FLASKS - *"filter" - "glass" - "glass side arm"*

- Manufactured from heat resistant, durable borosilicate glass according to ISO 6556 standard.
- Featured with glass side arms fitting 6-10 mm bore size tubings.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Volume graduations and inscriptions are printed with white enamel.

catalogue number	volume	pack quantity
040.01.100	100 ml	1 piece
040.01.250	250 ml	1 piece
040.01.500	500 ml	1 piece
040.01.901	1000 ml	1 piece
040.01.902	2000 ml	1 piece



FLASKS - *"filter" - "glass" - "P.P side arm"*

- Manufactured from heat resistant, durable borosilicate glass according to ISO 6556 standard.
- Featured with GL 14 screw thread polypropylene side arms fitting 6-10 mm bore size tubings.
- Side arms can be easily connected or disconnected to the main body preventing accidental breakage.
- Other technical specifications are same as glass side arm filter flasks.

catalogue number	volume	pack quantity
040.02.100	100 ml	1 piece
040.02.250	250 ml	1 piece
040.02.500	500 ml	1 piece
040.02.901	1000 ml	1 piece
040.02.902	2000 ml	1 piece





PROTECTIVE COLLARS - *"for filter flasks"*

- Manufactured from natural rubber with a special design that keeps the funnel and filtering flask always in center.
- These adapters also provide all-round protection reducing impact damages.
- Also clean seal is created between the flask rim and the funnel neck.

catalogue number	for flask volume	pack quantity
040.05.001	100 ml	1 piece
040.05.002	250 - 500 ml	1 piece
040.05.003	1000 ml	1 piece
040.05.004	2000 ml	1 piece



FUNNELS - *"büchner" - "porcelain"*

➤ Manufactured from thick and robust glazed porcelain according to DIN 12905 to be used with filter funnels.

➤ Support plate with holes holds the filter paper allows maximum filtering speed.

catalogue number	volume	pack quantity
042.01.070	70 mm	1 piece
042.01.090	90 mm	1 piece
042.01.110	110 mm	1 piece





FUNNELS - *"büchner" - "polypropylene"*

➤ Manufactured from polypropylene with a perforated filter plate.

➤ The upper part can be stacked with the lower part to form a vacuum seal.

➤ Upper and lower parts can be separated for efficient cleaning.

catalogue number	volume	pack quantity
042.02.070	70 mm	1 piece
042.02.090	90 mm	1 piece
042.02.110	110 mm	1 piece



GASKETS - *"natural rubber"*

➤ Manufactured from natural rubber with conical body form. Designed to fit Buchner and Gooch funnels. Can be used also reverse cleaning of filter crucibles and as a support to standard funnels.

➤ Conical body form guarantees perfect fitting of funnels, filter funnels and crucibles to the filter flask necks.

➤ Supplied as a set of 7 different size adapters which guarantee perfect fit to all filter funnel necks with different volume sizes.

catalogue number	pack quantity
040.06.001	1 set



FILTER PAPERS - *"quantitative"*

- Quantitative papers are recommended for analytical and gravimetric analysis.
- Manufactured first from high quality 100% cotton fibres. They are further treated with dilute acid to remove any remaining organic or inorganic impurities. As the last step they are washed and cleaned with demineralised water.
- They guarantee low ash content around less than 0,01% and around 95% alpha-cellulose amount.

M. Nagel cat. no	ISOLAB cat. no	color code	filtration speed	diameter	pack quantity
105.01.110	105.11.110	blue	slow	110 mm	100 pieces
105.02.110	105.12.110	white	medium	110 mm	100 pieces
105.03.110	105.13.110	black	fast	110 mm	100 pieces
105.01.125	105.11.125	blue	slow	125 mm	100 pieces
105.02.125	105.12.125	white	medium	125 mm	100 pieces
105.03.125	105.13.125	black	fast	125 mm	100 pieces



FILTER PAPERS - *"general purpose"*

- Manufactured from high quality 100% cellulose with a good humidity resistance and relatively high absorbtion capacity.
- Suitable for general laboratory filtrations. Alternatively, can also be used as a bench protector or pharmaceutical product preperation.

catalogue number	paper dimensions	paper specifications	pack quantity
107.40.140	40 x 40 cm	60 gr / m^2	250 pieces
107.58.158	58 x 58 cm	60 gr / m^2	250 pieces



FILTER PAPERS - *"qualitative"*

- Qualitative papers are recommended for routine separation work.
- They are manufactured from high quality 100% cellulose fibres for consistent filtration speed, loading capacity and wet strength.
- They guarantee low ash content around less than 0,1% and around 59% alpha-cellulose amount.

M. Nagel cat. no	ISOLAB cat. no	grade	filtration speed	diameter	pack quantity
106.01.110	106.11.110	No:2	slow	110 mm	100 pieces
106.02.110	106.12.110	No:1	medium	110 mm	100 pieces
106.03.110	106.13.110	No:4	fast	110 mm	100 pieces
106.01.125	106.11.125	No:2	slow	125 mm	100 pieces
106.02.125	106.12.125	No:1	medium	125 mm	100 pieces
106.03.125	106.13.125	No:4	fast	125 mm	100 pieces



FORCEPS - *"for filter papers"*

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Most commonly used forceps for placing and picking filter papers during filtering process.
- Flattened jaws grab even wet paper discs gently and precisely reducing the risk of laceration.
- Robust and seamless construction guarantees long life cycle.
- Grid lines on the middle part enable safe and easy handling.

Other technical specifications can be seen at catalogue page 91.

distilation & filtration & separation & sample preparation



FILTER FLASK *"for vacuum system"*

- Manufactured from heat resistant, durable borosilicate glass according to ISO 6556 standard with a volume of 2000 ml.
- Featured with GL 14 screw thread polypropylene side arms fitting 6-10 mm bore size tubings.
- Side arms can be easily connected or disconnected to the main body preventing accidental breakage.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.

catalogue number	volume	pack quantity
043.06.001	2000 ml	1 piece



FILTER BOTTLE *"for vacuum system"*

- Manufactured from heat resistant, durable borosilicate glass according to ISO 6556 standard with a volume of 5000 ml.
- Featured with GL 14 screw thread polypropylene side arms fitting 6-10 mm bore size tubings.
- Side arms can be easily connected or disconnected to the main body preventing accidental breakage.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.

catalogue number	volume	pack quantity
043.06.011	5000 ml	1 piece

VACUUM MANIFOLD - *"stainless steel"*



- Manufactured from stainless steel with robust seamless construction.
- Smooth finishes offers easy cleaning.
- Suitable to be used with 47/50 mm diameter membrane filters.
- Can operate with a single small size vacuum pump.
- Supplied complete with filter funnel, stopper and clamp.

catalogue number	pack quantity
043.05.001	1 piece



VACUUM FILTER SET

- Manufactured from borosilicate glass particularly suitable for analysis of microscopic residues, particle controls and multipurpose filtration application.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Suitable to be used with 47/50 mm diameter membrane filters.
- Supplied with filter funnel of 300 ml volume capacity, support base with sintered disc, vacuum connection side arm, connecting clamp and 1000 ml flask.

catalogue number	vacuum flask	pack quantity
043.03.001	1000 ml	1 piece

SPARE PARTS - *"for vacuum filter set"*



VACUUM FLASK

- Manufactured from borosilicate glass with thick walls resistant to vacuum applications with 1000 ml capacity and NS 29/32 reverse joint. **Cat. No: 043.03.005**



CLAMP

- Manufactured from aluminium for tight closure of the support base with sinter plate to the filter funnel. Offers easy and practical opening and closing during clamping. **Cat. No: 043.03.002**



FILTER FUNNEL

- Manufactured from borosilicate glass with perfect design for excellent fit to the top of the support part with 300 ml capacity and volume graduations at wall side. **Cat. No: 043.03.003**



SUPPORT BASE

- Manufactured from borosilicate glass with excellent fit to the bottom of the filter funnel with a sintered glass filter disc plate for excellent performance. **Cat. No: 043.03.004**

VACUUM MANIFOLDS - *"stainless steel"*



➤ Vacuum manifolds allow filtration of multiple samples either at once or independently by controlling the separate branch valves.

➤ Body and the funnels are manufactured from AISI 304 quality stainless steel to be used at food, beverage, pharmaceutical and water quality laboratories.

➤ The main body is featured with handles on both sides for easy hold and carriage.

➤ Robust seamless construction guarantees long life cycle and smooth finishes offers easy cleaning and rinsing.

➤ Can operate with a single vacuum pump and depending the chosen model they offer a filtration capacity up to 6 samples at the same time.

➤ Stainless steel funnels has a volume capacity of 500 ml. They can be used for sample volumes from 50 ml up to 500 ml.

➤ Volume graduation inside walls of the funnels offer practical volume indication of the sample.

• Suitable to be used with 47/50 mm diameter membrane filters.

➤ Attachment and removal of the funnels can be easily achieved with the attached closure clamp.

➤ Closure clamps under each funnels once closed guarantee perfect and vacuum tight sealing.

➤ The stainless steel frit filter support ensures a uniform distribution of the residues.

➤ All parts of vacuum filter set are fully autoclavable. They can also flame strilized.

• Vacuum manifolds are supplied with a cap for each funnel.

➤ **Alternative 3 manifolds:**
- ➤ **Manifold with 1 station**
- ➤ **Manifold with 3 stations**
- ➤ **Manifold with 6 stations**

catalogue number	*manifold model*	*dimensions LxWxH*	*pack quantity*
043.05.101	*1 station*	*170x140x250 mm*	*1 piece*
043.05.103	*3 stations*	*450x140x250 mm*	*1 piece*
043.05.106	*6 stations*	*870x140x250 mm*	*1 piece*



Volume graduation inside walls of the funnels offer practical volume indication of the sample.



Closure clamps under each funnels once closed guarantee perfect and vacuum tight sealing.



The stainless steel frit filter supports 47/50 mm diameter ensures a uniform distribution.



Membrane filters can be selected from catalogue page no 271.

FUNNELS - "gooch" - "glass" "with sintered glass disc"



- Manufactured from heat resistant, durable borosilicate glass with an acid resistant sintered glass disc for filtration.
- Guarantees an easy and fast filtering without the need of any kind of filter paper.
- Heavy and thick body construction and reinforced rim prevent breakage during washing and transportation.

funnel sintered glass	nominal volume	porosity grade	type	disc diameter	pack quantity
043.01.051	50 ml	1	3 D	35 mm	1 piece
043.01.052	50 ml	2	3 D	35 mm	1 piece
043.01.053	50 ml	3	3 D	35 mm	1 piece
043.01.054	50 ml	4	3 D	35 mm	1 piece
043.01.071	75 ml	1	11 D	45 mm	1 piece
043.01.072	75 ml	2	11 D	45 mm	1 piece
043.01.073	75 ml	3	11 D	45 mm	1 piece
043.01.074	75 ml	4	11 D	45 mm	1 piece
043.01.121	125 ml	1	17 D	60 mm	1 piece
043.01.122	125 ml	2	17 D	60 mm	1 piece
043.01.123	125 ml	3	17 D	60 mm	1 piece
043.01.124	125 ml	4	17 D	60 mm	1 piece
043.01.501	500 ml	1	25 D	95 mm	1 piece
043.01.502	500 ml	2	25 D	95 mm	1 piece
043.01.503	500 ml	3	25 D	95 mm	1 piece
043.01.504	500 ml	4	25 D	95 mm	1 piece

CRUCIBLES - "gooch" - "glass" "with sintered glass disc"



- Manufactured from heat resistant, durable borosilicate glass with an acid resistant sintered glass disc for filtration.
- Guarantees an easy and fast filtering without the need of any kind of filter paper.
- Heavy and thick body construction and reinforced rim prevent breakage during washing and transportation.

crucibles sint. glass	porosity grade	type	nominal volume	diameter	pack quantity
043.02.031	1	1 D	30 ml	30 mm	1 piece
043.02.032	2	1 D	30 ml	30 mm	1 piece
043.02.033	3	1 D	30 ml	30 mm	1 piece
043.02.034	4	1 D	30 ml	30 mm	1 piece
043.02.051	1	2 D	50 ml	40 mm	1 piece
043.02.052	2	2 D	50 ml	40 mm	1 piece
043.02.053	3	2 D	50 ml	40 mm	1 piece
043.02.054	4	2 D	50 ml	40 mm	1 piece



CRUCIBLES - "gooch" - "porcelain" "with perforated base"

- Manufactured from glazed porcelain with perforated bottom layer.
- The crucible body form guarantees perfect fit to "GUKO" adapters.

crucibles sint. glass	nominal volume	diameter	height	pack quantity
043.08.015	15 ml	29 mm	33 mm	6 pieces
043.08.030	25 ml	36 mm	45 mm	6 pieces
043.08.050	40 ml	40 mm	50 mm	6 pieces

SYRINGE FILTERS - *"non-sterile"*

- Specially designed for HPLC sample preperations with the best quality tear proven membranes. Fully autoclavable.
- Since the housing is ultrasonically sealed they offer excellent pressure stability.
- Sample distribution rings of the body directs samples for uniform filtration with a guarantee of high flow rate and filtration speed on both directions restricting the liquid overload.
- Unique female luer-lock secures connections with syringes. Body design enables to be used with all robotic machines.
- Membrane type and porosity printed on each filter. Different colour coded sealing rings enable easy differentiation of the membrane type.
- **Available 2 filters:**
  - **Syringe filters with 0,45 µm pore size**
  - **Syringe filters with 0,22 µm pore size**



SYRINGE FILTERS - *"sterile"*

- Specially designed for HPLC sample preperations with the best quality tear proven membranes. Fully autoclavable.
- Since the housing is ultrasonically sealed they offer excellent pressure stability.
- Sample distribution rings of the body directs samples for uniform filtration with a guarantee of high flow rate and filration speed on both directions restricting the liquid overload.
- Unique female luer-lock secures connections with syringes. Body design enables to be used with all robotic machines.
- Membrane type and porosity printed on each filter. Different colour coded sealing rings enable easy differentiation of the membrane type.
- **Available 2 filters:**
  - **Syringe filters with 0,45 µm pore size**
  - **Syringe filters with 0,22 µm pore size**



Other technical specifications can be seen at catalogue page no 268 and 269.

MV= *cellulose mixed esters,* ***CA=*** *cellulose acetate,* ***RC=*** *regenerated cellulose,* ***PA=*** *polyamide,* ***PTFE=*** *polytetrafluoroethylene,* ***PVDF=*** *polyvinylidene difluoride,* ***PES=*** *polyethersulfone,* ***PET=*** *polyester*

PVDF: Hydrophilic membrane
For polar solutions, water-soluble oligomers and polymers like proteins, binding capacity for proteins 20 µg per 25 mm filter.

PES: Hydrophilic membrane
For aqueous and slightly organic liquids with higher flow rates, very low adsorption for pharmaceuticals and proteins, good stability against acids and bases.

PA: Rather hydrophilic membrane
For aqueous and organic/ aqueous medium polar liquids.

PTFE: hydrophobic membrane
For nonpolar liquids and gases which are resistant to all kinds of solvents flushing with alcohol, followed by water, makes the membrane more hydrophilic.

CA: Hydrophilic membrane
For filtration of water-soluble oligomers and polymers, especially suited for biological macromolecules, extremely low binding capacity for proteins
21 µg per 25 mm filter.

MV: Hydrophilic membrane with very low adsorption
For aqueous or polar solutions

RC: Hydrophilic membrane with very low adsorption
For aqueous and organic / aqueous liquids i.e. polar and medium polar sample solutions.
Binding capacity for proteins 84 µg per 25 mm filter.

PET: Hydrophilic multi-purpose membrane
For polar as well as nonpolar solvents, not cytotoxic, does not block the growth of microorganisms and higher cells.



FUNNELS - *"separating" "squib" - "graduated"*

- Manufactured from heat resistant, durable borosilicate glass with graduation marks printed on the body according to ISO 4800.
- Thick wall and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior are manufactured according to DIN 12242 standard.
- Volume graduations and inscriptions are printed with white enamel.
- Supplied with P.E stopper and an interchangeable PTFE stopcock which does not require greasing.

catalogue number	volume	neck NS size	pack quantity
031.02.050	50 ml	NS 19/26	1 piece
031.02.100	100 ml	NS 19/26	1 piece
031.02.250	250 ml	NS 29/32	1 piece
031.02.500	500 ml	NS 29/32	1 piece
031.02.901	1000 ml	NS 29/32	1 piece
031.02.902	2000 ml	NS 29/32	1 piece



FUNNELS - *"separating" "conical" - "graduated"*

- Manufactured from heat resistant, durable borosilicate glass with graduation marks printed on the body according to ISO 4800.
- Thick wall and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior are manufactured according to DIN 12242 standard.
- Volume graduations and inscriptions are printed with white enamel.
- Supplied with P.E stopper and an interchangeable PTFE stopcock which does not require greasing.

catalogue number	volume	neck NS size	pack quantity
031.04.050	50 ml	NS 19/26	1 piece
031.04.100	100 ml	NS 19/26	1 piece
031.04.250	250 ml	NS 29/32	1 piece
031.04.500	500 ml	NS 29/32	1 piece
031.04.901	1000 ml	NS 29/32	1 piece
031.04.902	2000 ml	NS 29/32	1 piece



FUNNELS - *"separating" "cylindrical" - "graduated"*

- Manufactured from heat resistant, durable borosilicate glass with graduation marks printed on the body according to ISO 4800.
- Thick wall and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior are manufactured according to DIN 12242 standard.
- Volume graduations and inscriptions are printed with white enamel.
- Supplied with P.E stopper and an interchangeable PTFE stopcock which does not require greasing.

catalogue number	volume	neck NS size	pack quantity
031.06.050	50 ml	NS 19/26	1 piece
031.06.100	100 ml	NS 19/26	1 piece
031.06.250	250 ml	NS 29/32	1 piece
031.06.500	500 ml	NS 29/32	1 piece
031.06.901	1000 ml	NS 29/32	1 piece



FUNNELS - *"dropping" "conical" - "graduated"*

- Manufactured from heat resistant, durable borosilicate glass with graduation marks printed on the body according to ISO 4800.
- Thick wall and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior are manufactured according to DIN 12242 standard.
- Volume graduations and inscriptions are printed with white enamel.
- Supplied with P.E stopper and an interchangeable PTFE stopcock which does not require greasing.

catalogue number	volume	neck NS	cone NS	pack quantity
032.01.050	50 ml	19/26	29/32	1 piece
032.01.100	100 ml	19/26	29/32	1 piece
032.01.250	250 ml	29/32	29/32	1 piece
032.01.500	500 ml	29/32	29/32	1 piece
032.01.901	1000 ml	29/32	29/32	1 piece



FUNNELS - *"dropping" "cylindrical" - "graduated"*

- Manufactured from heat resistant, durable borosilicate glass with graduation marks printed on the body according to ISO 4800.
- Thick wall and reinforced rim prevent breakage during washing and transportation.
- Perfectly grinded NS necks with smooth interior are manufactured according to DIN 12242 standard.
- Volume graduations and inscriptions are printed with white enamel.
- Supplied with P.E stopper and an interchangeable PTFE stopcock which does not require greasing.

catalogue number	volume	neck NS	cone NS	pack quantity
032.02.050	50 ml	19/26	29/32	1 piece
032.02.100	100 ml	19/26	29/32	1 piece
032.02.250	250 ml	29/32	29/32	1 piece
032.02.500	500 ml	29/32	29/32	1 piece
032.02.901	1000 ml	29/32	29/32	1 piece



FUNNELS - *"dropping" "cylindrical" - "graduated" "with relief tube"*

- Manufactured from heat resistant, durable borosilicate glass with graduation marks printed on the body according to ISO 4800.
- Thick wall and reinforced rim prevent breakage.
- Perfectly grinded NS necks with smooth interior are manufactured according to DIN 12242 standard.
- Volume graduations and inscriptions are printed with white enamel.
- Supplied with P.E stopper and an interchangeable PTFE stopcock which does not require greasing.

catalogue number	volume	neck NS	cone NS	pack quantity
032.03.050	50 ml	19/26	29/32	1 piece
032.03.100	100 ml	19/26	29/32	1 piece
032.03.250	250 ml	29/32	29/32	1 piece
032.03.500	500 ml	29/32	29/32	1 piece
032.03.901	1000 ml	29/32	29/32	1 piece



CENTRIFUGE - *"mini"*

- Compact and easy to use personal centrifuge for quick spin downs, micro-filter cell separations, and HPLC samples.
- Durable transparent and UV resistant polycarbonate lid and ABS resin body.
- DC motor accelerates the rotor to the set speed with low vibration and also with a quiet operation less than 45 dB noise level.
- Starts and reaches a maximum speed of 7.000 rpm in seconds.
- Multi voltage design guarantees stable running and high accuracy of speed.
- Featured with a door interlock system for extra safety.
- For user safety electronic brake immediately stops when lid opens.
- Rotor is seated on a tapered shaft which enables tool-free, fast and easy exchange.
- Supplied with two rotors and adapters to accommodate 0,5 ml and 1,5 ml and 2 ml tubes and also PCR tubes.



6 cavity rotor designed for 1,5 & 2.0 ml tubes directly.



16 cavity rotor designed for 0,2 ml PCR tubes which can also hold 2 x 8 PCR strips.

catalogue no (Vertical)	*603.01.001*
dimensions / weight (mm / kg)	*175 x 140 x 117 / 0,5*
voltage (V)	*100 - 240*
frequency (Hz)	*50 / 60*
speed (rpm)	*7000*
maximum RCF (xg)	*2680*
noise level (dB)	*< 45*
run time	*continuous operation*
rotor capacity	*0,2 / 0,5 / 1,5 / 2,0 ml x 6* *0,2 ml x 16 PCR strips* *0,2 ml x 2 PCR 8 strips*
standard accessories	*16 cavity & 6 cavity rotors & adapters*



Easy to start: *Close the lid, the rotor starts and instantly reaches 7.000 rpm.*



Easy to stop: *Open the lid, the electronical brake immediately stops the rotor.*

CENTRIFUGE - *"mini" - "high speed"*



- Ideal centrifuge for fast spins for higher RCF requirement, for PCR protocols, for microfilter cell seperations, clinical applications and HPLC protocols.
- Offers memory function up to 10 different programs.
- Featured with an explosion proof and fully enclosed strong inner structure for full safety.
- Brushless DC motor accelerates the rotor to the set speed with low vibration and also with a quiet operation less than 56 dB noise level.
- Air evacuation system ensures free air flow during high speed to prevent samples being over heated.
- User friendly large LCD display enables easy setting and reading of the functional parameters.
- Both RPM and RCF can be set and displayed. The parameters can be modified after the set speed is reached.
- Metal casing with low gravity, provides stable and reliable running at maximum speed.
- Starts and reaches the maximum speed of 15.000 rpm with max 15.100 RCF in seconds. Speed can be set with an accuracy of +/- 20 rpm.
- Timer can be set from 30 seconds to 99 minutes or continuous running. Timer starts once the target speed is reached for more accurate operation time.
- Offers quick spins by pressing and holding the "pulse" key.
- Multi voltage design guarantees stable running and high accuracy of speed.
- Featured with a dual door interlock system for twice safety. Electronic brake immediately stops when lid opens for user safety.
- Lid is released automatically when the rotor stops.
- Rotor is sealed on a tapered shaft which enables tool-free, fast and easy exchange.
- Supplied with a 12 cavity rotor designed for 1,5&2.0 ml tubes directly and 12 pieces tube adapters of 0,5 ml tube volume.



User friendly large LCD display enables easy setting and reading of the functional parameters. Both RPM and RCF can be set and displayed.



High strength plastic rotor with excellent balance offers a stable operation. 12 cavity rotor designed for 0,5 & 1,5 & 2.0 ml tubes directly.

catalogue no	603.02.001
dimensions / weight (mm / kg)	255 x 245 x 140 / 6,0
voltage (V)	100 - 240
frequency (Hz)	50 / 60
maximum speed (rpm)	15000
maximum RCF (xg)	15100
speed accuracy (rpm)	± 20
increment (rpm)	100
noise level (dB)	< 56
run time	timer & continuous operation
rotor capacity	0,5 / 1,5 / 2,0 ml x 12
standard accessories	12 cavity rotors
safety devices	door interlock over speed detection over temperature detection automatic internal diagnosis

distilation & filtration & separation & sample preparation

CENTRIFUGE - *"micro" - "high speed" - "with & without refrigeration"*



- Ideal centrifuge for fast spins for higher RCF requirement, for PCR protocols, for microfilter cell seperations, clinical applications and HPLC protocols.
- The unique design guarantees stable running and high accuracy of speed.
- Brushless DC motor accelerates the rotor to the set speed with low vibration and also with a quiet operation less than 58 dB noise level.
- User friendly large LCD display enables easy setting and reading of the funtional parameters.
- Both RPM and RCF can be set and displayed. The parameters can be modified after the set speed is reached.
- Starts and reaches a maximum speed of 15.000 rpm with max 21.380 RCF in seconds. Speed can be set with an accuracy of +/- 20 rpm.
- Metal casing with low gravity, provides stable and reliable running at maximum speed.
- A powerfull and efficient cooling system based on multi-flow air cooling principle minimizes rotor heating with a ratio of 10°C per one hour working period.
- Timer can be set from 30 seconds to 99 minutes or continuous running. Timer starts once the target speed is reached for more accurate operation time.
- Short spin function is used for quick spins by pressing and holding the "pulse" key.
- Featured with a dual door interlock system for twice safety.
- Electronic brake immediately stops when lid opens for user safety. Lid is released automatically when the rotor stops
- Multi voltage design guarantees stable running and high accuracy of speed.



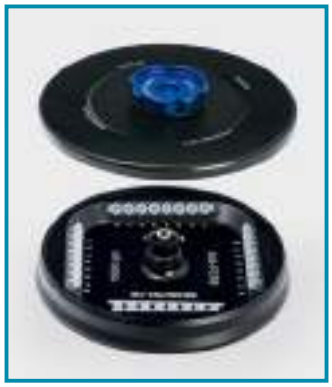
24 cavity rotor for 1,5 / 2,0 ml for 0,2 ml for 0,5 ml
catalogue no: 603.03.101

Supplied without rotor. Rotor should be ordered separately

Rotors are manufactured from aluminium alloy quarantee high mechanical strength for precise running and highest level of safety.

Rotors can be fully autoclaved within their unlimited service time Unique rotor anti-sample overflow system stops sample leakage during centrifugation and prevents microbial contamination.

Rubber seals fitted to the rotor quarantee bio-seal condition. The rotor is bio-safe once the tubes are inserted and and the lid is closed.



4 cavity rotor for 0,2 ml / PCR 8
catalogue no: 603.03.102

distilation & filtration & separation & sample preparation

CENTRIFUGE - "micro" - "high speed" - "with & without refrigeration"



Dual door interlock system for twice safety . For user safety the electronic brake immediately stops when lid opens.

For time saving purpose the lid is released automatically when the rotor stops.

At refrigerated model the lid remains closed after run time in order to keep the chamber temperature stable.



Unique pre-cooling system provides cool-down prior to operation and keeps the chamber at the pre-set temperature.

Just after 8 minutes the powerfull cooling system quickly cools down chamber to 2°C and keeps the samples temperature under 2°C even at maximum speed.

A sound alert adds additional safety factor to the precise temperature stability in the chamber.



User friendly large LCD display offers easy identification of parameters and shows all informations including accumulated running time and last running parameters.

Offers full-digit display and easy identification of parameters.

Unique temperature display protects sensitive samples. RPM or G-force can be set and displayed. Parameters can be modified after the set speed is achieved.

catalogue no	603.04.001 (with refrigeration)	603.03.001 (W/O refrigeration)
dimensions / weight (mm / kg)	338x580x324 / 30	280x364x266 / 12
voltage (V)	220	220
frequency (Hz)	50 / 60	50 / 60
maximum speed (rpm)	15000	15000
maximum RCF (xg)	21380	21380
speed accuracy (rpm)	± 20	± 20
noise level (dB)	< 56	< 58
run time	30 sec. - 99 min. or continuous	30 sec. - 99 min. or continuous
acceleration / braking time (sec)	25 s ↑ 25 s ↓	25 s ↑ 25 s ↓
temperature range	(-20°C) to (+40°C)	N / A
safety devices	dual door interlock over - speed detection over - temperature detection automatic internal diagnosis	dual door interlock over - speed detection over - temperature detection automatic internal diagnosis
additional features	speed / RCF swich short time run function sound alert function	speed / RCF swich short time run function sound alert function



CENTRIFUGE - *"clinical"*

- Ideal centrifuge for fast separation of serum, plasma, urea, blood samples and other routine applications in medical, research and chemical laboratories.
- Explosion proof and marked as CE, cTUVus, and FCC. MCA test according to IEC/EN61010-2-10.
- Brushless DC motor accelerates the rotor to the set speed with low vibration and also with a quiet operation less than 56 dB noise level.
- User friendly large LCD display enables easy setting and reading of the funtional parameters.
- Both RPM and RCF can be set and displayed. The parameters can be modified after the set speed is reached.
- Starts and reaches a maximum speed of 4.500 rpm with max 2.490 RCF in seconds. Speed can be set with an accuracy of +/- 20 rpm.
- Metal casing with low gravity, provides stable and reliable running at maximum speed.
- Timer can be set from 30 seconds to 99 minutes or continuous running. Timer starts once the target speed is reached for more accurate operation time.
- Short spin function is used for quick spins by pressing and holding the "pulse" key.
- Multi voltage design guarantees stable running and high accuracy of speed.
- Featured with a dual door interlock system for twice safety.
- Electronic brake immediately stops when lid opens for user safety. Lid is released automatically when the rotor stops.
- The unique design guarantees stable running and high accuracy of the speed. High strenght rotor and excellent balance technology guarantees a quiet and stable operation.
- Delivered complete with a 8 cavity angled rotor and suitable adaptors to be used with 15 ml conical tubes and all kinds of blood collection tubes.

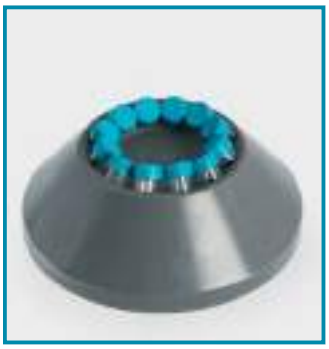
catalogue no	603.05.001
dimensions / weight (mm / kg)	255 x 245 x 140 / 6,0
voltage (V)	220
frequency (Hz)	50
maximum speed (rpm)	4500
speed control (rpm)	increment of 100
maximum RCF (xg)	2490
RCF control (xg)	increment of 100
speed accuracy (rpm)	± 20
noise level (dB)	< 56
run time	30 sec. - 99 min. or continuous
acceleration / braking time (sec)	20 s↑ 20 s↓
safety devices	door interlock over - speed detection automatic internal diagnosis
additional features	sound alert function speed / RCF swich short time run function



Featured with a dual door interlock system for twice safety.

Electronic brake immediately stops when lid opens for user safety.

Lid is released automatically when the rotor stops.



High strength plastic rotor and excellent balance technology to quarantee a quiet and stable operation.

Delivered complete with a 8 cavity angled rotor and suitable adaptors to be used with 15 ml conical tubes and all kinds of blood collection tubes.



User friendly large LCD display offers easy identification of parameters and shows all informations including accumulated running time and last running parameters.

Both RPM or G-force can be set and displayed. Parameters can be modified after the set speed is achieved.

CENTRIFUGE - *"hematocrit"*

- Offers ideal solutions for determination of erithrocytes, determination of the biluribin content and extraction of DNA and RNA.
- Explosion proof and marked as CE, cTUVus, and FCC. MCA test according to IEC/EN61010-2-10.
- Passed EN610-2-101:2002 particular requirements for in vitro diagnostic (IVD) medical equipment.
- The unique design guarantees stable running and high accuracy of the speed. High strength rotor and excellent balance technology guarantees a quiet and stable operation.
- DC motor accelerates the rotor to the set speed with low vibration and a quiet operation less than 60 dB noise level.
- User friendly large LCD display enables easy setting and reading of the funtional parameters.
- Starts and reaches a max speed of 14.000 rpm with max 18.620 RCF in seconds. Speed can be set with an accuracy of +/- 30 rpm.
- Metal casing with low gravity, provides stable and reliable running at maximum speed.
- Timer can be set from 30 seconds to 99 minutes or for continuous running. Timer starts once the target speed is reached for more accurate operation time.
- Short spin function is used for quick spins by pressing and holding the "pulse" key.
- Multi voltage design guarantees stable running and high accuracy of speed.
- Featured with a dual door interlock system for twice safety.
- Electronic brake immediately stops when lid opens for user safety. Lid is released automatically when the rotor stops.

Supplied without rotor. Rotor should be ordered separately

High strength plastic rotor and excellent balance technology to guarantee a quiet and stable operation.



24 cavity rotor for capillary tubes.
catalogue no: 603.06.101



24 cavity rotor for 2 ml/ 1,5 ml and 0,5 ml tubes and related tube inserts.
catalogue no: 603.06.102



catalogue no	603.06.001
dimensions / weight (mm / kg)	280x364x266 / 12
voltage (V)	220
frequency (Hz)	50 / 60
maximum speed (rpm)	14000
maximum RCF (xg)	18620
speed accuracy (rpm)	± 30
increment (rpm)	10
noise level (dB)	< 60
run time	30 sec. - 99 min. or continuous
acceleration / braking time (sec)	20 s↑ 20 s↓
safety devices	door interlock over - speed detection over - temperature detection automatic internal diagnosis automatic rotor identification
additional features	sound alert function speed / RCF swich short time run function



User friendly large LCD display offers easy identification of parameters and shows all informations including accumulated running time and last running parameters.

Both RPM or G-force can be set and displayed. Parameters can be modified after the set speed is achieved.

Quick spin function is used for quick spins by pressing and holding the "pulse" key.



Supplied without rotors and buckets. Rotors and buckets should be ordered separately

CENTRIFUGE - *"multipurpose"*

- High capacity universal centrifuge for multipurpose applications. Offers centrifugetion up to 4 x 100 ml tubes.
- Brushless DC motor accelerates the rotor to the set speed with low vibration and also with a quiet operation less than 58 dB noise level.
- User friendly large LCD display enables easy setting and reading of the funtional parameters.
- Both RPM and RCF can be set and displayed. The parameters can be modified after the set speed is reached.
- Features such as multiple acceleration and brake setting option, automatic rotor identification feature and memory capacity up to 10 different application guarantees reliable and fast centrifugetion.
- Starts and reaches a maximum speed of 15.000 rpm with max 21.380 RCF in seconds. Speed can be set with an accuracy of +/- 20 rpm.
- Timer can be set from 30 seconds to 99 minutes or continuous running. Timer starts once the target speed is reached for more accurate operation time.
- Short spin function is used for quick spins by pressing and holding the "pulse" key.
- Multi voltage design guarantees stable running and high accuracy of speed.
- Featured with a dual door interlock system for twice safety.
- Electronic brake immediately stops when lid opens for user safety. Lid is released automatically when the rotor stops
- Supplied without rotors and buckets. Rotors and buckets should be ordered separately.



User friendly large LCD display enables easy setting and reading of the funtional parameters.



Featured with a dual door interlock system for twice safety. Electronic brake immediately stops when lid opens for user safety. Lid is released automatically when the rotor stops.

catalogue no	603.07.001
dimensions / weight (mm / kg)	445 x 579 x 269 / 36
voltage (V)	220
frequency (Hz)	50 / 60
maximum speed (rpm)	6000
maximum RCF (xg)	4170
speed accuracy (rpm)	± 20
increment (rpm)	10
noise level (dB)	< 56
run time	30 sec. - 99 min. or continuous
acceleration / braking time (sec)	25 s↑ 25 s↓
temperature range	(-20°C) to (+40°C)
safety devices	dual door interlock over - speed detection over temperature detection automatic internal diagnostic
additional features	speed / RCF switch short time run function sound alert function

distilation & filtration & separation & sample preparation

accessories for multipurpose centrifuge



Fix angle rotor for 30 x 15 ml tubes. Max. speed 5000 rpm.
Max. RCF 3300 x g. **Catalogue no: 603.07.101**



Fix angle rotor for 6 x 50 ml tubes. Max. speed 6000 rpm.
Max. RCF 4610 x g. **Catalogue no: 603.07.102**

Swing-out rotor is supplied without adapters and buckets.
Adapters and buckets should be ordered separately



Swing-out rotor for 4 x 100 ml tubes. Max. speed 4000 rpm.
Max. RCF 2830 x g. **Catalogue no: 603.07.103**



Adapter for swing-out rotor for 4 x 15 ml tubes. (4 pieces should be ordered for 1 rotor) **Catalogue no: 603.07.104**



Adapter for swing-out rotor for 2x 50 ml tubes. (4 pieces should be ordered for 1 rotor) **Catalogue no: 603.07.105**



Adapter for swing-out rotor for 1 x 100 ml tubes. (4 pieces should be ordered for 1 rotor) **Catalogue no: 603.07.106**

distilation & filtration & separation & sample preparation



Light duty homogenizer is supplied without bosshead, clamp, stand and rotor/stator set.

Bosshead manufactured from steel with opening distance of 0 - 20 mm.
cat. no: 615.01.012

Stirrer stand is made from powder coated cast steel.

Unique base design offers very stable holding of the assembled stirrer and also possibility of getting close to the stand rod.

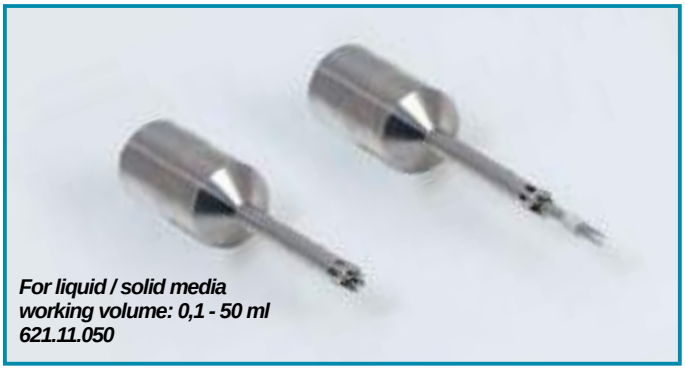
Supplied complete with 12 mm diameter st. steel support rod.
cat. no: 049.09.180

Bosshead clamp is specially suitable to hold light duty homogenizer.
cat. no: 621.11.103

HOMOGENIZER - *"light duty"*

- Practical solution if mixing, emulsification, shredding or chopping is required for small samples.
- Easy to hold due to the light weight for one hand operation. Can be used both hand-held or post mounted.
- High torque motor with a variable speed adjustment enables rapid and effective disruption of a wide range of samples.
- Flexible configuration of different rotors and stators enables the homogenisator adaptive to most applications.
- Can rapidly homogenize samples inrange 0,1 ml to 50 ml or 1 ml - 250 ml of liquid depending on the rotor/stator type.
- During operation, the sample is drawn into the core of the homogenizer.
- The material is repeatedly cycled through narrow slits in the probe where it is rapidly disintegrated by high shear.
- Maximum speed of 30.000 rpm rate reduces processing time significantly.
- Complete homogenization of samples is usually achieved in a few seconds. Reliable results are assured with extremely high presicion.
- Smooth motor drive makes working very safe and comfortable.
- Smooth acceleration also prevents unnecessary spills. An overload protection feature increases the life span of the motor.
- Shafts, rotors and stators are constructed of quality AISI 316 stainless steel which is inert to agressive solutions
- Assembly and disassembly of rotors can be done without requirement of special tools.
- Shafts, rotors, stators are not supplied as a standard accessory. These should be ordered separately.
- Speed control at 6 stages as 8.000, 12.000, 15.000, 18.000, 22.000, 30.000 rpm.

catalogue no	621.11.001
dimensions / weight (mm / kg)	46 x 55 x 230 / 0,6
motor type	carbon brush motor
power (W)	160
voltage (V)	220
frequency (Hz)	50
working volume (ml)	0,1 - 50 with shaft 621.11.050
working volume (ml)	1 - 250 with shaft 621.11.250
speed range (rpm)	8000 - 30000
speed control	6 stage
max. circum. speed (m/sec)	6,3 - 14
max. viscosity (mPas)	5000
overload protection	no
protection class	IP 20
permissible ambient Temperature (°C)	0 - 40
permissible relative humidity (%)	85
noise level (dB)	< 54
optional accessories	stand & bosshead & various shafts



For liquid / solid media working volume: 0,1 - 50 ml 621.11.050



For liquid / solid media working volume: 1 - 250 ml 621.11.250

HOMOGENIZER - *"heavy duty"*

- Offers right solution for dispensing, homogenizing and mixing of samples in larger volumes.
- High torque motor with a variable speed adjustment enables rapid and effective disruption of a wide range of sample
- Flexible configuration of different rotors and stators enables the homogenisator adaptive to most applications.
- Can rapidly homogenize samples in 10 ml to 8.000 ml of liquid depending on the rotor/stator type.
- During operation, the sample is drawn into the core of the homogenizer.
- The material is repeatedly cycled through narrow slits in the probe where it is rapidly disintegrated by high shear power.
- Maximum speed of 30.000 rpm rate reduces processing time significantly.
- Complete homogenization of samples is usually achieved in a few seconds.
- Reliable results are assured with extremely high presicion.
- Smooth motor drive makes working very safe and comfortable.
- Smooth acceleration also prevents unnecessary spills. An overload protection feature increases the life span of the motor.
- Shafts, rotors and stators are constructed of quality AISI 316 stainless steel which is inert to agressive solutions.
- Assembly and disassembly of rotors can be done without requirement of special tools.
- Shafts, rotors, stators are not supplied as a standard accessory. These should be ordered separately.
- Speed control at 6 stages as 10.000, 12.000, 15.000, 18.000, 22.000, 30.000 rpm.



Heavy duty homogenizer is supplied without bosshead, clamp, stand and rotor/stator set.

Bosshead manufactured from steel with opening distance of 0 - 20 mm.
cat. no: 615.01.012

Stirrer stand is made from powder coated cast steel.

Unique base design offers very stable holding of the assembled stirrer and also possibility of getting close to the stand rod.

Supplied complete with 14 mm diameter st. steel support rod.
cat. no: 049.09.250

Bosshead clamp and beaker clamp are specially suitable to hold heavy duty homogenizer.
cat. no: 621.12.103



For suspension / emulsion working volume: 10 - 5000 ml
621.12.905



For stringy / fibrous working volume: 100 - 8000 ml
621.12.908

catalogue no	621.12.001
dimensions / weight (mm / kg)	70 x 70 x 255 / 1,3
motor type	carbon brush motor
power (W)	500
voltage (V)	220
frequency (Hz)	50
working volume (ml)	10 - 5000 with shaft 621.12.905
working volume (ml)	100 - 8000 with shaft 621.12.908
speed range (rpm)	10000 - 30000
speed control	6 stage
max. circum. speed (m/sec)	22,7 - 36
max. viscosity (mPas)	10000
overload protection	yes
protection class	IP 20
permissible ambient Temperature (°C)	0 - 40
permissible relative humidity (%)	85
noise level (dB)	< 72
optional accessories	stand & bosshead & various shafts

HOMOGENIZER - *"paddle blender"*



- Designed for homogenisation of samples while isolating them from any possible contamination.
- Widely used in food, feed, cosmetics and pharmaceutical laboratories for homogenization process during microbiological or toxicological testing.
- The two stainless steel paddles gently, but thoroughly homogenize the sample with the diluent and microorganisms are forced to join the liquid phase.
- The paddle effective working distances can be adjusted with the help of a screw control at the back side of the blender.
- High quality enduring motors ensure a safe and efficient homogenization with minimum sound level.
- Samples are prepared in disposable sterile bags so that the cross contamination is avoided.
- The UV light source in the homogenization chamber also reduces the risk of cross contamination.
- Heater control enables a temperature operating range from ambient to 50°C.
- Windowed door ensures permanent control over blending process for perfect results.
- Featured with a LCD control panel with programmable settings. Time and speed can be adjusted according to the sample type.

catalogue no	608.01.002
dimensions / weight (mm / kg)	420 x 230 x 330 / 19
voltage (V)	220
frequency (Hz)	50 / 60
power (W)	500
capacity (ml)	3 - 400
time control (min.)	0,1 - 99
paddle speed (times/sec)	3 - 12
UV sterilisation	yes
door with window	yes
permissible ambient temperature (°C)	0 - 60
paddle distance adjustment	yes / variable 0 - 40 mm



Featured with a LCD control panel with programmable settings. Time and speed can be adjusted according to the sample type.



Paddle protectors on the paddles protect the window from breakage and increase the effectiveness of the blending.



The paddle effective working distances can be adjusted with the help of a screw control at the back side of the blender.



Homogenizer (paddle blender) accesories can be selected from ***catalogue page 177.***

BAGS - "homogenization" - "sterile"

➤ Manufactured from polyethylene. Specially designed for fast and effective crushing of solid samples to the liquid phase.

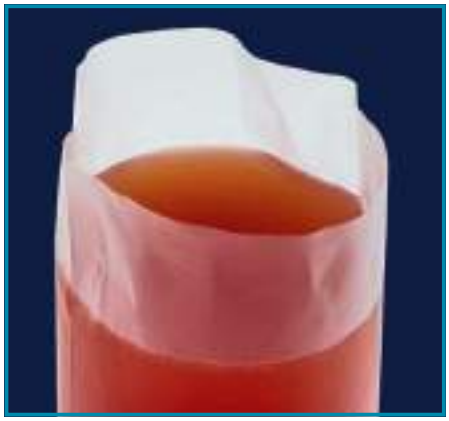
➤ Sterilized with gamma irradiation, **free of RNase, DNase, and pyrogene.**

➤ Even at low temperatures they maintain the stability of the specimen's microbiological status.

➤ While working with infectious samples, bags can be sealed by any ordinary bag sealer to prevent the escape of aeresols.

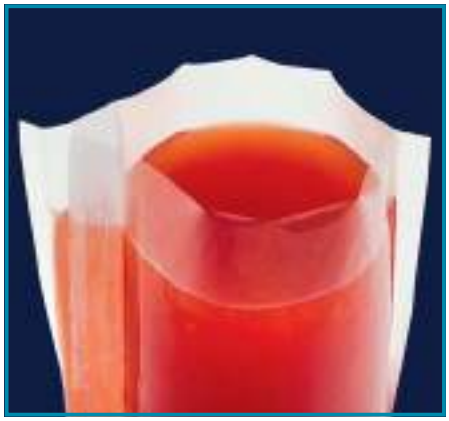
➤ **Alternative 3 products:**
- ➤ **Bag without filter**
- ➤ **Bag with side filter**
- ➤ **Bag with full filter**

bag with no filter



Bags without filter are generally used for standard and common practises.

bag with side (lateral) filter



Bags with side (lateral) filter divides the bag in 2 non-equal compartments. They are suitable for small samples such as PCR applications.

bag with full (page) surface filter



Bags with full (page) filter divides in 2 equal compartments. Solid sample remains in it's side, while the liquid phase moves to the other side.

catalogue number	bag type	volume	width x height	wall thickness	pore size	packing specifications
039.23.003	no filter	400 ml	190 x 300 mm	70 microns	-	50 pcs / pack - 500 pcs / case
039.23.002	side filter	400 ml	190 x 300 mm	70 microns	< 250 microns	50 pcs / pack - 500 pcs / case
039.23.001	full filter	400 ml	190 x 300 mm	70 microns	< 280 microns	50 pcs / pack - 500 pcs / case

ACCESSORIES - "for homogenization bags"

➤ **BAG STAND - "stainless steel":** Manufactured from AISI 304 grade stainless steel for hanging homogenization bags.

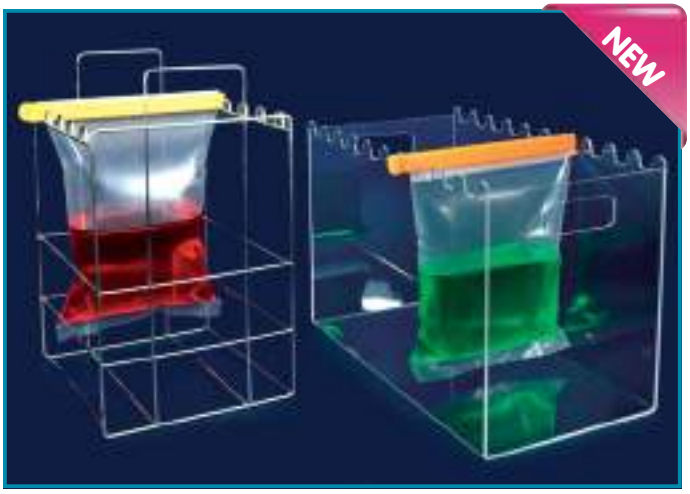
➤ Can carry 4 homogenisation bags of any type.

catalogue number	pack quantity
608.01.101	1 piece

➤ **BAG STAND - "acrylic":** Manufactured durable acrylic for hanging homogenisation bags.

➤ Can carry 10 homogenisation bags of any type.

catalogue number	pack quantity
608.01.102	1 piece



BAG LATCHS

➤ **BAG LATCHS:** Manufactured from a special grade of polypropylene for quick closing of the bags. Practical closing system guarantees perfect and tight closure of the bags.

➤ Color coded in 4 different colors for fast and easy identification.

catalogue number	pack quantity
039.35.200	set of 4



LABORATORY BLENDER SET









Easily cleanable stainless steel cutting blade.

blender set parts

- 400 W powerfull motor ensuring perfect blending.
- 1500 ml capacity stainless steel jar with handle and lid.
- 1500 ml capacity heat resistant glass jar with handle and lid.
- 300 ml capacity plastic grinder jar with lid.

catalogue no	602.21.001
voltage (V)	220
frequency (Hz)	50
power (W)	400
glass jar - capacity (ml)	1500
steel jar - capacity (ml)	1500
grinder jar - capacity (ml)	300
volume graduation	at only for glass jar
pulse function	yes
speed function	2
permissible ambient temperature (°C)	0 - 50
Permissible Relative Humidity (%)	80

- Blender set is ideal for grinding, mixing, and dispersion of large variety of products.
- Powerfull blender motor ensures fast, perfect and homogenious blending.
- Two step speed control and pulse function provide excellent results during blending and mixing.
- Stainless steel unique formed cutting blade guarantees also perfect dry blending and is easy to clean after use.
- Provides highest standing stability due to the stable engine housing.
- Non-slipping rubber feet prevents the blender from “walking” during operation.
- Supplied as a set of blender housing and 3 blender jars.

LABORATORY KETTLE



Monoblock seamless stainless steel boilling vessel.
Insulated heating elements and perforated pouring filter.

- Kettle with 1500 ml volume and 1500 W heating.
- Featured with automatic stop after heating, on/off switch with indication lamp, fully insulated heating element and cord storage.
- Monoblock seamless stainless steel vessel with insulated heating element and perforated pouring filter.

catalogue no: 611.01.001



ISOLAB Laborgeräte GmbH

DIN EN ISO CERTIFIED 9001







cleaning & safety protection & sterilization





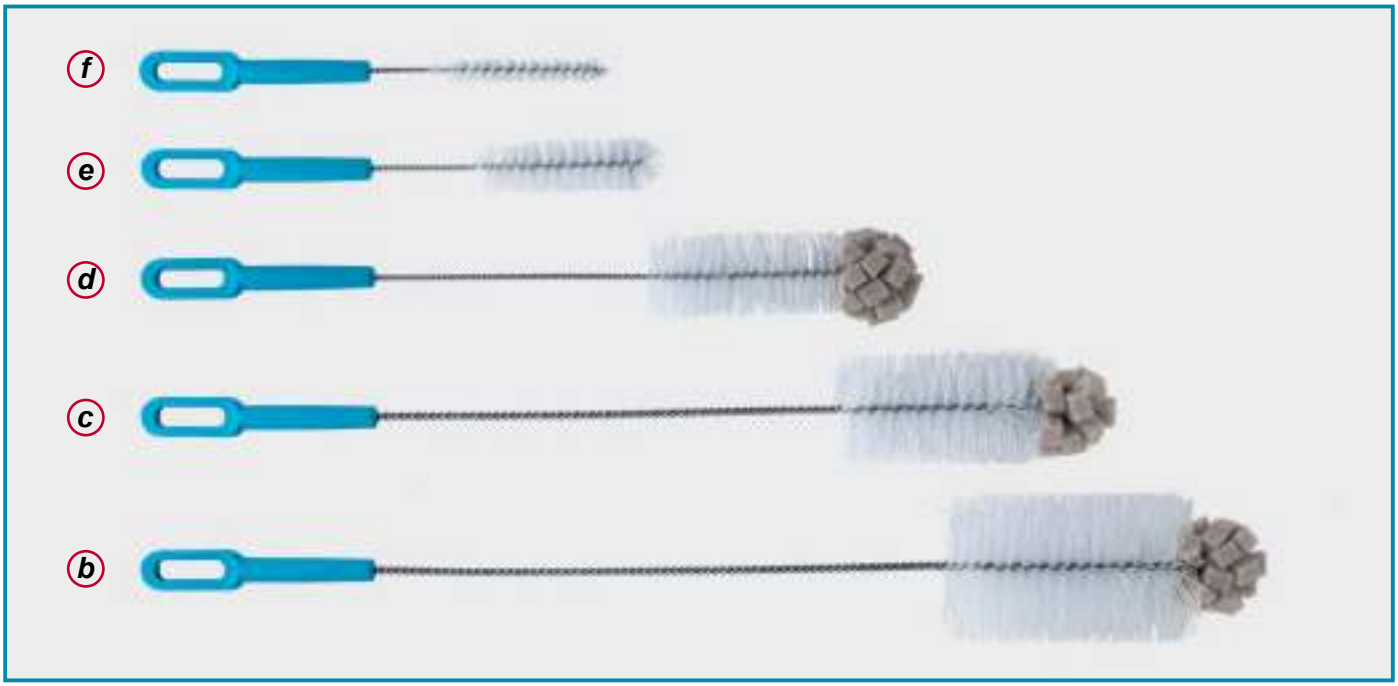


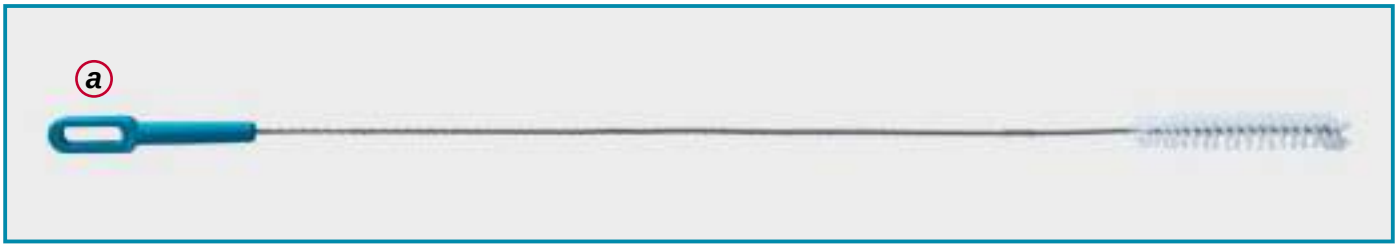






LABORATORY BRUSH - *"natural fibre / perlon"*





- Excellent tools for washing and cleaning of all type of laboratory bottles, flasks, tubes, condensers, burettes etc.
- Brush material is manufactured from highest quality of fibre/perlon for long life cycle.
- Brush stem is manufactured from corrosion proof twisted steel wire.
- Brush handle is manufactured from polypropylene and offers extreme easy handling and use of the brush.
- Unique handle design enables hanging of the brush to a convenient place for easy reach.
- Spherical sponge top part enables access to every corner of the labware and guarantees perfect cleaning results.



Unique handle design enables hanging of the brush to a convenient place on the wall for easy reach.



Spherical sponge top part enables access to every corner of the labware and guarantees perfect cleaning results.



Brush material is manufactured from highest quality of fibre/ perlon for best results and long life cycle.

catalogue number	brush code	product descriptions	stem length	brush diameter	brush length	pack quantity
071.02.001	a	Burette and tubings cleaning brush	845 mm	20 mm	125 mm	1 piece
071.02.002	b	Large size bottle cleaning brush	460 mm	70 mm	130 mm	1 piece
071.02.003	c	Medium size bottle cleaning brush	460 mm	50 mm	110 mm	1 piece
071.02.004	d	Small size bottle cleaning brush	380 mm	40 mm	110 mm	1 piece
071.02.005	e	Common test tubes cleaning brush	295 mm	25 mm	100 mm	1 piece
071.02.006	f	Narrow test tubes cleaning brush	235 mm	12 mm	80 mm	1 piece

LABORATORY BRUSH - *"non - absorbant foam"*

➤ Manufactured from non-absorbant reinforced foam which will not absorb water and not become soggy even after multiple use. ➤ Essentially much longer lasting than other common brushes. ➤ Cleans laboratory glassware with minimum effort and maximum efficiency. ➤ Will not chip, break or scratch laboratory glassware, can also be safely used on plastic labware. ➤ Ergonomically designed wide handles enable easy rotating of brush.

LABORATORY BRUSH - *"flexible"*

➤ Specially recommended for labware with narrow neck and wider base such as flasks, erlenmeyers, bottles etc.

➤ Feautured with a flexible body which perfectly adapts to the base and interior wall shape of the vessel to be cleaned.

➤ Offers perfect cleaning also for large size labwares with it's total lenght 370 mm and brush diameter 20 mm.



catalogue number	pack quantity
071.05.001	1 piece

LABORATORY BRUSH - *"round head"*



➤ Specially recommended for all labware with cylindrical form such as cylinders, beakers, vertical tanks and other similar flasks.

➤ Guarantees perfect cleaning with it's sprerical cleaning brush part that touches every surface and corner of labware's interior.

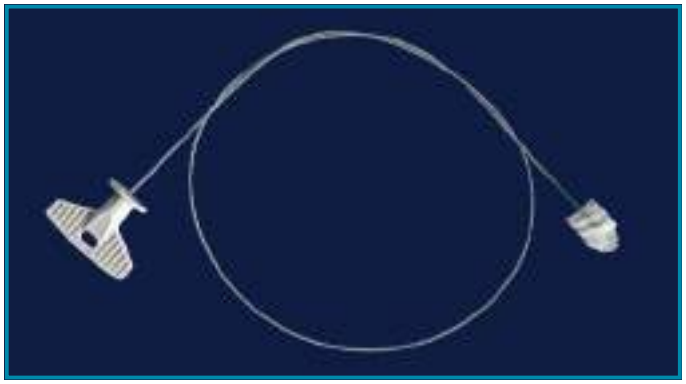
catalogue number	brush size	brush diameter	total length	pack quantity
071.05.002	short	60 mm	350 mm	1 piece
071.05.003	long	70 mm	400 mm	1 piece

LABORATORY BRUSH - *"for tubings"*

➤ Specially recommended for hoses, tubings with diameter from 12 mm to 25 mm.

➤ Perfectly adapts to the rounding of the tube and flexible long handle enables even the round labware can be cleaned effectively.

catalogue number	brush diameter	total length	pack quantity
071.05.005	20 mm	1200 mm	1 piece





LABORATORY BRUSH - *"for tubes"*

➤ Specially recommended for tubes due to the unique design which fits to all tube sizes from the smallest to the largest diameter.

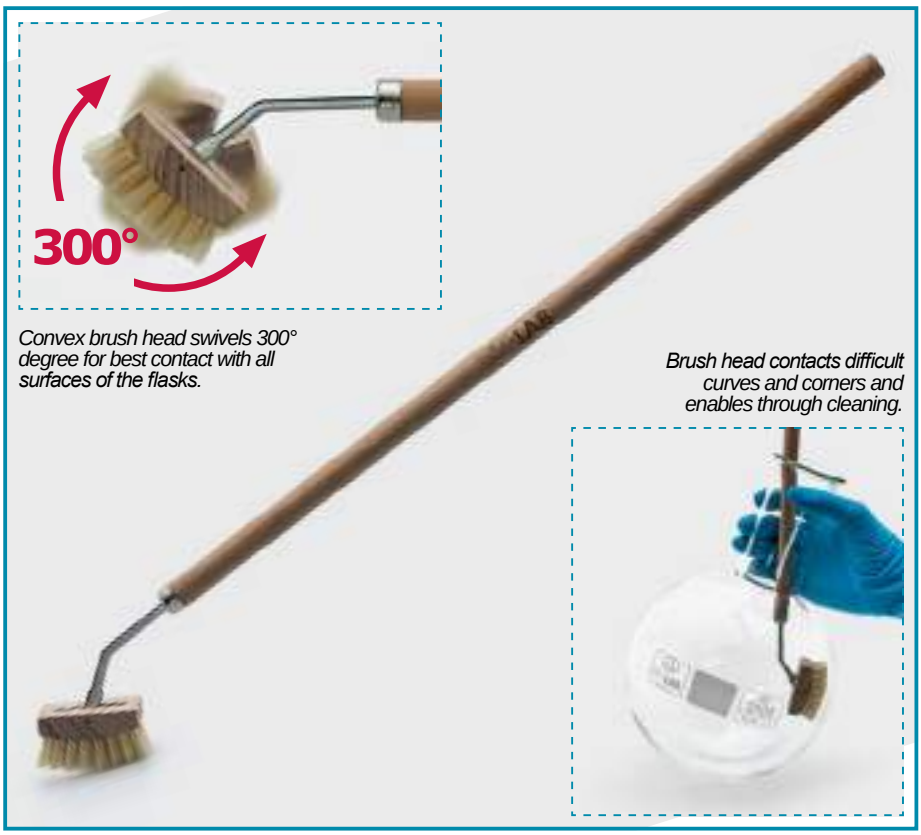
➤ Consists of two parallel cleaning brush rods hold be a single head. The rods can be pulled and moved to sides.

➤ This feature enables the contact of the brush all over the interior surface of different tubes with different diameters.

➤ This tube brush with it's unique features guarantees fast and very effective cleaning of all tubes with different size and lenght.

catalogue number	brush diameter	total length	pack quantity
071.05.004	25 mm	180 mm	1 piece





Convex brush head swivels 300° degree for best contact with all surfaces of the flasks.

Brush head contacts difficult curves and corners and enables through cleaning.

LABORATORY BRUSH
"hinged & swivel head"

- Specially recommended for curved and cornered shaped labware such as round bottom flasks.
- Uniquely designed convex swiveling brush head gets contact with all over the surface of the flask including difficult curves and corners and enables thorough cleaning.
- The brush head has a slightly convex shape for fast and effective cleaning even also at heavy soiled flasks.
- Strong yet flexible bristles provide long lasting trouble free life cycle. Good grip due to the solid and long wooden handle.
- The swivel brush part fits through NS 29/32 or larger or any non tapered neck with a diameter 24 mm or larger.
- 360 mm lenght brush handle offers easy touch of the bottoms of larger size flasks.

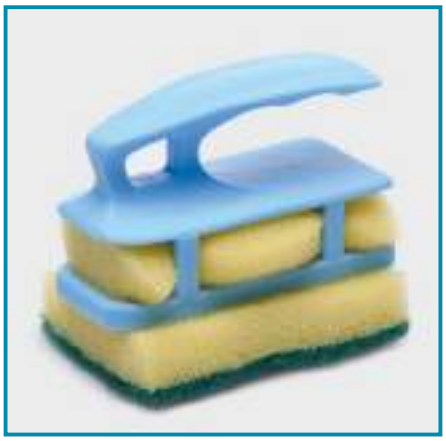
catalogue number	swivel head size	handle length	pack quantity
071.03.001	21x44x24 mm	360 mm	1 piece



BRUSH
"for intensive cleaning"

- Specially recommended for all applications which require intensive cleaning.
- Brush part consists a mixture of natural hair and very soft bristles providing long lasting trouble free life cycle.
- Ergonomic handle offers the best grip option.
- Can also be used for cleaning larger surfaces such as benches, floor.

catalogue number	pack quantity
071.06.001	1 piece



BRUSH
"for dish washing"

- Specially recommended for all applications such as dish washing and intensive cleaning of large surfaces.
- Brush part consists several layers of sponges with different density and also a scrubbing layer at the bottom line.
- Handle offers the best grip option.

catalogue number	pack quantity
071.06.002	1 piece



Supplied together with 2 spare sponge.



BRUSH - *"hygienical cleaning"*

- Specially recommended for all applications where hygienical cleaning is required.
- Brush part consists of soft bristles for long lasting trouble free life cycle.
- Detergent dispenser at the handle of the brush guarantees an undisturbed continuous use of the brush.
- Pressing the brush head opens dispenser and releases detergent into the brush.

catalogue number	pack quantity
071.06.003	1 piece

CLEANWARE ORGANISER



- Ensures comfort at your lab with its bin at the back which is large enough sponge, wire wool or cleaning wipes.
- Stops the mess at your lab table providing more and convenient space for use.
- The soap dispenser ensures hygienic and practical consumption of liquid detergent.
- Cleanware organizer is supplied without the brushes shown at photo.

catalogue number	pack quantity
071.07.002	1 piece

TISSUES - *"cellulose" - "paper"*



- Manufactured from non-chlorine bleached cellulose as double ply sheets with 195 x 195 mm dimensions.
- Ultra soft, chemically inert, highly absorbent and low lint cellulose offers the best reliable results.
- Specially recommended for wiping and cleaning of labware and also for other use such as cleaning pipettes and slides, wiping small amounts of liquids etc.
- Supplied in a handy dispenser box for hygienic storage and easy removal.

catalogue number	pack quantity
080.65.002	100 pieces

WIPES - *"microfibre"*



- Manufactured from microfibre textile with high tensile strength with 300 x 400 mm dimensions.
- Specially recommended for lifting and trapping dirt from surfaces for fast and efficient cleaning. No chemicals are required during cleaning.
- Absorbs and retains up to 8 times its weight. Can be washable hundreds of times without getting tired.
- Supplied as two wipes: one for glass surfaces, the other for general use.

catalogue number	pack quantity
071.07.003	set of 2

CLEANING TOWEL

- Manufactured from pure cellulose with high degree of water absorbtion.
- Offers cost effective solutions to other alternatives.
- High capacity water absorbtion level guarantees multi-usage of these towels.
- Cut and packed according to the interior dimensions of the towel dispenser.

catalogue number	towel dimensions	pack quantity
080.65.004	230 x 220 mm	200 pieces



TOWEL DISPENSER

- Designed to be used with paper towel dispensers. Can carry 200 towels at one time.
- Paper towels can be pulled from the bottom part for fast and easy dispense.
- Acrylic front panel enables visual control of the towel quantity.
- Can be easily mounted on the wall for practical use.

catalogue number	dimensions	pack quantity
080.67.001	266 x 287 x 107 mm	1 piece



TRAYS - *"polypropylene"*

- Manufactured from polypropylene for multi-purpose use.
- Injection moulded as one piece, durable and featured with a strong rim around the body.
- Usable with food-stuff, hygienic and easy to clean.
- Easily stackable for reducing storage space.

catalogue number	base dimensions	height	pack quantity
062.40.901	183 x 127 mm	50 mm	1 piece
062.40.902	255 x 180 mm	60 mm	1 piece
062.40.905	355 x 245 mm	70 mm	1 piece



TRAYS - *"stainless steel"*

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel for multipurpose use.
- Robust and seamless construction guarantees long life cycle.
- Smooth polished surfaces provide fast and easy cleaning.

catalogue number	base dimensions	height	pack quantity
062.42.910	400 x 500 mm	50 mm	1 piece
062.42.915	450 x 600 mm	50 mm	1 piece
062.42.920	500 x 700 mm	50 mm	1 piece



BUCKET - *"with lid"*

- Manufactured from HD-PE with a uniform wall thickness with impact resistance body.
- Featured with a sturdy carry handle for easy lift and a lid for complete closure of the bucket.

catalogue number	volume	top dia. x height	pack quantity
062.60.901	1 L	120 x 122 mm	10 pieces
062.60.902	2 L	165 x 138 mm	10 pieces
062.60.903	3 L	190 x 132 mm	10 pieces
062.60.905	5 L	210 x 171 mm	10 pieces
062.60.909	9 L	259 x 226 mm	10 pieces
062.60.918	18 L	310 x 275 mm	10 pieces



BUCKET - *"with spout"*

- Manufactured from thick polypropylene which stays hard and solid even used with boiling water.
- Featured with a sturdy carry handle and embossed volume scale inside the bucket wall.

catalogue number	volume	top dia. x height	pack quantity
062.61.909	9 L	265 x 250 mm	1 piece
062.61.914	14 L	302 x 295 mm	1 piece



BUCKET - *"stainless steel"*

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Perfect choice for applications where durability and long-lasting service are mandatory.
- Guarantees high tensile strenght , as well as easy cleaning, sanitizing and sterilisation.

catalogue number	volume	pack quantity
062.62.910	10 L	1 piece
062.62.915	15 L	1 piece



WASTE BINS
"steel & press on lid"

- Manufactured from stainless steel. Ideal for safe and easy disposal of wastes at laboratories.
- Featured with press-on-lid. Lid opens when a slight pressure is on the spring loaded pedal.

catalogue number	volume	pack quantity
062.72.908	8 L	1 piece
062.72.912	12 L	1 piece
062.72.916	16 L	1 piece
062.72.930	30 L	1 piece



WASTE BINS
"polypropylene & press on lid"

- Manufactured from robust polypropylene. Ideal for safe and easy disposal of wastes at laboratories.
- Featured with press-on-lid. Lid opens when a slight pressure is on the spring loaded pedal.

catalogue number	volume	pack quantity
062.71.907	7 L	1 piece
062.71.911	11 L	1 piece
062.71.918	18 L	1 piece
062.71.930	30 L	1 piece



WASTE BINS
"polypropylene & swing lid"

- Manufactured from robust polypropylene. Ideal for safe and easy disposal of wastes at laboratories.
- Featured with a swing lid. Lid opens back/forward with a gentle push. Lid comes to original position after use.

catalogue number	volume	pack quantity
062.70.905	5 L	1 piece
062.70.918	18 L	1 piece
062.70.935	35 L	1 piece
062.70.950	50 L	1 piece



BAG STAND
"adjustable height"

- Manufactured from stainless steel for use with the bags with catalogue no **039.30.001.**
- Ideal for disposal of small objects during daily use at laboratories.
- Due to it's compact size bag stand does not cover space on the laboratory bench.
- The height of the stand is adjustable with the help of adjusting screw.

catalogue number	stand diameter	pack quantity
062.30.002	125 ± 5 mm	1 piece





BAGS - *"autoclavable" - "plain"*

- Manufactured from a special grade of polypropylene with high tear and puncture resistance.
- Commonly used for safe disposal of contaminated laboratory waste such as used petri dishes, test tubes, sample vials, cultureware and other biohazardous products.
- Also offers an alternative for storing and transportation of various products.
- These bags can resist pressure differences during autoclaving.
- Bags should be left open during autoclaving.
- Strong side seams stand safe under pressure or weight and guarantee safe holding of bag content.

Other technical specifications can be seen at catalogue page no 124.



BAGS - *"autoclavable" - "imprinted"*

- Manufactured from a special grade of polypropylene with high tear and puncture resistance.
- Commonly used for safe disposal of contaminated laboratory waste such as used petri dishes, test tubes , sample vials, cultureware and other biohazardous products.
- Also offers an alternative for storing and transportation of various products.
- Can resist pressure differences during autoclaving.
- Bags should be left open during autoclaving.
- Strong side seams stand safe under pressure or weight and guarantee safe holding of bag content.
- On the bag surface a large writing area and necessary warnings are imprinted.

Other technical specifications can be seen at catalogue page no 124.



BAGS - *"with zip-lock" - "with write - on patch"*

- Manufactured from clear and robust polyethylene for to be used with chemical, medical, food, biological samples of liquid, powder, solid and paste form.
- Non-sterile, ideal for dust-free storing, collecting, protecting and shipping of specimens and samples.
- Write - on white patch offers a practical area for writing specific marks and notes.
- Rim channel seal can be opened and closed repeatedly with the guarantee of leak-proof closure.

Other technical specifications can be seen at catalogue page no 125.

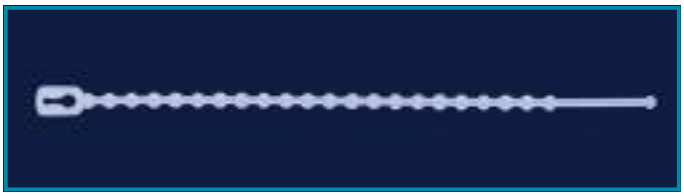


BAG SEALERS

- Can easily seal both polypropylene and polyethylene bags and sheets and foils.
- Depending on the thickness of the bag material, welding can be done maximum in few seconds.
- Heat control knob ensures safe and guaranteed sealing.
- Featured with a robust handle for better control of applied pressure.
- Guarantees extra safety since the heating element hot only during sealing.

Other technical specifications can be seen at catalogue page no 126.







Offers very tight sealing of the bags. Cannot be opened again once closed.



Offers very tight sealing of the bags. Can be opened again once closed.

BAG TIES

- Manufactured from a special grade of polyamide with raster strips for single use.
- Offers very tight sealing of the bags. Ties cannot be opened again once closed.
- Guarantees high tensile strength, high chemical resistance also thermic resilient.

Other technical specifications can be seen at catalogue page no 126.

BAG LOCKS

- Manufactured from a special grade of polypropylene for quick closing of the bags.
- Unique design enables damage free opening and multiple use of the same bag lock.

Other technical specifications can be seen at catalogue page no 126.



BAG LATCHES

- Manufactured from a special grade of polypropylene for quick closing of the bags.
- Practical closing system guarantees perfect and tight closure of the bags.
- Color coded in 4 different colors for fast and easy identification.

Other technical specifications can be seen at catalogue page no 126.



Draining racks are supplied without packs pegs. Pegs should be ordered separately.

DRAINING RACKS

➤ These proffessional draining racks cover all the cleaning demands of a modern laboratory.

➤ Manufactured from water resistant, sturdy polyresin thick plate for life time usage.

➤ **Alternative 2 racks:**

- ➤ **Medium size rack with 72 peg compartments**
- ➤ **Large size rack with 122 peg compartments**

➤ The collecting tray at the bottom part collects the drained water and dispens with the help of a hose supplied as a standard to the rack.

➤ Supplied complete with wall mounting kit, draining hose and fixing template.

➤ Draining racks are supplied with 16 small and 16 large pegs. Please kindly order for more pegs seperately.



The collecting tray at the bottom part collects the drained water and dispens by a hose supplied as a standard to the rack.

catalogue number	rack width	rack height	peg quantity	pack quantity
071.01.002	500 mm	610 mm	72	1 piece
071.01.003	500 mm	1010 mm	122	1 piece

DRAINING PEGS



➤ Pegs are manufactured from ABS which is extremely resistant side effects.

➤ **Alternative 2 pegs:**

- ➤ **Large size pegs in triangular form for to carry glassware wider than 15 mm neck diameter.**
- ➤ **Small size pegs in round form suitable to carry glassware wider than 6 mm neck diameter.**

➤ Pegs are supplied disassembled and can easily be inserted into the related compartments on the draining rack.

➤ If necessary can be disambled in few seconds and replaced another suitable hole. This feature enables easy cleaning option of the pegs and also offers flexibility of placing different size glassware on the rack panel.

catalogue number	peg type	peg length	pack quantity
071.01.101	large	120 mm	16 pieces
071.01.102	small	120 mm	16 pieces

DRAINING RACKS



➤ Manufactured from high quality, corrosion resistant chromated steel with overall dimensions of 475 x 310 x 310 mm.

➤ Double shelve design offers practical use and best draining with all size of glasswares and other laboratory items.

➤ The tray at the bottom layer helps the collection of the drained water. The basket attached to the rack can be used to store small objects such as spoons and spatulas.

catalogue number	dimensions	pack quantity
071.01.004	475 x 310 x 310 mm	1 piece

PIPETTE WASHING SET

- Operates with syphon system and offers a gentle and effective cleaning of pipettes up to 600 mm height.
- Consists of two parts as: cleaning & washing unit and pipette holding basket unit.
- Easy to use; first fill the tank with water. The access water will be automatically drained out through a syphon system.
- Then insert the pipette basket filled with dirty pipettes ready for cleaning.
- The contaminated dirty water runs out of the system through a pipe line attached to the main body.

catalogue number	pack quantity
071.10.001	1 piece



ULTRASONIC PIPETTE CLEANER

- Consists of a stainless steel pipette basket and a specially designed acrylic bath which provides visual control of the cleaning process.
- Offers a gentle yet effective cleaning option for 0,5 - 20 ml pipettes by ultrasonic waves.
- Guarantees most effective cleaning where the intricate fine parts are stained and can not be easily removed by an ordinary laboratory brush.
- Rapidly cleans and rinses the pipettes free from first, dust and all contaminants.
- Removes contaminants 10 times more effectively than classical cleaning methods. Definitely prevents glass breakage if used correctly.
- Even very narrow diameter pipettes can be cleaned definitely.
- Guarantees low consumption of water and cleaning detergent with the help of automatic water supply and drain of access water by syphon principle.
- All metal parts that contact to cleaning liquid are manufactured either from acrylic, or from stainless steel as resistant to rusting.
- Featured with a time switch which controls the operation time from 5 minutes to 120 minutes.
- Ultrasonic pipette cleaner is supplied with the pipette basket.

catalogue no	621.21.001
external dimensions (mm)	200 x 200 x 950
tank diameter (mm)	155
tank height (mm)	650
tank capacity (lt)	12
voltage / frequency (V / Hz)	220 / 50
ultrasonic power (W)	180
ultrasonic frequency (kHz)	40
time control (min.)	5 - 120



Ultrasonic pipette cleaner is supplied with the basket.



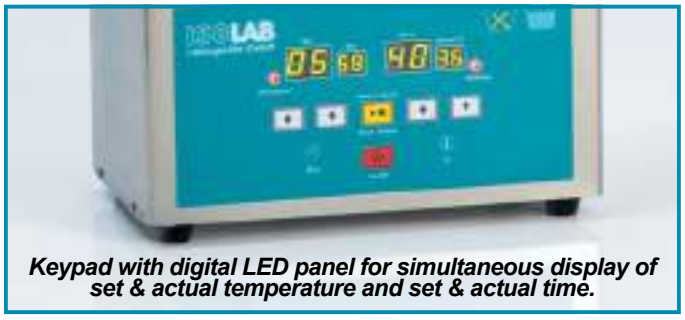
ULTRASONIC CLEANERS - *"standard"*

- Offer ideal solutions for intensive and gentle cleaning of glassware, metal parts, electronic components, instruments.
- Featured with robust stainless steel vibration tank and housing with handles to carry on both sides. Tubs made of cavitation – proof stainless steel.
- Assures uniform, precision cleaning over the entire surface, and consistent cavitation that reaches and cleans even tiny crevices on the parts.
- Membrane keypad with digital LED panel for simultaneous display for set & actual temperature and set & actual time.
- Memory function keeps settings in memory for frequent and repeated operations.
- Pause function gives an option to pause and restart the operation at any desired moment.
- High heating performance ensures short warm-up period.
- Heating can be controlled up to 80°C with 1°C increments.
- Time control is possible between 1-60 minutes with 1 minute increments.
- Delivered complete with stainless steel lid and stainless steel "standard density" basket.
- Ultrasonic cleaners from 10 to 28 L are featured with a drainage valve for removal of the water from the tank.

catalogue no	621.05.001	621.05.003	621.05.006	621.05.010	621.05.015	621.05.022	621.05.028
ext. dimensions (mm)	175 x 155 x 225	265 x 165 x 225	365 x 175 x 285	420 x 265 x 285	365 x 340 x 365	540 x 340 x 365	540 x 340 x 365
tank dimensions (mm)	150 x 138 x 65	238 x 138 x 100	302 x 152 x 150	302 x 239 x 150	325 x 295 x 150	502 x 298 x 150	502 x 298 x 200
tank volume (L)	1,3	3,0	6,0	10,0	15,0	22,0	28,0
ultrasonic power (W)	60	120	180	240	360	360	480
frequency (kHz)	40	40	40	40	40	40	40
heating power (W)	60	180	300	300	500	600	600
max. heating (°C)	80	80	80	80	80	80	80
heating accuracy (°C)	± 1	± 1	± 1	± 1	± 1	± 1	± 1
time control (min)	1 - 60	1 - 60	1 - 60	1 - 60	1 - 60	1 - 60	1 - 60
drainage valve	N/A	N/A	N/A	yes	yes	yes	yes
standard accesories	basket & lid	basket & lid	basket & lid	basket & lid	basket & lid	basket & lid	basket & lid



Ultrasonic baths are delivered with stainless steel standard density basket and stainless steel lid with handle.



Keypad with digital LED panel for simultaneous display of set & actual temperature and set & actual time.



Ultrasonic cleaners from 10 to 28 L featured with a drainage valve for removal of dirty water.



Featured with sturdy. stainless steel handles for safe and easy hold of the ultrasonic bath.

BASKET - *"high density"*

➤ Manufactured from stainless steel wires with small hole spacing.

➤ They offer a hole spacing of 3,5 x 7 mm suitable for cleaning small size objects.

➤ Handles on both sides offer easy and practical handling of the basket.

catalogue number	bath volume	pack quantity
621.05.101	1,3 L	1 piece
621.05.103	3,0 L	1 piece
621.05.106	6,0 L	1 piece
621.05.110	10,0 L	1 piece
621.05.115	15,0 L	1 piece
621.05.122	22,0 L	1 piece



ULTRASONIC CLEANER DETERGENT



➤ Higly effective special cleaner for cleaning items in ultrasonic baths intensively.

➤ Removes distillation deposits, tars, grease, resins, adhesives, fats, oils, metal oxides, mineral dirt and similar soiling without leaving traces only with consumption of less than 2 % of the tank volume.

➤ Supports ultrasonic cleaning process, ideal for washing operations which are normally too difficult for ultrasonics alone.

➤ Extremely gentle on ware with almost neutral pH value. Fully water soluble, low-foaming, low phosphate content, non-combustible, no gas formation, non-toxic, biodegradable.

➤ Although can be used cold water, using in hot water intensifies and accelerates the cleaning effect.

➤ It is recommended that new solution is added twice a day for 8 hours working period.

catalogue number	pack specs	pack quantity
621.01.101	P.P bottle	1 L

CLEANING PASTE - *"for stainless steel tanks"*



➤ After continuous working with the ultrasonic baths the tanks might get dirty and need refitting by intensive cleaning and polishing.

➤ Cleaning paste cleans the interior of the tank and makes it as brand new.

➤ Just pour some amounts on a soft pad and rub the interior intensively. Later wash the remaning residue.

catalogue number	pack quantity
621.01.102	1 piece



ULTRASONIC BATH - *"for spectacles"*

➤ Designed for intensive yet gentle cleaning of small size objects such as spectacles.

➤ Assures uniform, precision cleaning over the entire surface.

➤ Featured with a digital LED panel for set & actual time.

catalogue no	621.08.001
external dimensions (mm)	205 x 145 x 125 / 0,9 kg
tank dimensions (mm)	168 x 110 x 52
tank volume (L)	0,6
voltage (V)	110 - 220
frequency (Hz)	50 / 60
ultrasonic power (W)	35
frequency (kHz)	42
time control (sec)	60 / 120 / 180 / 240 / 300



ULTRASONIC CLEANERS
"with sweep & degass & pulse functions"

- These ultrasonic cleaners are features with "sweep", "degass" and "pulse" functions. Most specks are similar to standard ultrasonic cleaners.
- They also offer ideal solutions for intensive and gentle cleaning of glassware, metal parts, electronic components, instruments.
- Featured with robust stainless steel vibration tank and housing with handled to carry on both sides. Tubs made of cavitation - proof stainless steel.
- Assures uniform, precision cleaning over the entire surface, and consistent cavitation that reaches and cleans even tiny crevices on the parts.
- Membrane keypad with digital LED panel for simultaneous display for set & actual temperature and set & actual time.
- Memory function keeps settings in memory for frequent and repeated operations.
- Pause function gives an option to pause and re-start the operation at any desired moment.
- High heating performance ensures short warm-up period.
- Heating can be controlled up to 80°C with 1°C increments.
- Time control is possible between 1-60 minutes with 1 minute increments.
- Delivered complete with stainless steel lid and stainless steel "standard density" basket.

catalogue no	621.06.003	621.06.006	621.06.010	621.06.015	621.06.022	621.06.028
ext. dimensions (mm)	265 x 165 x 225	365 x 175 x 285	420 x 265 x 285	365 x 340 x 365	540 x 340 x 365	540 x 340 x 365
tank dimensions (mm)	238 x 138 x 100	302 x 152 x 150	302 x 239 x 150	325 x 295 x 150	502 x 298 x 150	502 x 298 x 200
tank volume (L)	3,0	6,0	10,0	15,0	22,0	28,0
ultrasonic power (W)	160	240	320	480	480	640
frequency (kHz)	37	37	37	37	37	37
heating power (W)	150	270	310	470	470	620
max. heating (°C)	80	80	80	80	80	80
heating accuracy (°C)	± 1	± 1	± 1	± 1	± 1	± 1
time control (min)	1 - 60	1 - 60	1 - 60	1 - 60	1 - 60	1 - 60
drainage valve	N/A	N/A	yes	yes	yes	yes
standard accesories	basket & lid	basket & lid	basket & lid	basket & lid	basket & lid	basket & lid



Ultrasonic baths are delivered with stainless steel standard density basket and stainless steel lid with handle.



Keypad with digital LCD panel for display for set & actual temp. and set & actual time.



Ultrasonic cleaners from 10 to 28 L featured with a drainage valve for removal of used water.



Featured with sturdy stainless steel handles for safe and easy hold of the ultrasonic bath.

BATHS - *"ultrasonic" - "with sweep & degass & pulse functions"*

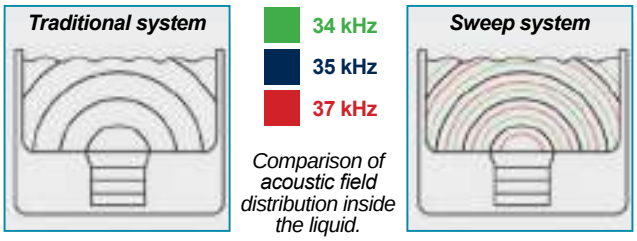
New generation ultrasonic cleaners are features with **"sweep", "degass"** and **"pulse"** functions.

sweep function

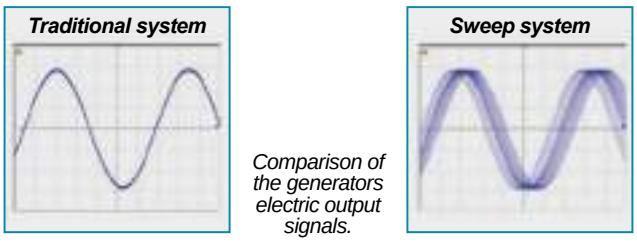
➤ Sweep function: the transducer system provides a sweep cycle from 37 kHz to 34 kHz and back to 37 kHz enabling a homogeneous field distribution.

➤ Sweep function offers faster cleaning with improved cavitation, increased distribution of ultrasonic energy.

➤ Facilitate the ultrasonic wave crossing through the mesh wire basket for more effective cleaning of complicated objects.



Comparison of acoustic field distribution inside the liquid.



Comparison of the generators electric output signals.

degass function

Degass function: accelerates the removal of gas contained in cleaning solutions by pulsing short breaks in the ultrasonic cycle which allows coalesced gas bubbles to rise to the surface and burst.

Degass function allows the ultrasonic cleaner to work much more effectively, since the ultrasonic waves can pass more freely through liquid.

what does degass means

➤ Ultrasonic cleaning is accomplished by the energy released from the violent collapse of tiny vacuum-filled bubbles.

➤ Air bubbles and dissolved air in the freshly filled cleaning liquid absorb ultrasonic energy and significantly reduce the cleaning performance.

➤ A degas mode accelerates the removal of gas contained in cleaning solutions by pulsing short breaks in the ultrasonic cycle which allows coalesced gas bubbles to rise to the surface and burst.

➤ Degass function allows the ultrasonic cleaner to work much more effectively, since the ultrasonic waves can pass more freely through liquid.

pulse function

➤ Pulse function: activates the power so that power increases by approximately %20 and offer inforcement of the peak performance.

➤ Pulse function offers faster cleaning with improved cavitation, increased distribution of ultrasonic energy eliminating the standing waves, facilitate the ultrasonic wave crossing through the mesh wire basket and the complicated objects to be cleaned.

how to degass an ultrasonic bath

➤ Before the start of each working day it is best to degas the liquid in your ultrasonic cleaner tank.

➤ Fill the tank to the limit and add a spoon of cleaning detergent which helps to soften the water and assists degass process.

➤ Set heater thermostat to 60°C. After temperature is achieved run unit on cleaning cycle for about 10 minutes.

➤ Degassing will expel the air so that the unit operates with optimum performance and effectiveness.

➤ It is advised to degass your cleaner whenever you fill the tank with fresh water.





AUTOCLAVE - *"horizontal"*

- Offers ideal conditions for sterilization and autoclaving at all laboratories.
- Featured with 3 step vacuum technology providing up to -0,9 Bar vacuum which guarantees less than 0,2% residual humidity after run cycle.
- Complete and excellent sterilization is guaranteed by fully automatical run.
- Unique jet-type steam generator and an independent vacuum generator ensures excellent sterilization.
- Featured with advanced auto-test system and steam penetration test system.
- Sterilization chamber is manufactured from single piece stainless steel of 2,5 mm thickness.
- Sterilization parameters and other functions can be automatically controlled and observed by membrane keypad with digital LCD panel.
- Double lock door system ensures highest safety level during operation run cycle.
- Alarm function for waste water tank avoiding waste water to enter into the sterilization chamber.
- Featured with an integrated mini printer for recording and printing sterilization informations.

Double lock door system ensures highest safety level during operation run cycle.

Sterilization chamber is manufactured from stainless steel of 2,5 mm thickness.

catalogue no	601.01.023
external dimensions (mm)	740 x 550 x 500
chamber dimensions (mm)	245 Ø x 465
chamber volume (L)	23
voltage (V)	220
frequency (Hz)	50
power (kW)	2,0
sterilizing (pressure / temp.)	100 - 120 KPa / 121°C 200 - 220 KPa / 134°C
water tank capacity (lt)	1,5
water consumption / cycle (lt)	0,4
internal material	stainless steel
external material	epoxy powder coated steel
safety devices	over heat protection over pressure protection leakage breaker safety valve double lock door system waste water alarm



Sterilization parameters and all other functions can be automatically controlled and observed by membrane keypad with digital LCD panel.



Featured with an integrated mini printer for recording and printing all sterilization informations.

AUTOCLAVE - *"vertical"*

- This easy to use, desktop, vertical autoclave offers practical solutions for sterilization.
- Safe, reliable and complete sterilization is guaranteed by immersion type electrical heating elements with high thermal efficiency.
- Sterilization chamber is manufactured from single piece stainless steel of 2,5 mm thickness.
- "Over-temperature" and "over-pressure" systems ensures highest safety level during operation run cycle.
- Silicone sealing ring guarantees excellent and safe closure and prevents steam leakage offering always clean and dry environment.
- Featured with a LED screen electronic timer enabling the time control between 1 - 99 minutes.
- Operative pressure clearly visible and controllable by a pressure gauge. Also featured with buzzer type alarm function for low water level.

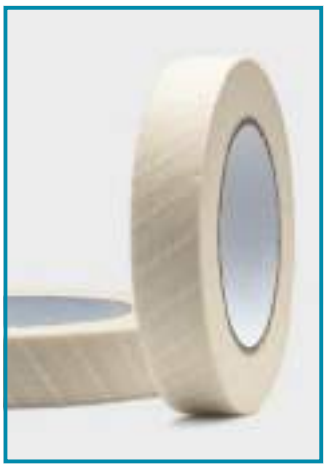


"Over-temperature" and "over-pressure" systems ensures highest safety level during operation cycle.



TEST INDICATOR - *"for steam sterilization"*

- Specially designed for steam sterilisation tests. Consist of a rolled paper with temperaure sensitive stripes on the surface.
- These stripes changes color once the ambient temperature reaches steam sterilisation temperature level.
- Irreversible color change from pale yellow to dark brown proves that the sterilisation protocols has been successfully covered.
- Adhesive at the back of the rolled paper strongly adheres to paper, plastic and textile surfaces yet easily removable without leaving any trace.
- Slightly crepped paper surface allows easy marking by any kind of pen.





before sterilization



after sterilization

catalogue number	roll width	roll length	pack quantity
101.03.001	19 mm	50 m	1 piece



Featured with a LED screen electronic timer enabling the time control between 1 - 99 minutes.

catalogue no	601.02.024
external dimensions (mm)	390 x 400 x 690
chamber dimensions (mm)	Ø280 x 310
chamber volume (L)	24
voltage (V)	220
frequency (Hz)	50 / 60
power (kW)	2,0
sterilizing (pressure / temp.)	100 - 120 KPa / 121°C 200 KPa / 127°C
water tank capacity (lt)	1,5
water consumption / cycle (lt)	0,4
internal material	stainless steel
external material	stainless steel
safety devices	over heat protection over pressure protection leakage breaker safety valve door lock system



SAFETY BOXES

- Manufactured from polypropylene according to UN3291 standard. Labelled according to international standards.
- Resistant to solvents. Thick wall offers puncture resistance to all means.
- Ideal to safe disposal of contaminated products such as needles, syringes, lancets etc.
- For safety reasons the main lid is permanently locked and sealed once pressed on the body.
- Lid provided with a built-in flat opening for waste entry having a temporary and permanent closing system.

catalogue number	volume	dimensions	pack quantity
062.80.901	1.3 L	150 x 100 x 170	1 piece
062.80.903	3.0 L	190 x 110 x 120	1 piece
062.80.905	5.0 L	180 x 190 x 192	1 piece
062.80.912	12.0 L	220 x 260 x 270	1 piece
062.80.925	25.0 L	267 x 332 x 435	1 piece



Lid provided with a built-in flat opening for waste entry having a temporary and permanent closing system.



All safety boxes are labelled according to international standards for safe use.



Safety tray is supplied without the box

SAFETY TRAY

- Tray is manufactured from polypropylene for multi-use with different compartments.
- One of the compartments is specially designed to fit 1,3 lt needle safety box.
- Box should be ordered separately.

catalogue number	pack quantity
062.80.001	1 piece

By using GHS pictograms you can label all dangerous and hazardous products in your lab and avoid injuries.

***"DANGER"** word indicates a hazardous situation which if, not avoided will result in death or serious injury.*

***"WARNING"** word indicates a hazardous situation which if, not avoided will result in serious injury.*

safety labels are printed with 4 languages



GHS 01
explosive
warning
danger



GHS 02
flame
warning
danger



GHS 03
oxidizing
warning
danger



GHS 04
gas cylinder
warning



GHS 05
corrosive
warning
danger



GHS 06
toxicity
danger



GHS 07
irritation
warning



GHS 08
health hazardous
warning
danger



GHS 09
environment hazardous
warning



SAFETY LABELS - *"GHS pictograms"*

- Designed for easy identification of materials with the universally applicable hazard symbols of the Globally Harmonised System of classification and labelling of chemicals.
- Manufactured from 100 µm glossy PE film with acrylic resin adhesive back. Surface featured with additional protective lacquer.
- This unique combination expands and retracts together with temperature fluctuations and guarantees always a strong adhesive bond.
- Chemically inert, water proof, moisture and most solvents and caustic agents. Can be used between - 20°C to + 80°C temperature range.
- Adheres to any clean surface including PTFE coated surfaces without cracking, peeling and degrading. Peels off without leaving any sticky residue.
- **Alternative 2 label size:** **26 x 37 mm labels** / **37 x 52 mm labels**
- Each pictogram is defined with four (German / English / French / Spanish) languages.
- Supplied as rolls of 250 stickers packed in a dispenser box for practicle use.

pictogram description	signal word	label size 26x37 mm	label size 37x52 mm	pack quantity
GHS 1	warning	099.11.001	099.11.003	250 pieces
GHS 1	danger	099.11.002	099.11.004	250 pieces
GHS 2	warning	099.12.001	099.12.003	250 pieces
GHS 2	danger	099.12.002	099.12.004	250 pieces
GHS 3	warning	099.13.001	099.13.003	250 pieces
GHS 3	danger	099.13.002	099.13.004	250 pieces
GHS 4	warning	099.14.001	099.14.003	250 pieces
GHS 5	warning	099.15.001	099.15.003	250 pieces
GHS 5	danger	099.15.002	099.15.004	250 pieces
GHS 6	danger	099.16.002	099.16.004	250 pieces
GHS 7	warning	099.17.001	099.17.003	250 pieces
GHS 8	warning	099.18.001	099.18.003	250 pieces
GHS 8	danger	099.18.002	099.18.004	250 pieces
GHS 9	warning	099.19.001	099.19.003	250 pieces



VISITORS GOWN

- Shirt collar design visitors gown without hood and without pockets.
- Closure is provided with snap fasteners.
- Featured with rubber fasteners at wrist.
- For single use. Manufactured for visitors protection at laboratories.
- Slightly porous texture of the textile guarantees air permeability and prevents sweating during use.
- Light weight. Easy to wear. Soft and flexible texture offers full comfort during use.
- Universal cut for fitting all body sizes.

catalogue number	pack quantity
080.50.001	1 piece



PROTECTOR SUIT

- Overall design protective suit with hood and without pockets.
- Closure is provided by zipper. Featured with rubber fasteners at wrist.
- For single use. Manufactured for employees and visitors protection at laboratories.
- Slightly porous texture of the textile guarantees air permeability and prevents sweating during use.
- Light weight. Easy to wear. Soft and flexible texture offers full comfort during use.

catalogue number	pack quantity
080.50.011	1 piece



PROTECTOR SUITS - 5/6

- Manufactured from high density antistatic polyethylene, providing an ideal balance of protection, durability and comfort.
- Offers chemical protection according to category III (type 5 & 6). Also offers an excellent barrier against fine particles down to 1 micron size.
- Protective suit with overall design perfectly suitable for clean room areas.
- Also practical use at pharmaceutical handling and many others.
- Guarantees air permeability and prevents sweating during use. Repels water based liquids and aeresols.
- Optimised body fit provides excellent wearer comfort. Featured with hood compatible with filtering face masks.
- Featured with rubber fasteners at wrist and around face.
- Closure is provided by auto-lock zipper with flap for increased protection.
- Light weight. Easy to wear. Flexible texture offers full comfort during use.

catalogue number	size	pack quantity
080.51.003	Medium	1 piece
080.51.004	Large	1 piece
080.51.005	X Large	1 piece
080.51.006	XX Large	1 piece



PROTECTOR SUITS - 4B

- Manufactured from high density antistatic polyethylene, providing an ideal balance of protection and comfort.
- Offers chemical protection according to category III (type 4B & 5 & 6). Also offers an excellent barrier against fine particles down to 1 micron size.
- Protective suit with overall design perfectly suitable for clean room areas.
- Also practical use at pharmaceutical handling, chemical processing, and many others.
- Guarantees air permeability and prevents sweating during use. Repels water based liquids and aeresols.
- Optimised body fit provides excellent wearer comfort. Featured with hood compatible with filtering face masks. Featured with rubber fasteners at wrist and around face.
- Closure is provided by auto-lock zipper with flap for increased protection. Taped seams ensure additional protection.
- Light weight. Easy to wear. Flexible texture offers full comfort during use.

catalogue number	size	pack quantity
080.52.003	Medium	1 piece
080.52.004	Large	1 piece
080.52.005	X Large	1 piece
080.52.006	XX Large	1 piece



CAPS

- Manufactured from breathable, antistatic non-woven fabric.
- Fully protects hair prom dust and other particles.
- Offers long life cycle due to tear-proof and water repellent chracteristics.
- Featured with soft and elastic band for secure grab.

catalogue number	pack quantity
080.53.001	100 pieces



OVER SHOES

- Manufactured from polyethylene for disposable use.
- Guarantees clean and sterile environment once worn on the shoes.

catalogue number	pack quantity
080.53.021	100 pieces



OVER SLEEVES

- Manufactured from breathable, high density antistatic polyethylene.
- Offers full cover over arms. Offers good chemical protection.
- Offers long life cycle due to tear-proof and water repellent chracteristics.
- Featured with soft and elastic closures on both ends for safe closure.

catalogue number	pack quantity
080.53.011	200 pieces



OVER BOATS

- Manufactured from breathable, high density antistatic polyethylene.
- Protect feet from dust and other particles.
- Offers long life cycle due to tear-proof and water repellent chracteristics.
- Featured with soft and elastic closures on the end for safe closure.

catalogue number	pack quantity
080.53.031	200 pieces



DESK PROTECTOR - *"paper"*

➤ A practical desk protector offering full protection of desks against spilled solutions.

➤ Quickly absorbs liquids and keep spills from spreading. Absorbs up to 750 ml/m2

➤ Their thick protective layer eliminates the risk of glass breakage in case tilt over.

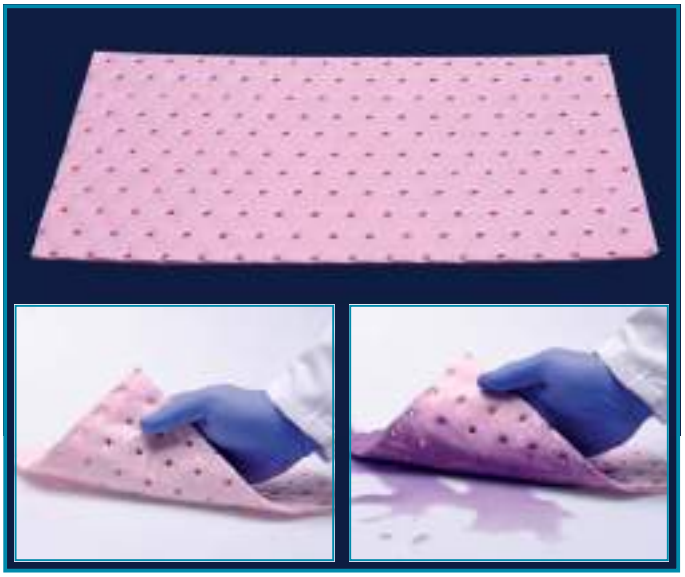
➤ **Consists of 2 layers:**

➤ **Thick and very absorbent paper layer soaks the spilled liquids and protects the laboratory desks.**

➤ **Flexible, water-proof polyethylene layer prevents the spilled liquid penetration to the laboratory desk.**

➤ Supplied as a roll of 50 meters length with 46 cm width.

catalogue number	pack quantity
080.66.001	1 piece





DESK PROTECTORS - *"cork"*

➤ Manufactured from non-porous, additive free, best quality natural cork for protection of laboratory desks.

➤ Their thick protective layer eliminates the risk of glass breakage in case tilt over.

➤ Offers full protection against over heated flasks.

➤ Their light yet robust construction enables multi-use options.

➤ Also significantly reduces vibration effects and noise.

catalogue number	dimensions	thickness	pack quantity
080.66.002	200 x 200 mm	10 mm	1 piece
080.66.003	300 x 300 mm	10 mm	1 piece

CHEMICAL PADS

➤ Due to their microfibre structure they provide excellent absorption capacity.

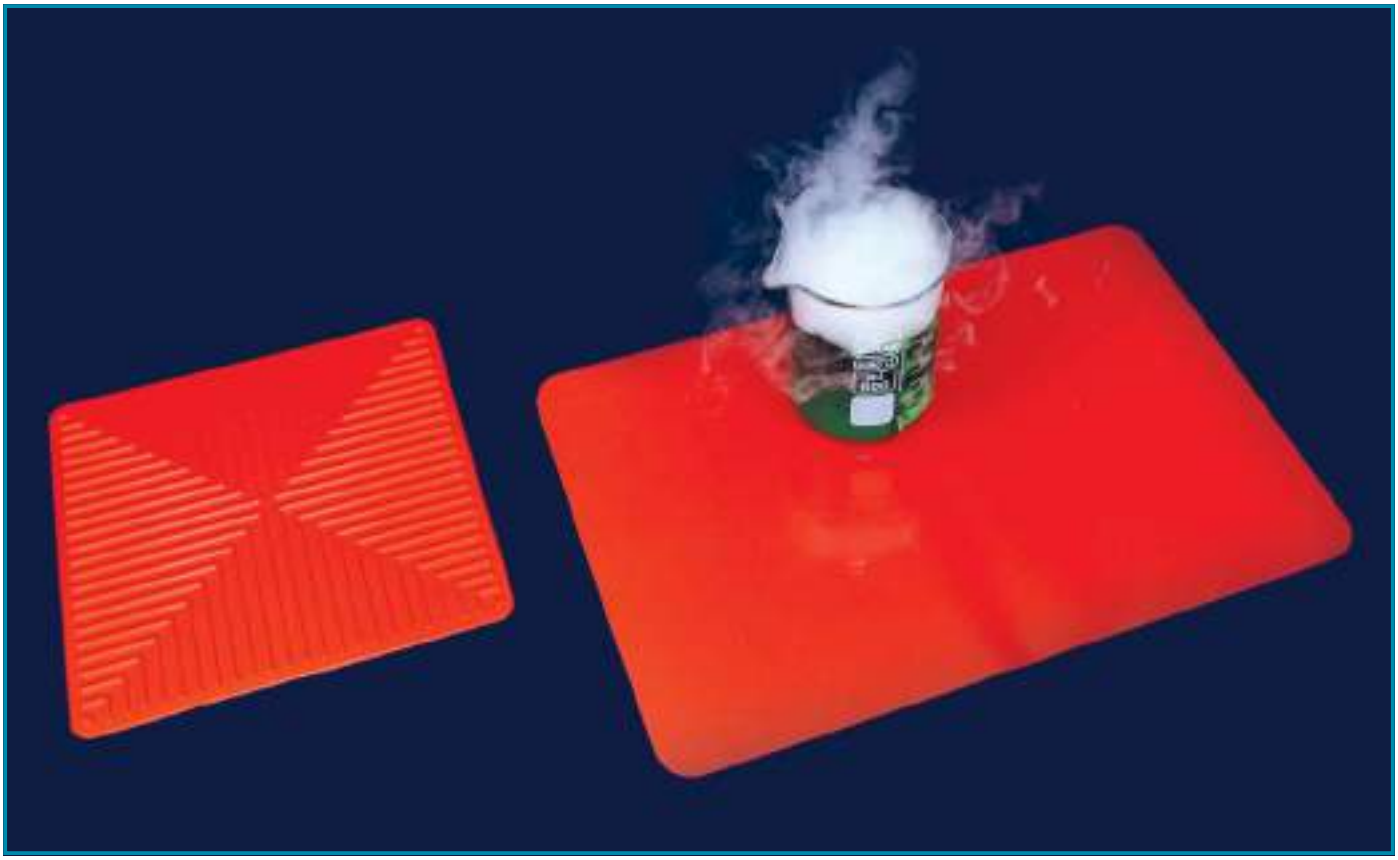
➤ Consists of 8 layer highly absorbent fibers which altogether "imprisons" the liquids and never returns back.

➤ Quickly absorbs the spills of all kinds of liquids including water based liquids, solvents, alcohols, acids and alkalis and stores them absorbed.

➤ Featured with cavities on the pad surface for quicker and more effective absorption.

➤ The absorbed liquid can be extracted to be used again or to be disposed of separately.

catalogue number	pad sheet dimensions	thickness	pack quantity
080.76.001	50 x 40 cm	3,4 mm	10 pieces



DESK PROTECTORS - *"silicone"*

➤ Manufactured from best quality natural silicone resistant both to heat and cold. Guarantees excellent chemical and temperature resistance between -60°C to +170°C.

➤ Very flexible and slip-proof chracteristics guarantees safe hold of all flasks and also instruments. They offer full protection of desks against spilled solutions and over heated flaks.

➤ Creates a stain resistant washable working surface. Can be easily cleaned by simply wiping the surface with any disinfectant or putting it in a dishwasher.

➤ Ideal for every type of laboratory also for cold rooms, clean rooms where high sterility is a requirement. Their thick protective layer eliminates the risk of glass breakage in case tilt over.

➤ Due to their durable and thick construction they can be used as a protective layer under any heavy instrument such laboratory stands.

➤ **Alternative 2 surfaces:**

➤ **With flat surface which is easily cleanable**

➤ **Corrugated surface which arrests the spilled liquids**

catalogue number	*dimensions*	*specification*	*pack quantity*
080.66.004	*300 x 400 mm*	*flat surface*	*1 piece*
080.66.005	*250 x 250 mm*	*corrugated surface*	*1 piece*
080.66.006	*350 x 350 mm*	*corrugated surface*	*1 piece*



CHEMICAL SORBENT GRANULES

➤ Manufactured from polymer based absorbent granules.

➤ Provide excellent absorption capacity up to 12 times of their weight.

➤ Quickly absorbs the spills of all kinds of liquids including water based liquids, acids and stores them absorbed.

➤ Also quickly and effectively neutralise acids and alkalies.

➤ Do not create dust. Do not trigger hazardous reactions with chemicals.

catalogue number	*pack quantity*
080.75.001	*1 kg*



First, make a ring around the spilled liquid.



Absorbs the spills and stores and absorbed.

Quickly absorbs the spills of liquids with absorption capacity up to 12 times of their weight.



Our eyes are the bridge between us and rest of the world.

So, the eyesight is crucial in our life.
And we have only two eyes!

Unfortunately our eyes are constantly exposed to all manners of environmental effects.

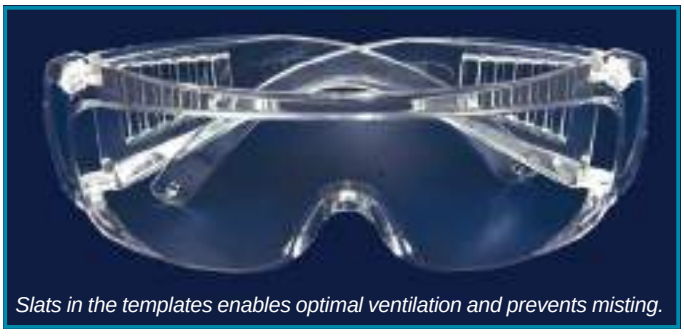
ISOLAB proudly offers you a selection of spectacles, goggles, safety shields and eyewash bottles that covers all requirements of daily laboratory work.



SAFETY SPECTACLES

- Manufactured from ultra clear, impact resistant, UV protected polycarbonate according to CE EN166 standard.
- Ergonomic design guarantees perfect fit. Large panaroma lens offer 180° extremely broad field of vision.
- Recommended for factory visits, assembly lines and laboratory routine work.
- Guarantees full protection including eyebrow and eye sides.
- Offers supreme wearing comfort with 39 gram light weight.
- Slats in the templates enable optimal indirect ventilation and prevent misting.
- Suitable for wearing over common prespriction spectacles.

spectacle clear lens	pack quantity
080.40.003	1 piece



Slats in the templates enables optimal ventilation and prevents misting.



SAFETY SPECTACLES

- Manufactured from ultra clear, impact resistant, UV protected polycarbonate according to CE EN166 standard.
- Sporty and modern design with high mechanical strength.
- Featured with a clear stratch-proof, anti-fog, lens with 100% UV protection.
- Large panaroma lens offer 180° extreme broad field of vision.
- Offers supreme wearing comfort with 18 gram light weight.
- Ergonomically design and slim nose bridge offers perfect fit.
- Different frame colors offer visual sorting and better organising.



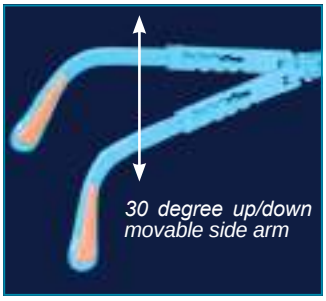
spectacle blue frame	spectacle purple frame	spectacle ruby frame	spectacle green frame	pack quantity
080.40.002B	080.40.002P	080.40.002R	080.40.002G	1 piece

SAFETY SPECTACLES

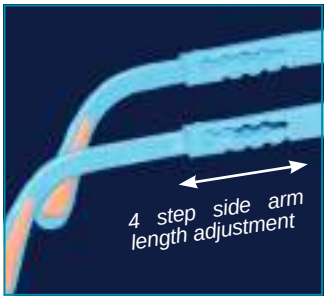
- Manufactured from ultra clear, impact resistant, UV protected polycarbonate according to CE EN166 standard.
- Featured with a clear stratch-proof, anti-fog, lens with 100% UV protection.
- Offers modern styling and very high mechanical strength and full protection to eyes with wide curved lens.
- Ergonomic design guarantees perfect fit. Large panaroma lens offer 180° extremely broad field of vision.
- Offers supreme wearing comfort with 27 gram light weight.
- 30 degree up/down movable side arm also guarantees the optimum lens angle adjustment for the best configuration.
- Featured with side arm length adjustment with integrated stop lock for perfect fit of the spectacle to the face and optimum coverage of the eyes.
- Soft silicone ear pads at the side arms offer supreme wear comfort and pressure-free fit.
- Soft silicone nose loops prevent sliping and ensure comfortable sit on the nose.

spectacle clear lens	pack quantity
080.40.001	1 piece





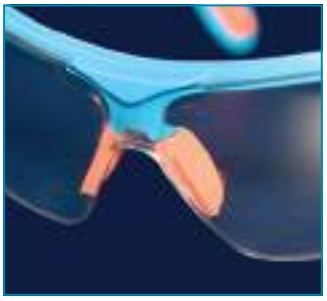
30 degree up/down movable side arm also guarantees the optimum lens angle adjustment.



4 step side arm length adjustment for perfect fit to the face and optimum coverage of the eyes.



Soft silicone ear pads at the side arms offer supreme wear comfort and pressure-free fit.



Soft silicone nose loops prevent sliping and ensure the spectacle sit comfortably on the nose.



SAFETY SPECTACLES

- These spectacles has same technical specifications of safety spectacle 080.40.001.
- Spectacle with a dark lens offers UV 400 protection against direct sunlight exposure.

spectacle dark lens	pack quantity
080.40.011	1 piece



SAFETY SPECTACLES

- These spectacles has same technical specifications of safety spectacle 080.40.001.
- Spectacle with a yellow lens offers UV 254 protection against laser and UV light.

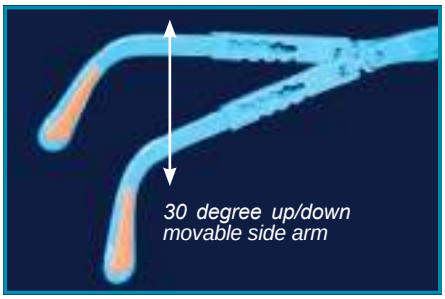
spectacle yellow lens	pack quantity
080.40.021	1 piece



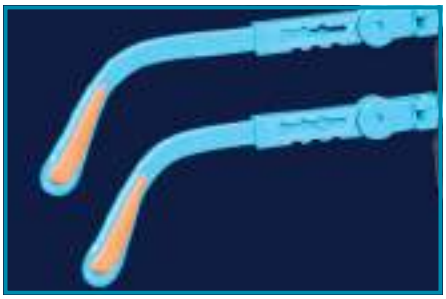
SAFETY SPECTACLES

- Manufactured from ultra clear, impact resistant, UV protected polycarconate according to CE EN166 standard. Ergonomic design guarantees perfect fit.
- Featured with a clear stratch-proof ,anti-fog, lens with 100% UV protection.
- Guarantees full protection of eyes including eyebrow and eye sides.
- Large panaroma lens offer 180° extremely broad field of vision.
- 30 degree up/down movable side arm also guarantees the optimum lens angle adjustment fort he best configuration.
- Offers supreme wearing comfort with 27 gram light weight.
- Featured with side arm length adjustment with integrated stop lock for perfect fit of the spectacle to the face and optimum coverage of the eyes.
- Soft silicone ear pads at the side arms offer supreme wear comfort and pressure-free fit.

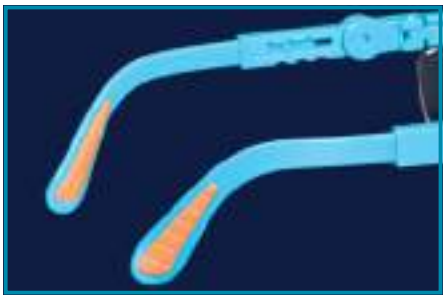
spectacle clear lens	pack quantity
080.40.004	1 piece



30 degree up/down movable side arm also guarantees the optimum lens angle adjustment.



3 step side arm length adjustment for perfect fit to the face and optimum coverage of the eyes.



Soft silicone ear pads at the side arms offer supreme wear comfort and pressure-free fit.



ANTIFOG SET

- Offers 24 hour protection against fogging and keeps the spectacles always with a clear visibility.
- Set consists of 1 x spray unit with antifogging solution and 1 x cleaning ped.
- The application is very simple and effective. Just press the vaporisation button of the spray unit and spead of the antifogging solution all over the spectacle lens.
- Than wipe and clean the lens with the help of the provided cleaning ped.

catalogue number	pack quantity
080.40.102	1 piece

GOGGLE



- This economically priced, comfortable and ergonomically designed goggle offers wearing comfort.
- Also guarantees very high mechanical stability.
- Additional ventilation via integrated air channels enables optimal indirect ventilation ensuring mist-free usage.
- Can be adjusted quickly providing reliable all-round protection.

catalogue number	pack quantity
080.40.006	1 piece

GOGGLE



- Comfortable, ergonomically designed goggle offers unrestricted 180° panaromic visibility.
- Also suitable for wearing over prescription spectacles.
- Ultra clear, stratch-proof, anti- fog visor guarantees very high mechanical stability.
- Provides a modern styling in combination with comfort. Offers supreme wearing comfort due to the light body.
- Can be adjusted quickly providing reliable all-round protection. Adapts to individual face curvature providing complete side protection

catalogue number	pack quantity
080.40.007	1 piece

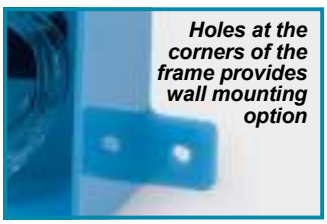
Additional ventilation via integrated air channels enables optimal indirect ventilation ensuring mist-free usage.

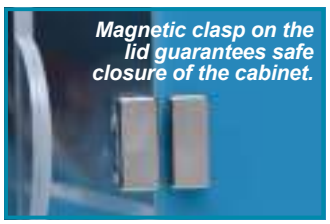


CABINET



- Manufactured from crystal clear acylic with excellent field of vision for storing spectacles.
- Guarantees safe storage of spectacles from dust and other enviromental effects.
- Also can be used to store similar size of other type objects. 4 shelves with generous openings provide easy and safe access to partitions.
- Cover is featured with easy opening hinged lid. Magnetic clasp on the lid guarantees safe closure of the cabinet.
- Once opened, the lid stands open and enables easy filling and dispensing.
- Delivered with necessary attachment screws to be mount to the wall.





catalogue number	shelf quantity	external dimensions	shelf dimensions	pack quantity
080.40.101	5	110x260x400 mm	80x80x200 mm	1 piece



ULTRASONIC BATH

- Designed for intensive and gentle cleaning of small size objects such as spectacles.
- Assures uniform, precision cleaning over the entire surface.
- Featured with a digital LED panel for set & actual time.

Other technical specifications can be seen at catalogue page no 191.



CLEANING TISSUES

- Manufactured from very thin best quality paper based on 100 % manile fibre. Cut with dimensions 100 x 150 mm.
- Guarantees fast and very effective cleaning of spectacles, goggles, microscope objectives, binoculars and all similar optical lens involved items.
- Never leaves any fibers or dust on the cleaned surface.
- These papers never scratches and damages the surfaces. They guarantee non-abrasive cleaning.
- Supplied in a handy booklet of 100 tissue sheet for hygienic storage and for easy dispensing.

catalogue number	dimensions	paper qty. in booklet	pack quantity
080.65.003	100 x 150 mm	100 sheet	1 booklet





LED LIGHT SOURCE

- Offers perfect illumination at dark working environments.
- Featured with a side clamp for easy and practical attachment of the light source to spectacles.
- Illumination angle is adjustable in all directions by swivel mechanism.
- Supplied with easily replaceable batteries with long life cycle.

catalogue number	pack quantity
069.03.005	1 piece



SAFETY SHIELD

- Manufactured from polypropylene with integrated forehead safety cover.
- Provides excellent protection of full face against chemical splashes and flying objects.
- 1,5 mm thick fold-up protective visor manufactured from ultra clear acylate with extra clear vision in all angles.
- Can be worn on the masks, goggles and spectacles. Ultra light weight guarantees full comfort.
- Rotating fastener for easy and fast adjustment to individual head shapes and sizes.
- Variable lift-up mechanism with locking option at any desired position and angle offers practical use.
- Soft sweat band eliminates sweat drops and offers comfortable use.

catalogue number	pack quantity
080.40.010	1 piece

Variable lift-up mechanism with locking at any position. Soft vinyl band offers comfortable use.





Rotating fastener for easy and fast adjustment to individual head size.



EAR MUFF

- Low weight ear muff consists of two part ear pad with well ventilated and soft cushions.
- Offers perfect noise isolation and protection in extremely noisy environments.
- Steel suspentions headband system resistant to bending and providing comfortable pressure on ears.
- Quick-click adjustment enables headbands to adapt quickly to all head shapes and sizes and offers exceptional wearing comfort.
- Ear pads can be folded when not in use for protection against dust and other effects.

catalogue number	pack quantity
069.04.002	1 piece

EAR PLUGS

- Manufactured from non-allergic, very soft, comfortable to wear PU foam with excellent sound insulation.
- Unique design offers wearing comfort even when worn extended hours.
- Optimised bell shape guarantees perfect fit even to ears with smaller audotory canals with a simple insertion.
- Once used seals the ear channel without the risk of slipping out.
- Featured with a cord fixing two plugs each other reducing the risk of loss. Easy to store when not in use.

catalogue number	pack quantity
069.04.001	set of 2





EYE WASH BOTTLES - *"standard size"*



- Accidents can and do happen anytime. Every laboratory should have an emergency eye wash station for immediate access.
- Body manufactured from flexible and easy to squeeze polyethylene. The spray head and other parts manufactured from polystyrene.
- The spray head fits securely around the eye socket to hold eyelid in an open position during application.
- Eye wash bottle with 660 ml volume capacity provides a soft, broad and effective spray with a single action.
- The spray head has a perforated plate to break up the stream providing a gentle spray to the eye.
- A capped air vent valve prevents drawback of the contaminated eye wash back to the reservoir.
- Snap-on cap covers the spray head in a hygienic way and guarantees perfect protection of inside from dust and other environmental effects.
- Contaminated used solution exits through a drain tube which rotates in any direction.
- **Alternative 2 bottles:**
  - **Eye wash bottle filled with sterile saline solution**
  - **Eye wash bottle filled with sterile neutralisation solution**

catalogue number	*solution descriptions*	*pack quantity*
069.03.660	*with 0,9 % saline rinsing solution*	*1 piece*
069.04.660	*with 4,9 % phosphate buffer neutralisation solution*	*1 piece*

069.05.660 / empty bottle without solution / 1 piece



Eye wash bottle provides a soft, broad and excellent, effective spray with a single action.



Snap-on cap covers the spray head in a hygienic way and guarantees perfect protection of inside.



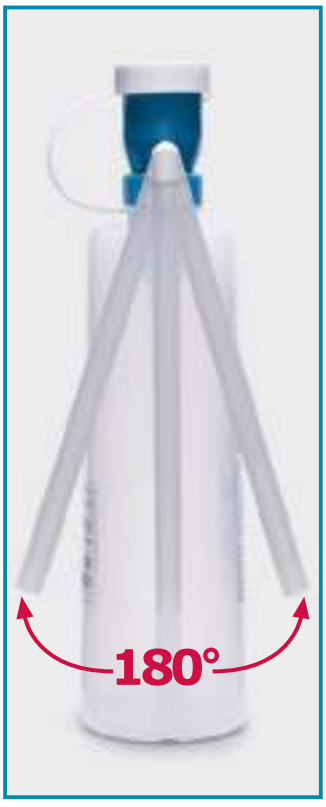
Bottle can be used also even when the injured person is lying down with the help of a sliding valve.



The spray head has a perforated plate to break up the stream providing a gentle spray to the eye.



The spray head fits securely around the eye socket to hold eyelid in an open position during application.



Contaminated used solution exits through a drain tube which rotates in any direction with 180 degree.

EYE WASH BOTTLES - *"compact size"*

- Manufactured as a personal eye wash bottle for emergency use.
- Ideal size for persons being frequently present in different risky working areas.
- Compact size with 175 ml volume capacity offers easy carry in a jacket pocket.
- The spray head fits securely around the eye socket to hold eyelid in an open position during application.
- Eye wash bottle provides a soft, broad and effective spray with a single action.
- The spray head has a perforated plate to break up the stream providing a gentle spray to the eye.
- A capped air vent valve prevents drawback of the contaminated eye wash back to the reservoir.
- Snap-on cap covers the spray head in a hygienic way and guarantees perfect protection of inside from dust and other environmental effects.
- Contaminated used solution exits through a drain tube which rotates in any direction.

- **Alternative 2 bottles:**
  - **Eye wash bottle filled with sterile saline rinsing solution**
  - **Eye wash bottle filled with sterile neutralisation solution**

catalogue number	solution descriptions	pack quantity
069.03.175	with 0,9 % saline rinsing solution	1 piece
069.04.175	with 4,9 % phosphate buffer neutralisation solution	1 piece

069.05.175 / empty bottle without solution / 1 piece

sterile saline rinsing solution

- Sterile saline rinsing solution contains 0,9% sodium chloride. Helpful in rinsing away dust, debris and other harmful irritants.
- Does not involve any side effects since the pH value is similar to that of human tears.
- Prevents the foreign bodies from sticking into the eye and causing serious harm.
- Does not contain pathogens that could cause infection, and will not damage eye or skin tissue during prolonged flushing.

sterile neutralisation solution

- When acids and alkalis contact the eyes or skin damage can start immediately.
- pH neutralising solution contains a sterile 4,9% phosphate buffer solution.
- Helpful in rinsing and neutralisation of acids and alkalis and other chemical contaminants to a harmless level in a very short time period.
- It is recommended to rinse the eye with saline solution after treatment with pH neutralisation solution.





Compact size offers easy carry in a jacket pocket.

BOTTLE STAND - *"for eye wash bottle"*



- For keeping eye wash bottles always "ready-for-use" stage.
- Keeps the bottle stable at his nest and guarantees easy and fast access to the bottle.
- Featured with a mirror and "how-to-use" instructions printed on the body.
- User looks directly into a mirror during rinsing.
- Supplied with necessary screw set for mounting on the wall.

catalogue number	pack quantity
069.05.001	1 piece



User looks directly into a mirror during rinsing. Focusing on the mirror with the eye lid open helps overcome the blinking reflex.

cleaning & safety & protection & sterilization

Masks below are manufactured for full protection against dust, small particles, smoke, vapors, bacteria and viruses depending on the type.

Kindly examine the table to select the right mask that fits to your requirement.

Hazard type	FFP 1	FFP 2	FFP 3
dust	✓	✓	✓
metal fume	✓	✓	✓
weld fume	x	✓	✓
odour	x	x	✓
oil based particles	x	✓	✓
toxic particles	x	✓	✓
virusses	x	✓	✓
bacteria	x	✓	✓
protection factor	4 x O.E.L.	10 x O.E.L.	20 x O.E.L.



DUST MASK - *"FFP-1"*

- Offers protection against non-toxic harmful solid and liquid in concentrations up to 4 x OEL or 4 x APF.
- Specially recommended for calcium carbonate, china clay, cement, cellulose, cotton, sulfur, ferrous metals, vegetable oil and soft foods.
- Convex design, aluminium nosepiece and adjustable fitting straps guarantee excellent fit to different face shapes.
- Light weight provides strain and fatigue free use even with extended hours.
- Inner and external layers of the mask manufactured from soft microfiber which reduces the pressure on the face during use.

catalogue number	pack quantity
080.41.001	1 piece



DUST MASK - *"FFP-2"*

- Offers protection against low-to-average toxic solids, liquids and smoke in concentrations up to 12x OEL or 10 x APF.
- Addition to FFP-1 protection limits additionally offers protection against glass wool, mineral oils, most bacterias and fungi.
- Convex design, aluminium nosepiece and adjustable fitting straps guarantee excellent fit to different face shapes.
- Light weight provides strain and fatigue free use even with extended hours.
- Inner and external layers of the mask manufactured from soft microfiber which reduces the pressure on the face during use.
- Exhalation valve significantly minimise warm and humid airflow into the mask and reduce the risk of mist condensation on eye wears.

catalogue number	pack quantity
080.41.002	1 piece



DUST MASK - *"FFP-3"*

- Offers protection against highly toxic solids, liquids and smoke in concentrations up to 50 x OEL or 20 x APF.
- Addition to FFP-2 protection limits additionally offers protection against chrome, manganese, nickel, similar heavy metal particles, smokes and odores, strychnine, viruses and enzimes.
- Convex design, aluminium nosepiece and adjustable fitting straps guarantee excellent fit to different face shapes.
- Light weight provides strain and fatigue free use even with extended hours.
- Inner and external layers of the mask manufactured from soft microfiber reduces the pressure on the face during use.
- Exhalation valve significantly minimise warm and humid airflow into the mask and reduce the risk of mist condensation on eye wears.

catalogue number	pack quantity
080.41.003	1 piece



MASK - *"half face"*

- Designed and manufactured according to DIN EN 140 and AS/ NZS 1716 standards for protection of mouth and nose.
- All parts contacting with the face are manufactured from silicone.
- Featured with a cool flow valve for extremely low exhalation resistance and prevents built-up heat in the mask.
- Easy to adjust and drop-down straps enable easy and fast wear of the mask.
- Strong and wide flange seals provide security even while walking.
- Ergonomically designed, soft silicone facepiece perfectly fits to the contours of the face without pressure points providing full comfort.
- Extremely comfortable canister filter system with exchangeable cartridge filter ensures low breathing resistance.
- Supplied with a multiple gas cartridge for protection from dust, fine particles, mist, smoke, organic vapours and gases with boiling point 65°C or above.

catalogue number	product descriptions	pack quantity
080.44.001	half face mask	1 piece
080.44.101	spare gas cartridge	1 piece



MASK - *"full face"*

- Designed and manufactured according to EN 136:1998 for protection of full face.
- All parts contacting with the face are manufactured from silicone.
- Featured with anti-stratch, anti-fogging, non-reflecting and distortion-free polycarbonate shield with large field of vision.
- Featured with a cool flow valve for extremely low exhalation resistance and prevents buit-up heat in the mask.
- Easy to adjust and drop-down straps enable easy and fast wear of the mask.
- Strong and wide flange seals provide security even while walking.
- Ergonomically designed, soft silicone facepiece perfectly fits to the contours of the face without pressure points providing full comfort.
- Extremely comfortable canister filter system with exchangeable cartridge filter ensures low breathing resistance.
- Supplied with a multiple gas cartridge for protection from dust, fine particles, mist, toxic smoke (accept carbon dioxide and monoxide), organic or inorganic vapours and gases with boiling point 65°C or above, sulfur dioxide, acidic gasses and ammonia gas.

catalogue number	product descriptions	pack quantity
080.45.001	full face mask	1 piece
080.45.101	spare gas cartridge	1 piece



Skin is our largest organ. Uses 1/3 of our blood and consumes 1/3 of our blood. Harmonize our body temperature and protects us from environmental effects.

Unfortunately our skin is constantly exposed to all manners of environmental effects.

ISOLAB proudly offers you a selection of gloves, skin protection and skin care products that covers all requirements of daily laboratory work.

international harmonised pictograms for protection classifications of gloves.

EN 374	EN 388	EN 407	EN 421	EN 511	AQL value
					
protection against chemical risks.	*protection against mechanical risks.*	*protection against thermal risks*	*protection against radiation risks*	*protection against cold risks*	*acceptable quality level for penetration*



GLOVES - *"nitrile" - "0,06 mm standard thickness"*

- Manufactured pure nitrile free from phthalate softeners and latex proteins which cause allergy to the skin.
- Provides a standard thickness of 0,06 mm which is recommended for daily laboratory use.
- Classified as CE category 1. Tested an accordance with EN420:2003 standard.
- Provided with AQL 1,5 offering the highest level of protection according to EN374-2:2003 against penetration of microorganisms.
- 40 % more stronger and 60 % leaner than latex gloves.
- Provides full protection against wide range of chemicals including cylotoxic drugs.
- Easy to wear. Unique production techniques offer excellent mechanical strength providing multi-use options.
- Excellent fit to the hands guarantees maximum comfort.
- Slightly textured finger parts guarantee excellent grip option.

catalogue number	size	color	AQL	length	thickness	pack quantity
080.15.001	Small (7)	purple	1.50	240 mm	0,06 mm	100 pieces
080.15.002	Medium (8)	purple	1.50	240 mm	0,06 mm	100 pieces
080.15.003	Large (9)	purple	1.50	240 mm	0,06 mm	100 pieces
080.15.004	X Large (10)	purple	1.50	240 mm	0,06 mm	100 pieces

how to measure the right glove size?



- You have to select the right size of glove for your hands for your comfort.
- How you will select the right size of your glove? Measure the circumference of your dominant hand just below the fingers excluding the thumb. Compare the measurement to the size chart below to find your glove size.

XS	S	M	L	XL	XXL
(6" - 7")	(7" - 8")	(8" - 9")	(9" - 10")	(10" - 11")	(11" - 12")

GLOVES - *"nitrile" - "0,12 mm extra thickness"*



- Manufactured pure nitrile free from phthalate softeners and latex proteins which cause allergy to the skin.
- Provides extra thickness of 0,12 mm which is recommended for daily laboratory use.
- Thick gloves are specially designed for life science, biomedical research, forensic science and drug handling applications.
- **Extra thickness guarantees extra safety.**
- Classified as CE category 1. Tested an accordance with EN420:2003 standard.
- Provided with AQL 1,5 offering the highest level of protection according to EN374-2:2003 against penetration of micro-organisms.
- 40 % more stronger and 60 % leaner than latex gloves.
- Provides full protection against wide range of chemicals including cylotoxic drugs.
- Easy to wear. Unique production techniques offers excellent mechanical strength providing multi-use options.
- Excellent fit to the hands guarantee maximum comfort. Slightly textured finger parts guarantee excellent grip option.

catalogue number	size	color	AQL	length	thickness	pack quantity
080.16.001	Small (7)	blue	1.50	240 mm	0,12 mm	100 pieces
080.16.002	Medium (8)	blue	1.50	240 mm	0,12 mm	100 pieces
080.16.003	Large (9)	blue	1.50	240 mm	0,12 mm	100 pieces
080.16.004	X Large (10)	blue	1.50	240 mm	0,12 mm	100 pieces

DISPENSER BOX *"for nitrile glove boxes"*



- Manufactured from crystal clear acrylic with excellent field of vision for storing and dispensing nitrile glove boxes.
- Perfect tools for storing and easy dispensing 4 different sizes gloves simultaneously.
- 4 compartments with easy inserts perfectly fit to the outer dimensions of the extra thick glove boxes and holds them stable at their positions.
- Designed for use either on desk top or wall mounted.
- Delivered with necessary attachment screws to be mount to the wall.
- **Alternative 2 box size:**
  - **box for standard gloves**
  - **box for thick gloves**
- Box for standard gloves can also accomodate the cleaning tissue box **catalogue number 080.65.002.**

catalogue number	dimensions	pack quantity
080.05.001	215 x 70 x 465 mm	1 piece
080.05.002	260 x 85 x 525 mm	1 piece



Box for standard gloves can also accomodate the cleaning tissue box ***catalogue number 080.65.002.***



GLOVES - *"nitrile" - "for chemical protection"*

- Manufactured from pure nitrile free from phthalate softeners and latex proteins which can cause allergy to the skin.
- Classified as CE category III they can be used both at laboratories and industry.
- Offers excellent protection against alcohols, oils, greases, and hydrocarbons.
- Provide superior mechanical resistance against abration and perforation.
- Easy to wear due to the anatomical shape.
- Excellent fit and flexible texture offers full dexterity and comfort during use.
- Cotton flock liner inside the glove absorbs moisture and prevents sweating during use.
- Slightly textured fingers and palm guarantees excellent grip and handling option both for dry, wet and oily products.

catalogue number	size	length	thickness	internal finish	external finish	pack quantity
080.21.007	Small (7)	320 mm	0,38 mm	flocked	embossed	1 pair
080.21.008	Medium (8)	320 mm	0,38 mm	flocked	embossed	1 pair
080.21.009	Large (9)	320 mm	0,38 mm	flocked	embossed	1 pair
080.21.010	X Large (10)	320 mm	0,38 mm	flocked	embossed	1 pair



GLOVES - *"nitrile" - "for chemical protection"*

- Manufactured from pure nitrile free from phthalate softeners and latex proteins which can cause allergy to the skin.
- Classified as CE category III they can be used both at laboratories and industry.
- Offers excellent protection against alcohols, oils, greases, and hydrocarbons.
- Provide superior mechanical resistance against abration and perforation.
- Easy to wear due to the anatomical shape and to the multi-layer technology.
- Excellent fit and flexible texture offers full dexterity and comfort during use.
- Cotton flock liner inside the glove absorbs moisture and prevents sweating during use.
- Slightly textured fingers and palm guarantee excellent grip and handling option both for dry, wet and oily products.

catalogue number	size	length	thickness	internal finish	external finish	pack quantity
080.22.007	Small (7)	355 mm	0,85 mm	flocked	embossed	1 pair
080.22.008	Medium (8)	355 mm	0,85 mm	flocked	embossed	1 pair
080.22.009	Large (9)	355 mm	0,85 mm	flocked	embossed	1 pair
080.22.010	X Large (10)	355 mm	0,85 mm	flocked	embossed	1 pair



GLOVES - *"neopren" - "for chemical protection"*

- Manufactured from polychloroprene which can cause allergy to the skin.
- Classified as CE category III they can be used both at laboratories and industry.
- Offers protection against semi-concentrated acids, concentrated bases, cocentrated saline solutions, glycerol, solvents, alcohols, fats and oils.
- Provide superior mechanical resistance against abrasion and perforation.
- Easy to wear due to the anatomical shape. Extremely supple due to the multi-layer technology.
- Excellent fit and flexible texture offers full dexterity and comfort during use.
- Cotton flock liner inside the glove absorbs moisture and prevents sweating during use.
- Slightly textured fingers and palm guarantee excellent grip and handling option both for dry, wet and oily products.

catalogue number	size	length	thickness	internal finish	external finish	pack quantity
080.23.007	Small (7)	310 mm	0,55 mm	flocked	embossed	1 pair
080.23.008	Medium (8)	310 mm	0,55 mm	flocked	embossed	1 pair
080.23.009	Large (9)	310 mm	0,55 mm	flocked	embossed	1 pair
080.23.010	X Large (10)	310 mm	0,55 mm	flocked	embossed	1 pair

GLOVES - "polyurethane" - "for mechanical protection"



- Offers excellent abrasion resistance and protection of hands from environmental effects.
- Since classified as CE category II they can be used both at laboratories and industry.
- Extremely light weight. Excellent fit to the hands guarantees maximum comfort. Offers perfect grasp of the wrist.
- Provide superior mechanical strength.
- Easy to wear. Soft and flexible texture due to the polyurethane coating offers full comfort during use.
- Slightly porous texture of the upper part guarantees air permeability and prevents sweating during use.
- Slightly textured fingers and palm guarantee excellent grip.
- Offers handling option both for dry, wet and even oily products.

catalogue number	size	length	thickness	internal finish	external finish	pack quantity
080.24.007	Small (7)	270 mm	light weight	flocked	polyurethane	1 pair
080.24.008	Medium (8)	270 mm	light weight	flocked	polyurethane	1 pair
080.24.009	Large (9)	270 mm	light weight	flocked	polyurethane	1 pair
080.24.010	X Large (10)	270 mm	light weight	flocked	polyurethane	1 pair

GLOVES - "for cut resistance"



- Offers extremely high cutting resistance of level 5 EN 388 and 38 N in ISO 13997 for safe handling and assembly of sharp-edged objects.
- Classified as CE category II they can be used both at laboratories and industry.
- Anatomical shape ensures dexterity. Excellent fit to the hands guarantees maximum comfort.
- Offers perfect grasp of the wrist
- Also provide superior mechanical strength against abrasion and puncture.
- Easy to wear. Soft and flexible texture offers full comfort during use.
- Slightly porous texture of the upper part guarantee air permeability and prevents sweating during use.

catalogue number	size	length	internal finish	external finish	pack quantity
080.25.007	Small (7)	280 mm	flocked	ventilated	1 pair
080.25.008	Medium (8)	280 mm	flocked	ventilated	1 pair
080.25.009	Large (9)	280 mm	flocked	ventilated	1 pair
080.25.010	X Large (10)	280 mm	flocked	ventilated	1 pair

GLOVES - "for thermal resistance"



- Manufactured from nitrile foam. Suitable for handling hot objects up to 125°C for short time contact. Also ideal for handling of materials after heat processing
- Classified as CE category II they can be used both at laboratories and industry.
- Thin anatomical shape ensures dexterity. Excellent fit to the hands guarantees maximum comfort. Offers perfect grasp of the wrist .
- Provides superior mechanical strength.
- Easy to wear. Soft and flexible texture offers full comfort during use.
- Slightly porous texture of the upper part guarantees air permeability and prevents sweating during use.
- Nitrile spheres at the palm and finger parts guarantee perfect insulation with excellent grip option.

catalogue number	size	length	internal finish	external finish	pack quantity
080.26.007	Small (7)	280 mm	flocked	dotted	1 pair
080.26.008	Medium (8)	280 mm	flocked	dotted	1 pair
080.26.009	Large (9)	280 mm	flocked	dotted	1 pair
080.26.010	X Large (10)	280 mm	flocked	dotted	1 pair



GLOVES - *"for safe handling"*

➤ Manufactured from light weight 100 % cotton for multi-use. Unique design provides both left and right handed use.

➤ Easy to wear. Soft and flexible texture offers full comfort during use. Thick yet stretchable. Protects the sensitive skin.

➤ Makes unlined gloves easier to pull or to wear. Also prevents from moderate levels of cold and heat. They are machine washable.

catalogue number	total length	pack quantity
080.13.001	260 mm	1 pair



GLOVES - *"for cold protection"*

➤ Economical and practical glove specially designed to work in cold environments.

➤ Recommended to be used in cold treatment plants, handling dry ice, working with coolents.

➤ Offers full protection very against even cold temperatures such as -140°C.

➤ Easy to wear. Soft and flexible texture offers full comfort during use. Thick yet stretchable. Protects the sensitive skin.

➤ The outer part of the glove is covered with a heat repellent leather. While the inner part is featured with soft and flexible protective textile.

➤ Even working at very low temperatures with extended hours it still remains flexible.

catalogue number	total length	pack quantity
080.10.201	450 mm	1 pair



GLOVES - *"for cold protection"*

➤ Specially designed to work in hazardous ultra-cold enviroments.

➤ Multi-layer construction provides light weight and full comfort during use. State-of-art material is breathable and stays always comfortable and dry.

➤ Offers full protection against even very cold temperatures such as -160°C.

➤ Recommended to be used in cold treatment plants, handling dry ice, working with coolents. Not immersion in liquid nitrogen.

➤ The innovative design offers superior thermal protection and maximum level of flexibility.

➤ Even working at very low temperatures with extended hours it still remains flexible.

catalogue number	glove length	pack quantity
080.10.101	450 mm	1 pair



GLOVES - *"for heat protection"*

- Manufactured from soft, flexible, heat resistant pliant terry cotton material.
- Easy to wear. Soft and flexible texture offers full comfort.
- The upper part is covered with a heat repellent material. While the palm part is manufactured from heat resistant soft and flexible leather.
- Offers maximum isolation and protection up to 250°C when working with autoclaves and muffle furnaces.
- Guarantees a long life cycle since they can be machine washable.

catalogue number	total length	pack quantity
080.11.001	380 mm	1 pair



GLOVES - *"silicone"*

- Manufactured from best quality natural silicone resistant both to heat and cold.
- Guarantees excellent chemical and temperature resistance between -60°C to +170°C.
- Very flexible and slip-proof chracteristics guarantee easy and safe grip of all kinds of flasks and vessels

alternative 2 gloves

- Glove with finger compatments
- Glove with single hand compartment

catalogue number	glove type	pack quantity
080.18.001	5 fingers	1 piece
080.18.002	full hand	1 piece





FINGER PROTECTORS

- Manufactured from best quality natural silicone resistant both to heat and cold.
- Guarantees excellent chemical and temperature resistance between -60°C to +170°C.
- They offer a practical and economical alternative to gloves.
- Very flexible and slip-proof chracteristics guarantee easy and safe grip of all kinds of flasks and vessels.

alternative 2 products

- **Protector for 2 fingers**
- **Protector for full hand**

- 2 finger protector is recommended for handling test tubes. Full hand protector is recommended for all kind of flasks.

catalogue number	glove type	pack quantity
080.17.001	for 2 fingers	1 piece
080.17.002	for 5 fingers	1 piece









SKIN PROTECTION CREAM

- Developed for laboratory pre-work. Ideal for protecting the skin against dyes, resins, solvents, acids and alkalis.
- Free from silicone. Can be absorbed quickly without leaving any residue.
- Protects and smooths your skin with a breathable, thin protective film. Gives the skin elasticity and suppleness through its special caring agents.
- Does not effect the skin nature and the sense of touch. Suitable for all skin types since the pH value matches the skin pH value.

catalogue number	pack quantity
080.31.001	200 ml



SKIN CARE CREAM

- Highly effective after-work conditioning cream for effective skin care for hard-working skins. Also provides effective care for face and hands.
- Calms the skin, support the re-generation process and restore the lost moisture. Also provides the skin elasticity and suppleness. Free from silicone. Can be absorbed quickly without leaving any greasy residue.
- Protects and smooths your skin with a breathable, thin protective film. Suitable for all skin types since the pH value matches the skin pH value.

catalogue number	pack quantity
080.31.002	200 ml



SKIN CLEANSER LOTION

- An effective skin cleanser for use in laboratories. Developed for gentle but effective cleaning of stressed skin.
- Suitable for sensitive skins since creamy foam is free from parfume and preservatives. Prevents chapping and dryness.
- Free from silicone. Can be absorbed quickly without leaving any greasy residue.
- Protects and smooths your skin with a breathable, thin protective film. Suitable for all skin types since the pH value matches the skin pH value.

catalogue number	pack quantity
080.31.004	200 ml



SKIN COMFORT CREAM

- Highly effective for skin comfort specially when using gloves. Prevents sweat built up and significantly reduces swelling.
- Developed specially for wearing safety gloves. Provides the skin elasticity and suppleness, Also offers easy putting-on and taking-off of the gloves.
- Significantly reduces the unpleasant side-effects of wearing hand protection gloves at the laboratory.
- Free from silicone. Suitable for all skins. Can be absorbed quickly without leaving any greasy residue.

catalogue number	pack quantity
080.31.003	200 ml



SKIN CARE SET

- Set consists of skin protection cream, skin care cream, skin cleaner solution and skin comfort cream. Supplied with an easy use, practical dispenser stand.

catalogue number	pack quantity
080.31.005	set of 4

ISOLAB Laborgeräte GmbH

DIN EN ISO CERTIFIED 9001











density & sedimentation
temperature & time
pH & weight measurement























density & sedimentation & temperature & time & pH & weight measurement



DENSITY BOTTLES
"non - calibrated"

- Manufactured according to ISO 3507 standard.
- For easy differentiation both the body and the stopper carries the same identification code number.
- Featured with a stopper with excellently polished upper and lower ends.
- Nominal volume and inscriptions are printed with blue enamel.

catalogue number	volume	pack quantity
023.01.005	5 ml	1 piece
023.01.010	10 ml	1 piece
023.01.025	25 ml	1 piece
023.01.050	50 ml	1 piece
023.01.100	100 ml	1 piece



DENSITY BOTTLES
"calibrated"

- Manufactured according to ISO 3507 standard.
- For easy differentiation both the body and the stopper carries the same identification code number.
- Calibrated together with the stopper with a precision of 0,001 ml. Net volume is engraved on the body.
- Featured with a stopper with excellently polished upper and lower ends.
- Nominal volume and inscriptions are printed with blue enamel.

catalogue number	volume	pack quantity
023.02.005	5 ml	1 piece
023.02.010	10 ml	1 piece
023.02.025	25 ml	1 piece
023.02.050	50 ml	1 piece
023.02.100	100 ml	1 piece



DENSITY BOTTLES
"calibrated with thermometer"

- Manufactured according to ISO 3507 standard.
- Featured with a thermometer of scale range +10°C to +40°C, with scale 0,5°C.
- For easy differentiation both the body and the stopper carries the same identification code number.
- Calibrated together with the stopper with a precision of 0,001 ml. Net volume is engraved on the body.
- Featured with a stopper with excellently polished upper and lower ends.
- Nominal volume and inscriptions are printed with blue enamel.

catalogue number	volume	pack quantity
023.03.005	5 ml	1 piece
023.03.010	10 ml	1 piece
023.03.025	25 ml	1 piece
023.03.050	50 ml	1 piece
023.03.100	100 ml	1 piece

how to use density bottles

1 - Carefully weigh the empty and well dried density bottle.

2 - Fill the bottle up to 2/3 of the neck level while avoiding air bubbles.

3 - Adjust the bottle temperature to 20°C in a thermostatic bath.

Insert the stopper of the bottle carefully. The capillary of the stopper will discharge the liquid.

4 - Dry the body and the stopper carefully by wiping with a tissue paper. Pay attention not to remove any liquid from the capillary tube.

5 - The liquid inside of the bottle should exactly be at the same level with the upper end of the capillary.

6 - Final step is weighing the filled density bottle and calculating the density.



IMHOFF CONES

- Manufactured from heat resistant, durable borosilicate glass according for sedimentation tests according to DIN 12672 standard.
- Featured with volume graduation of 1000 ml.
- Volume graduations and inscriptions are printed with white enamel.

Alternative 2 cones:

- **Cones without stopcock**
- **Cones with stopcock**

graduation range	*subdivision*
0 - 2 ml	*0,1 ml*
> 2 -10 ml	*0,5 ml*
>10 - 40 ml	*1,0 ml*
>40 - 100 ml	*2,0 ml*
>100 - 1000 ml	*50,0 ml*

catalogue number	*cone type*	*pack quantity*
043.20.001	*without stopcock*	*1 piece*
043.20.002	*with stopcock*	*1 piece*
043.21.001	*plastic - SAN*	*1 piece*





IMHOFF CONE STANDS

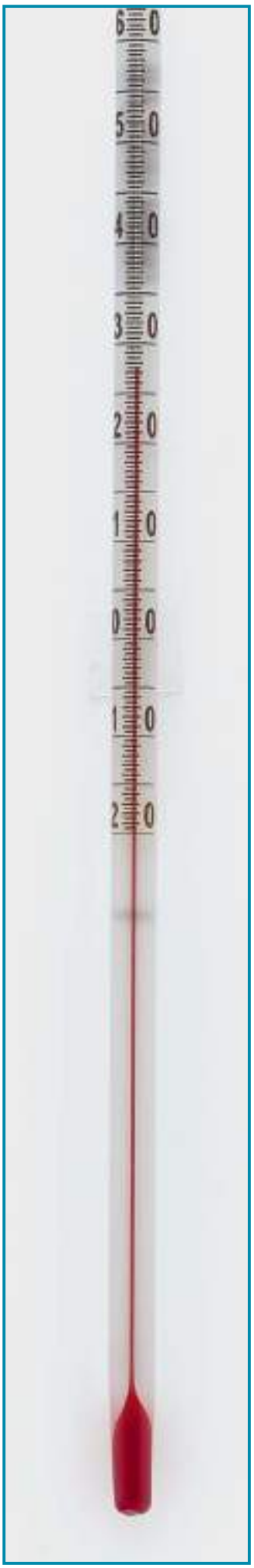
- Manufactured to hold two imhoff sedimentation cones of any type.
- Compact design allows easy carry of imhoff cones even when the cones are filled.
- The unique designs provides easy carry of any all types of imhoff cones with or without stopcock.

Alternative 2 stands:

- **Stand made from PMMA & steel**
- **Stand made from PMMA**

catalogue number	*rack type*	*pack quantity*
043.22.001	*PMMA & steel*	*1 piece*
043.22.002	*PMMA*	*1 piece*





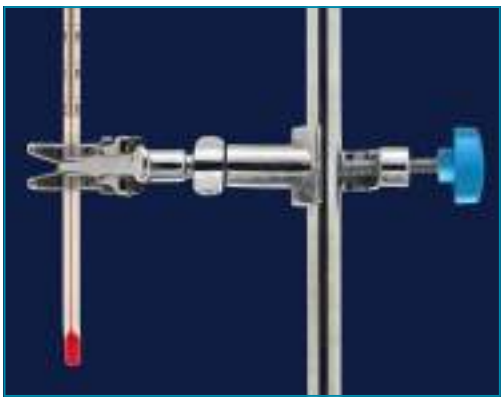
THERMOMETERS - *"glass"*

- Manufactured from solid stem glass rods with approximately 75 mm immertion depth.
- Printed large graduation on the front wall offers easy temperature reading.
- Large alcohol column with red color enables easy and accurate readout.
- The amber front scale of the thermometer reflects the images more clearly.

catalogue number	operation range °C	subdivision	pack quantity
059.02.001	-20 / + 50	1°C	10 pieces
059.02.002	-20 / +110	1°C	10 pieces
059.02.003	-10 / +150	1°C	10 pieces
059.02.004	-10 / +200	2°C	10 pieces

THERMOMETER CLAMP *"with bosshead"*





- Manufactured from high quality, corrosion resistant chromated steel for holding thermomeres in the most secure way.
- Featured with a swivel bosshead which provides 360° swivel of the clamped object around their axis.
- Bosshead locking feature guarantees perfect position hold of the clamped objects.
- Fixing head featured with flexible springs offers easy insertion and extraction of the thermometers.
- Clamps can be opened and closed smoothly with a 30 mm grip diameter.

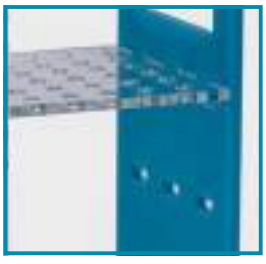
Other technical specifications can be seen at catalogue page no 82.

STAND *"adjustable height"*



- Manufactured from acrylic for holding 72 thermometers in 12 x 6 array.
- Handles at both sides guarantee easy hold and secure grib.
- Adjustable height upper layer provides multi-use options with shorter objects.

catalogue number	dimensions	pack quantity
059.05.001	210 x 110 x 220 mm	1 piece



Adjustable height upper layer provides multi use options with shorter objects.



THERMOMETER
"portable"

- For temperature measurement in liquids, semi-solids. Specially offers practical solutions with foodstuff.
- Stainless steel probe with 127 mm length can easily be inserted into semi-solid samples.
- Offers temperature measurement on a large and clear 19 x 8 mm LCD display.
- Water resistant sturdy plastic housing offers long life cycle.
- Temperature measurement range is -58°F to +158°F (+/- 0,2°F) or -50°C to +300°C (+/- 0,1°C) selectively.
- °F & °C values are exchangeable by a switch control at the front panel.
- Supplied with a plastic sleeve for the protection of the measuring probe.

catalogue number	pack quantity
060.01.001	1 piece





THERMOMETER
"portable"

- For temperature measurement in liquids, semi-solids. Specially offers practical solutions with foodstuff.
- Stainless steel probe with 120 mm length can easily be inserted into semi-solid samples.
- Offers temperature measurement on a large and clear 34x14 mm LCD display.
- Water resistant sturdy plastic housing offers long life cycle.
- Temperature measurement range is -58°F to +572°F (+/- 2°F) or -50°C to +300°C (+/- 0,5°C) selectively.
- °F & °C values are exchangeable by a switch control at the front panel.
- Supplied with a plastic sleeve for the protection of the measuring probe.

catalogue number	pack quantity
060.01.002	1 piece





THERMOHYGROMETER
"portable"

- Pen shape, thermohygrometer is featured with a rotary probe enabling fast readings.
- Water resistant sturdy plastic housing with 138 mm length offers long life cycle.
- Featured with a clips for safe and practical use.
- Offers dual display for humidity and temperature on a large and clear 52 x 13 mm LCD display.
- Featured with maximum & minimum reading memory.
- Humidity measurement range is 20% RH – 95 %RH with +/- 3%RH accuracy.
- Temperature measurement range is 32 - 122°F (+/- 2°F) or 0 - 50°C (+/- 1°C) selectively.
- °F & °C values are exchangeable by a simple switch control at the back.

catalogue number	pack quantity
060.03.002	1 piece

density & sedimentation & temperature & time & pH & weight measurement



THERMOMETER - *"desk-top"*

- This desk top electronic thermometer can be also used as wall hanged. With the help of two probes can be used for in-door and out-door temperature measurement simultaneously.
- The folding stand at the back housing offers a convenient angle for easy reading of the results.
- Water resistant sturdy plastic housing with 135 x 75 x 19 mm dimensions offers long life cycle.
- Offers dual display for humidity and temperature on a large and clear 51 x 41 mm LCD display.
- Featured with maximum & minimum temperature reading memory with an alarm function and date / time display.
- Temperature measurement range is -4°F to +122°F (+/- 0,2°F) or -20°C to +50°C (+/- 0,1°C) selectively.
- °F & °C values are exchangeable by a switch control at the front panel.

catalogue number	pack quantity
060.02.001	1 piece





THERMOHYGROMETER - *"desk-top"*

- This desk top thermohygrometer can be also used as wall hanged. The folding stand at the back housing offers a convenient angle for easy reading of the results.
- Water resistant sturdy plastic housing with 109 x 70 x 19 mm dimensions offers long life cycle.
- Offers dual display for humidity and temperature on a large and clear 40 x 30 mm LCD display.
- Featured with maximum & minimum temperature reading memory with an alarm function.
- Humidity measurement range is 10% RH – 99 %RH with +/- 1%RH accuracy.
- Temperature measurement range is -58°F to +158°F (+/- 0,2°F) or -50°C to +70°C (+/- 0,1°C) selectively.
- °F & °C values are exchangeable by a switch control at the front panel.

catalogue number	pack quantity
060.03.001	1 piece

THERMOMETER - *"with foldable probe"*

- For temperature measurement in liquids, semi-solids. Specially offers practical solutions with foodstuff.
- Featured with a foldable stainless steel probe with 85 mm length which can move 180° angle. Probe can easily be inserted into semi-solid samples.
- Offers temperature measurement on a large and clear 15 x 30 mm LCD display.
- Temperature measurement range is -58°F to +482°F or -50°C to +250°C with +/- 0,1 resolution.
- °F & °C values are exchangeable by a switch control inside the battery cover.
- Water resistant sturdy plastic housing offers long life cycle.

catalogue number	pack quantity
060.01.003	1 piece



THERMOMETER - *"wireless" - "max. & min."*

- This thermometer is suitable both for out-door or in-door applications. Shows also time and date simultaneously.
- Maximum and minimum temperature values can also be seen by a selectible switch.
- Featured with a wireless measurement transmitter that can be used up to 60 meters (free field) to the thermometer body.
- Can display in-door and out-door temperature. °F & °C values are selectible by a switch at the front panel.
- Offers a in-door temperature measuring range from -10°C (+ 14°F) to +60°C (+140°F) with a precision of +/- 1°C (+/- 2°F)
- Offers a out-door temperature measuring range from -40°C (-58°F) to +70°C (+158°F) with a precision of +/- 1°C (+/- 2°F)
- Featured with a push buttons switchs for resetting,°C or °F selection, maximum or minimum reading setting.
- Can be hanged on walls or can can be used as desk-top with it's inclinable support at the back side of the body.

catalogue number	pack quantity
059.03.003	1 piece



Featured with a wireless measurement transmitter that can be used up to 60 meters (free field) to the thermometer body.



THERMOMETER - *"max. & min." - "humidity"*

- Suitable both for out-door or in-door applications. Weather resistant, robust housing is featured with an inclined shelter for further protection.
- Can measure and display in-door temperature and humidity plus out-door temperature.

Offers 3 parameters

- **In-door temperature**
- **Out-door temperature**
- **%RH humidity**

- Can also records and shows the maximum and minimum values of temperature and humidity selectively.
- Offers a in-door temperature measuring range from -10°C (+14°F) to +50°C (+122°F) with a precision of +/- 1°C (+/- 2°F)
- Offers a out-door temperature measuring range from -50°C (-58°F) to +70°C (+ 158°F) with a precision of +/- 1°C (+/- 2°F)
- Offers a in-door humidity measuring range from 20% RH to 99% RH with a precision of +/- 5% RH.
- Featured with push buttons switchs for °C or °F selection and maximum or minimum temperature.
- Can be hanged on walls or can stand on a bench.

catalogue number	pack quantity
059.03.004	1 piece

density & sedimentation & temperature & time & pH & weight measurement



STOPWATCH - *"mechanical"*

- This classical stopwatch with mechanical winding system can be used even in extreme conditions.
- Provides time counting up to 30 minutes with 0,2 second resolution.
- Chrome plated sturdy housing provides resistance to sudden impacts and guarantees long life cycle.

catalogue number	diameter	pack quantity
055.01.001	50 mm	1 piece



STOPWATCH - *"electronic"*

- Electronic stopwatch offers counting up to 59 minutes, 59 seconds with 0,01 second resolution.
- Offers long life cycle and easy use with it's water resistant sturdy plastic housing and light weight.
- **3 functions:**
  - **As a time recorder**
  - **As a chronometer**
  - **As a 24 hour timer with alarm function.**

catalogue number	dimensions	pack quantity
055.02.001	63 x 76 x 20 mm	1 piece



TIMER - *"mechanical"*

- Mechanical timer counts up to 60 minutes with 1 minute resolution.
- No need for batteries. Just winding will be enough to start the time counting.
- A clear bell ring signals at the end of the preset time. Can be interrupted during work and reset any time.
- Can be used on bench top or also can be hanged to any smotth surface.

catalogue number	dimensions	pack quantity
056.01.001	60 x 60 x 34 mm	1 piece



TIMER - *"mechanical"*

- Mechanical timer counts up to 60 minutes with 1 minute resolution. Does not require batteries. Just winding will be enough to start the counting.
- A clear bell ring signals at the end of the preset time. Can be interrupted during work and reset any time.

catalogue number	dimensions	pack quantity
055.03.001	93 x 75 x 59 mm	1 piece



TIMER - *"mechanical"*

- Mechanical timer counts up to 60 minutes with 1 minute resolution. A large screen with 150 mm diameter provides easy reading option from relatively long distances.
- Featured with a red marked area for remaining time for long distance observation.
- Can be used on bench top or also can be hanged to any smooth surface.

catalogue number	pack quantity
055.04.001	1 piece



TIMER - *"electronic"*

- Electronic timer counts up to 19 hours, 59 minutes with a 4 digit display for extended hours. Also featured with count-down function.
- A clear bell ring signals at the end of the preset time.
- A large LCD screen with 32 x 12 mm dimensions provides easy reading option from relatively long distances.
- The folding stand at the back housing offers a convenient angle for easy reading. Also featured with a clip at the back side.

catalogue number	timer dimensions	screen dimensions	pack quantity
056.03.001	53 x 62 x 12 mm	32 x 12 mm	1 piece



TIMER - *"electronic"*

- Electronic timer counts up to 59 minutes, 59 seconds with a 4 digit display. Also featured with count-down function.
- A clear bell ring signals at the end of the preset time.
- A large LCD screen with 50 x 26 mm dimensions provides easy reading option from relatively long distances.
- The folding stand at the back housing offers a convenient angle for easy reading of the results. A clip at the back side of the watch enables easy wall mounting.

catalogue number	timer dimensions	screen dimensions	pack quantity
056.02.001	69 x 69 x 15 mm	50 x 26 mm	1 piece



TIMER - *"electronic"*

- Electronic timer counts down with selected intervals of 10 seconds / 1 minute / 5 minute and 10 minute. A clear visual and audial signal flashes at the end of the selected time.
- LCD screen with 30 x 80 mm dimensions provides easy reading option from relatively long distances. The folding stand at the back housing offers a convenient angle for easy reading.
- A clip at the back side of the watch enables easy wall mounting. Can be hanged on metal surfaces with the two magnets provided at the back.

catalogue number	timer dimensions	screen dimensions	pack quantity
056.04.001	70 x 90 mm	30 x 80 mm	1 piece

density & sedimentation & temperature & time & pH & weight measurement

METER - "portable" - "pH & mV & temperature measurement"



- Offers an economical solution for measuring pH & mV and temperature. Simple to calibrate by one keyboard.
- Easy to replace electrode. The new electrode will be recognised automatically and shown at the display.
- Ergonomic, lightwight and waterproof (which can even float on water) housing enables perfect outdoor practice.
- Measured values are shown by a microprocessor based large LCD display.
- Stores maximum and minimum measured values in memory.
- Offers a switchable temperature selection of °C or °F.
- Featured with a low battery and energy consumption indicator.
- Automatic switch-off function closes the circuit after 10 minutes of non use.
- Supplied in a carring case, with instruction manual and calibration standard set.



Meters are supplied in a sturdy carry case complete with hand held stripe, pH buffer solutions, cleaning solution, instruction manuel and other standard accesories.

catalogue no: 616.01.001	pH	mV	Temp
range	-2.00 / 16.00 pH	-1000 / 1000	0 / 90°C
accuracy	± 0.01+1 digit	± 2 + 1 digit	±1 + 1 digit
resolution	0.01 pH	1 mv	0.1°C
compensation	0 / 90°C		

METER - "portable" - "pH & mV & temperature & conductivity & TDS & salt measurement"



Supplied with a protective cap

All measurements are done by single electrode.

- Featured with automatic temperature compensation (ATC) . Offers a switchable temperature selection of °C or °F.
- Easy to replace electrode. The new electrode will be recognised automatically and shown at the display.
- Featured with a low battery and energy consumption indicator.
- Automatic switch-off function closes the circuit after 10 minutes of non use.
- Supplied in a carring case, with instruction manual and calibration standard set.

- Offers an economical solution for measuring pH & mV & temperature. & conductivity & TDS & salt with one single electrode.
- Ergonomic, lightwight and waterproof (which can even float on water) housing enables perfect outdoor practice.
- Simple to calibrate by one keyboard.
- Memory function stores and recalls different measurements.
- Microprocessor based large LCD displays show the measured values and the temperature simultaneously.



Meters are supplied in a sturdy carry case complete with hand held stripe, pH buffer solutions, cleaning solution, instruction manuel and other standard accesories.

catalogue no: 616.02.002	pH	mV	Temp	Conductivity	TDS	Salt
range	-2.00 / 16.00 pH	-1999 / 2000	0 / 110°C	0 / 199.9 µs 2.00 / 100.00 ms	0 / 131.9 ppm 1.30 / 13.19 ppt	0 / 99.9 ppm 10 / 50.00 ppt
accuracy	± 0.01+1 digit	± 2 + 1 digit	±0,2 + 1 digit	± 2 % FS		
resolution	0.01 pH	0,1 / 1 mv	0.1°C	0.1 µS / 0.01 mS	1 ppm / 0.01 ppt	
compensation	0 / 100°C			0 / 50°C		

density & sedimentation & temperature & time & pH & weight measurement



METERS - *"table top"*

- Featured with microprocessor based design and rugged housing with splash proof keyboard.
- Microprocessor based large LCD display enables fast and accurate measurements.
- Automatic calibration enables fast measuring cycles.
- Easy replacement of electrode and the type of the electrode would be recognised automatically and shown on the display during insertion.
- Can measure and display (depending on model) pH & mV & temperature & conductivity & TDS & salt & dissolved oxygen in seconds.
- The large backlight LCD displays pH or mV or conductivity or TDS or salt or dissolved oxygen and temperature simultaneously.
- Offers a switchable temperature selection of °C or °F.
- Featured with an automatic temperature compensation (ATC).
- Stores maximum and minimum measured values in memory. Memory function can keep and recall up to 150 data.



Table top meters have a special platform with a magnetic stirrer which enables fast and accurate measurements and results.

Membrane keypad with large backlight LCD displays pH or mV or conductivity or TDS or salt or dissolved oxygen and temperature simultaneously.

	catalogue no: 616.11.001		
	pH	ORP	Temp
range	-2.00 / 16.00 pH	-1999 / -200 mV -199.9 / 499.9 mV 500 / 2000 mV	0 / 110°C
accuracy	± 0.01+1 digit	± 2 + 1 digit	±0.2+1 digit
resolution	0.01 pH	0.1 / 1 mv	0.1°C
compensation	ATC: 0 / 100°C	N / A	

	catalogue no: 616.12.001							
	pH	mV	Temp	Conductivity	TDS	Salt	DO	O2
range	-2.00 / 16.00 pH	-1999 / -200 mV -199.9 / 499.9 mV 500 / 2000 mV	0 / 110°C	0.0 ~ 199.9 µS 200 ~ 1999 µS 2.00 ~ 19.99 mS 20.0 ~ 100.0 mS	0.0 ~ 131.9 ppm 132 ~ 1319 ppm 1.32 ~ 13.19 ppt 13.2 ~ 66.0 ppt	0.0 ~ 99.9 ppm 100 ~ 999 ppm 1.00 ~ 9.99 ppt 10.0 ~ 50.0 ppt	0 / 20.00 mg/L 0 / 20.00 ppm	0 / 200.0 %
accuracy	± 0.01+1 digit	± 2 + 1 digit	±1+1 digit	± 2 % FS			± 0.2 + 1 digit	± 2 % FS
resolution	0.01 pH	0.1 / 1 mv	0.1°C	0.1/1 µS/0.01/0.1 mS	0.1/1 ppm/0.01/0.1 ppt	0.1/1 ppm/0.01/0.1 ppt	0.01 mg / L	0.10%
compensation	ATC: 0 / 100°C	N / A		ATC: 0 ~ 50°C			ATC: 0 / 60°C MSC: 0 / 50 ppt MAC: 0 / 20000 ft	

ACCESORIES - *"for pH meters"*



Soaking solution - 50 ml
Catalog No: 616.01.101



DO solution - 50 ml
Catalog No: 616.11.107



Conductivity solution - 120 ml
Catalog No: 616.11.101



Conductivity solution - 120 ml
Catalog No: 616.11.102

for 616.01.001



pH electrode
Catalog No: 616.01.103

for 616.01.001



ORP electrode
Catalog No: 616.01.104

for 616.02.002



pH electrode
Catalog No: 616.02.101

for 616.02.002



ORP electrode
Catalog No: 616.02.102

for 616.11.001 & 616.12.001



pH electrode
Catalog No: 616.11.103

for 616.12.001



Conductivity electrode
Catalog No: 616.11.104

for 616.12.001



DO probe
Catalog No: 616.11.105

for 616.11.001 & 616.12.001



Temperature probe
Catalog No: 616.11.108

PH BUFFER SOLUTIONS

- Ready to use pH buffer solutions with color coding, accuracy +/- 0,01 pH at 20°C.
- Traceable to NIST, packed in unique designed, practical twin-neck dosing bottles!
- **Unique and innovative design of the "twin neck" dosing bottles offers multiple advantages:**
- No need for a separate measuring container during calibration.
- No waste of buffer since exact and correct quantity of buffer is dispensed into the calibrating chamber at all times.
- Ideally suited for field work and easy to carry.

Operation is simple, fast and easy;

- Open safety lock of the integrated calibration chamber.
- Fill calibration chamber from buffer resorvoir by pressing the bottle gently.
- Calibrate pH electrode then discard used buffer solution. Bottle is now ready for the following use.

Other types of pH buffers can be selected from chemical section.





catalogue number	pH range	color	volume	pack quantity
502.04.250	pH 4.00	red	250 ml	1 piece
502.04.500	pH 4.00	red	500 ml	1 piece
502.04.901	pH 4.00	red	1000 ml	1 piece
502.07.250	pH 7.00	yellow	250 ml	1 piece
502.07.500	pH 7.00	yellow	500 ml	1 piece
502.07.901	pH 7.00	yellow	1000 ml	1 piece
502.10.250	pH 10.00	blue	250 ml	1 piece
502.10.500	pH 10.00	blue	500 ml	1 piece
502.10.901	pH 10.00	blue	1000 ml	1 piece


Fill calibration chamber from buffer resorvoir by gently pressing the bottle.


Calibrate pH electrode.


Then discard used buffer solution. Bottle is now ready for the following use.



LITHMUS PAPERS

➤ Lithmus papers are the simplest and easiest way to measure pH values where no precise pH value is required.

➤ They are usefull for determining whether a solution is acidic or basic.

• **Available 2 papers:** • **Red lithmus papers** • **Blue lithmus paper**

➤ The red lithmus paper has a pH measurement range 5,0 pH to 8,0 pH. The color changes from red → blue

➤ The blue lithmus paper has a pH measurement range 8,0 pH to 5,0 pH. The color changes from blue → red

➤ Lithmus papers are packed as a booklet of 20 papers. 10 booklets are packed in a polystrene box for hygienic storage and for easy dispensing.

catalogue number	paper type	paper qty. in booklet	pack quantity
101.01.001	red litmus paper	20 papers	10 booklets
101.01.002	blue litmus paper	20 papers	10 booklets

PH INDICATOR STRIPS



➤ They provide precise pH measurement of solutions by using single color change.

➤ pH measurement pads with different colors are chemically bounded to a cellulose fiber stick.

➤ This effectively protects the sample against contamination and enables measurements even in weakly buffered of strongly alkaline solutions.

➤ Fingers are protected from the test solution since the test pads are located at the extreme end of the strips.

➤ Since the pads do not bleed, pad colors do not interfere and mix with each other after the test and ensures reliable pH mesurement.

➤ After the measurement, the pH value can be found by matching the colors on the pads with the reference color chart printed at the back side of the box.

➤ 100 pieces strip is packed in a clear polystrene box for hygienic storage and for easy dispensing.

catalogue number	strip brand	pH measuring range	pH graduation	strip width	strip length	pack quantity	box quantity
101.02.001	ISOLAB	0,0 - 14,0 pH	1,0 pH	6 mm	80 mm	100 strips	1000 strips
101.02.003	Macharey - Nagel	0,0 - 14,0 pH	1,0 pH	6 mm	80 mm	100 strips	1000 strips
101.02.004	Macharey - Nagel	0,0 - 6,0 pH	0,5 pH	6 mm	80 mm	100 strips	1000 strips
101.02.005	Macharey - Nagel	2,0 - 9,0 pH	0,5 pH	6 mm	80 mm	100 strips	1000 strips
101.02.006	Macharey - Nagel	4,5 - 10,0 pH	0,5 pH	6 mm	80 mm	100 strips	1000 strips
101.02.007	Macharey - Nagel	6,0 - 10,0 pH	0,5 pH	6 mm	80 mm	100 strips	1000 strips
101.02.008	Macharey - Nagel	7,0 - 14,0 pH	0,5 pH	6 mm	80 mm	100 strips	1000 strips

PH PAPER - *"universal" - "roll"*



- Most commonly used pH papers for a wide field of application of pH measurement.
- They can measure pH values between 1,0 pH to 14,0 pH with 1 pH intervals.
- They provide easy pH measurement of solutions by using single color change.
- After the measurement, the pH value can be found by matching the color on the paper with the reference color chart printed at the back side of the box.
- Supplied as a roll of 6 mm width and 5 meters length. Each roll is packed in a clear polystrene box for hygienic storage and for easy dispensing.

catalogue number	pH - range	strip width	pack quantity
101.02.002	1 - 14 pH	6 mm	5 meters

TEST STRIPS - *"PEHANON"*



- A very special test strip for pH measurement which unifies the pH-indicator with the reference pH color chart on the same strip.
- pH values can be determined without a separate color chart.
- They provide precise pH measurement of solutions by using single color change.
- The user can be sure to get accurate pH values at all times.
- Fast measurement results are guaranteed since they do not require an addition step of matching the pad color with a reference color scale.
- The handle will remain dry and clean since the invisible hydrophobic barrier just above the top color field prevents capillary action of the test solution.
- 200 pieces strip is packed in a clear polystrene box for hygienic storage and for easy dispensing.

catalogue number	strip brand	pH measuring range	pH graduation	strip width	strip length	pack quantity	box quantity
101.04.001	Macharey - Nagel	1,0 - 2,8 pH	0,2 / 0,3 pH	6 mm	80 mm	200 strips	2000 strips
101.04.002	Macharey - Nagel	2,8 - 4,6 pH	0,2 / 0,3 pH	6 mm	80 mm	200 strips	2000 strips
101.04.003	Macharey - Nagel	3,8 - 5,5 pH	0,2 / 0,3 pH	6 mm	80 mm	200 strips	2000 strips
101.04.004	Macharey - Nagel	5,2 - 6,8 pH	0,2 / 0,3 pH	6 mm	80 mm	200 strips	2000 strips
101.04.005	Macharey - Nagel	6,0 - 8,1 pH	0,2 / 0,3 pH	6 mm	80 mm	200 strips	2000 strips
101.04.006	Macharey - Nagel	8,0 - 9,7 pH	0,2 / 0,3 pH	6 mm	80 mm	200 strips	2000 strips
101.04.007	Macharey - Nagel	9,5 - 12,0 pH	0,5 pH	6 mm	80 mm	200 strips	2000 strips
101.04.008	Macharey - Nagel	12,0 - 14,0 pH	0,5 pH	6 mm	80 mm	200 strips	2000 strips



QUANTOFIX TEST STRIPS - *"peroxide"*

- A very special "ready-to-use" test strip with semi-quantitative nature for various measurements.
- Can be considered as ready to use kits that give precise results 10 – 120 seconds after use. Precise graduations guarantees reliable test results.
- The color chart is adjusted by certified standard solutions which are directly traceble to NIST standards.
- For reliable test results and longevity of the strip closing the cap after removing the strip is recommended.
- The desiccant in the stopper also effectively protects the strip against moisture.
- 100 pieces strip are packed in a box for hygienic storage and for easy dispensing



Dip the test strip in sample as far as the arrow for one second. *Shake off excess liquid and place the strip on a horizontal surface.* *Read the result by comparing the test field with the color scale.*

catalogue number	product name	product type	graduation	strip width	strip length	pack quantity	box quantity
101.03.003	QUANTOFIX	PEROXIDE 100	0 - 1 - 3 - 10 - 30 - 100 mg/L H_2O_2	6 mm	95 mm	100 strips	1000 strips



AQUADUR TEST STRIPS

- A special "ready-to-use" test strip for determination of water hardness.
- Clear color changes from green to red guarantee reliable test results.
- Can precisely determine water hardness in a liquid very precisely from very soft water to very hard water.
- Since the color change is very clear and sharp with green / red indication they do not require any reference color scale for matching.
- The hardness of the water depends on its content of calcium and magnesium salts and expressed in terms of ppm (mg/l) CaCO3
- Water is often simply classified as "soft water" or "hard water" etc. Below table indicates international references.
  - < 50 ppm : very soft water
  - 50 - 120 ppm : soft water
  - 120 - 240 ppm : medium water
  - 240 - 360 ppm : hard water
  - > 360 ppm : very hard water
- 100 pieces strip are packed in a box for hygienic storage and for easy dispensing.



catalogue number	product name	graduation	strip width	strip length	pack quantity	box quantity
101.03.004	AQUADUR	<3 - >5 - >10 - >15 - >20 - >25 °d	6 mm	95 mm	100 strips	1000 strips

TEST STRIPS - *"for water hardness"*

- In dialysis hard water can damage the delicate osmosis units.
- For this reason accurate and quick testing of water hardness is very important
- "Diaquant" test strips are specially designed for reliable and accurate low-range water hardness tests of rinse and feed water specially at dialysis enviroment.
- All water hardness tests are done simple and fast without any mixing.
- The easy dip & read procedure provides a reliable result in 10 seconds.
- After the test color changes from white to pink.
- Packed in a box of 50 strips of 6 mm width and 95 mm length.



catalogue number	graduation	pack quantity
101.03.005	0 - 5 - 10 - 20 ppm $CaCO_3$	50 pieces

TEST STRIPS - *"for potassium iodide starch"*



- Provides reliable, easy and quick detection of nitrite and free chlorine.
- Test can be run either by dipping the test strip into the sample or by dropping the sample on the test strip.
- After the test color changes from white to blue/violet.
- Packed in a box of 100 strips of 10 mm width and 75 mm length.

catalogue number	limit of sensivitivity	pack quantity
101.03.006	1 mg/l NO_2 / 1 mg/l free Cl_2	100 pieces

TEST STRIPS - *"for oil test"*

- Provides easy and quick test of oil contaminations of water and soil.
- Limit of sensitivity:
  Petroleum ether: 250 mg/L
  Gasoline: 10 mg/L
  Fuel oil: 5 mg/L
  Lubricating oil: 1 mg/L
- For determine the oil in soil, press the stick against the soil and rinse with clear water.
- For determine the oil in water move the stick back and forth a few times in the sample.
- After the test color changes from blue to dark blue.
- strips of 20 mm width and 70 mm length.



catalogue number	limit of sensivitivity	pack quantity
101.03.007	depending on oil type	100 pieces

TEST STRIPS - *"for ozone test"*

- Ozone is a colourless toxic gas which can irritate the eyes and cause respiratory complaints.
- For this reason ozone testing is getting more and more important.
- Provides easy and quick detection of ozone concentrations in air.
- The easy test procedure provides a reliable result in 10 minutes.
- After the test color changes from white to brown.
- Packed in a box of 12 strips of 10 mm width and 96 mm length.



catalogue number	limit of sensivitivity	pack quantity
101.03.008	< 90 / 90-150 / 150-210 / >210 ug/m^3 O_3	12 pieces

density & sedimentation & temperature & time & pH & weight measurement



BALANCE - *"0,0001 gr precision"*

- Provides comfortable and reliable weighing with 0,0001 gr precision with single cell weighing system.
- Microprocessor controlled weighing technology guarantees fast and precise results at any time.
- Equipped with internal fully automatic calibration for quick setting of the balance.
- Featured with easy-to-read, large, backlite LCD display with advanced eye protection system. The user can easily read the indications in the display without the risk of reading errors.
- State-of-art touch button screen with ergonomically optimised keypad for left and right handed users. When a key is pressed, the pad responds immediately, even if the user is wearing protective gloves.
- Compact size suitable for small spaces. Occupies minimal space on the laboratory bench, yet maintains optimal performance.
- Robust housing protects internal components from environmental effects. The smooth surface allows the spills and finger prints to be wiped off easily.
- Removable, stainless steel pan with 90 mm diameter allows easy cleaning.
- Supplied with a dust cover.

catalogue no	602.31.001
weighing range (g)	220
readability (g)	0,0001
reproducibility (mg)	± 0,1
linearitiy (mg)	± 0,2
pan diameter (mm)	90
weighing units	mg, g, kg, lb, oz, ozt, gn, ct
calibration	internal, fully automatic
display	LCD
cabin type	full
overall dimensions (mm)	342 x 212 x 341



Glass windshield with sliding doors offers optimal visibility and guarantees easy access to the weighing pan.



Featured with easy-to-read, large, backlite LCD display with advanced eye protection system.

STATISTICAL PRINTER

- Practical and easy to use printer that can be attached to all balances via RS232C interface.



- Weighing results can be statistically evaluated. Min value, standard deviation, total weight are automatically printed out due to built-in statistic and totalization function.
- Also offers complete documentation of all data including calibration, weighing results, correct date and time informations.

catalogue no	602.31.101
features	date, time, statistic and totalization
printer	dot matrix printer
no of characters per line	24 character
printing speed	faster than 1 line per second
paper size	57,5 x 0,5 mm
power supply	100 - 270 V / 50 - 60 Hz
dimensions (mm)	210 x 135 x 88
net weight (gr)	2000

density & sedimentation & temperature & time & pH & weight measurement

BALANCE - *"0,001 gr precision"*

- Provides comfortable and reliable weighing with 0,001 gr precision with single cell weighing system.
- Microprocessor controlled weighing technology guarantees fast and precise results at any time.
- Equipped with external weight calibration system for quick setting.
- Featured with easy-to-read, large, backlite LCD display. The user can easily read the indications in the display without the risk of reading errors.
- State-of-art touch button screen with ergonomically optimised keypad for left and right handed users. When a key is pressed, the pad responds immediately, even if the user is wearing protective gloves.
- Compact size suitable for small spaces. Occupies minimal space on the laboratory bench, yet maintains optimal performance.
- Robust housing protects internal components from environmental effects. The smooth surface allows the spills and finger prints to be wiped off easily.
- Removable, stainless steel pan with 85 mm diameter allows easy cleaning.
- Equipped with internal rechargeable battery. Supplied with a dust cover.





Glass windshield with sliding doors offers optimal visibility of the weighing samples and guarantees easy access to the weighing pan.

catalogue no	602.31.002
weighing range (g)	320
readability (g)	0,001
reproducibility (mg)	± 2
linearitiy (mg)	± 3
pan diameter (mm)	85
weighing units	g, kg, lb, oz, ozt, gn, ct
calibration	external
display	LCD
cabin type	full
overall dimensions (mm)	280 x 210 x 275



Level indicator and adjusting feet ensure proper balance setup for optimum weighing results.



Featured with easy-to-read, large, backlite LCD display with advanced eye protection system.

density & sedimentation & temperature & time & pH & weight measurement





BALANCE - *"0,01 gr precision"*

- Provides comfortable and reliable weighing with 0,01 gr precision with single cell weighing system.
- Microprocessor controlled weighing technology guarantees fast and precise results at any time.
- Equipped with external weight calibration system for quick setting.
- Featured with easy-to-read, large, backlite LCD display. The user can easily read the indications in the display without the risk of reading errors.
- State-of-art touch button screen with ergonomically optimised keypad for left and right handed users. When a key is pressed, the pad responds immediately, even if the user is wearing protective gloves.
- Compact size suitable for small spaces. Occupies minimal space on the laboratory bench, yet maintains optimal performance.
- Robust housing protects internal components from environmental effects. The smooth surface allows the spills and finger prints to be wiped off easily.
- Glass windshield (except model 602.31.005) with sliding doors offer optimal visibility of the weighing samples and guarantees easy access to the weighing pan.
- Level indicator and adjusting feet ensure proper balance setup for optimum weighing results.
- Removable, stainless steel pan allows easy cleaning.
- Equipped with internal rechargeable battery. Supplied with a dust cover.



Featured with easy-to-read, large, backlite LCD display. The user can easily read the indications in the display without reading errors.



Level indicator and adjusting feet ensure proper balance setup for optimum weighing results.

catalogue no	602.31.003	602.31.004	602.31.005	602.31.006
weighing range (g)	1200	2200	3200	4200
readability (g)	0,01	0,01	0,01	0,01
reproducibility (mg)	± 20	± 20	± 20	± 20
linearitiy (mg)	± 20	± 30	± 30	± 40
pan dimensions (mm)	Ø 130	Ø 130	Ø 130	185 x 160
weighing units	g, kg, lb, oz, ozt, gn, ct	g, kg, lb, oz, ozt, gn, ct	g, kg, lb, oz, ozt, gn, ct	g, kg, lb, oz, ozt, gn, ct
calibration	external	external	external	external
display	LCD	LCD	LCD	LCD
cabin type	half size	half size	non	non
overall dimensions (mm)	280 x 210 x 180	280 x 210 x 180	280 x 210 x 100	280 x 210 x 100

density & sedimentation & temperature & time & pH & weight measurement



BALANCE - *"0,1 gr precision"*

- Provides comfortable and reliable weighing with 0,1 gr precision with single cell weighing system.
- Microprocessor controlled weighing technology guarantees fast and precise results at any time.
- Equipped with external calibration system for quick setting.
- Featured with easy-to-read, large, backlite LCD display. The user can easily read the indications in the display without the risk of reading errors.
- State-of-art touch button screen with ergonomically optimised keypad for left and right handed users. When a key is pressed, the pad responds immediately, even if the user is wearing protective gloves.
- Compact size suitable for small spaces. Occupies minimal space on the laboratory bench.
- Robust housing protects internal components from environmental effects.
- Lever indicator and adjusting feet ensure proper balance setup for optimum weighing results.
- Removable, stainless steel pan with dimensions 185 x 160 mm allows easy cleaning.
- Equipped with internal rechargeable battery.

catalogue no	602.31.007
weighing range (g)	6200
readability (g)	0,1
reproducibility (mg)	± 100
linearitiy (mg)	± 200
pan dimensions (mm)	185 x 160
weighing units	g, kg, lb, oz, ozt, gn, ct
calibration	external
display	LCD
cabin type	non
overall dimensions (mm)	280 x 210 x 100



BALANCE - *"0,01 gr precision"*

- Provides comfortable and reliable weighing with 0,01 gr precision.
- Compact size suitable to fit even into a pocket. Occupies minimal space on the laboratory bench, yet maintains optimal performance. Ideal assistant where mobility and precision are required.
- Microprocessor controlled weighing technology guarantees fast and precise results at any time.
- State-of-art touch button screen with ergonomically optimised keypad for left and right handed users. When a key is pressed, the pad responds immediately, even if the user is wearing protective gloves.
- Robust housing protects internal components from environmental effects. The smooth surface allows the spills and finger prints to be wiped off easily.
- Stainless steel pan with 100 x 100 mm dimensions allows easy cleaning.
- Battery operated. Featured with auto power off after 30 seconds for energy saving.



Featured with easy-to-read, large, backlight LCD display.

catalogue no	602.32.001
weighing range (g)	500
readability (g)	0,01
reproducibility (mg)	± 50
linearitiy (mg)	± 50
pan dimensions (mm)	100 x 100
weighing units	g, oz, gn
calibration	---------
display	LCD
cabin type	non
overall dimensions (mm)	127 x 106 x 19



WEIGHING DISHES (BOATS) - *"diamond form"*

- Manufactured from polystyrene for many applications such as weighing, dispensing and storing.
- Since the anti-static property of the raw material eliminates the static built-up, they are specially recommended for weighing fine powders.
- They can also be used as freeze and mixing trays for small batches and also during microwave moisture analysis.
- Guarantees excellent chemical and temperature resistance between -10°C to +70°C.
- Flat bottom ensures perfect stability on counters while smooth and non-porous inner surface provides accurate pour outs with minimal sample loss.

- **Available 2 weighing dishes:**
  - **Non-sterilized**
  - **Gamma sterilized**



With a slight pressure to the sides weighing dishes can easily be coverted into a pouring funnel for easy and non-spill transfer of samples.

non-sterile	sterile	dish volume	dish color	non-sterile pack qty.	sterile pack qty.
037.05.005	037.15.005	5 ml	white	100 pieces	10 pieces
037.05.030	037.15.030	30 ml	white	100 pieces	10 pieces
037.05.100	037.15.100	100 ml	white	100 pieces	10 pieces
037.06.005	037.16.005	5 ml	black	100 pieces	10 pieces
037.06.030	037.16.030	30 ml	black	100 pieces	10 pieces
037.06.100	037.16.100	100 ml	black	100 pieces	10 pieces



WEIGHING DISHES (BOATS) - *"square form"*

- Manufactured from polystyrene for many applications such as weighing, dispensing and storing.
- Since the anti-static property of the raw material eliminates the static built-up, they are specially recommended for weighing fine powders.
- They can also be used as freeze and mixing trays for small batches and also during microwave moisture analysis.
- Guarantees excellent chemical and temperature resistance between -10°C to +70°C.
- Flat bottom ensures perfect stability on counters while smooth and non-porous inner surface provides accurate pour outs with minimal sample loss.

- **Available 2 weighing dishes:**
  - **Non-sterilized**
  - **Gamma sterilized**



With a slight pressure to the sides weighing dishes can easily be coverted into a pouring funnel for easy and non-spill transfer of samples.

non-sterile	sterile	dish volume	dish color	non-sterile pack qty.	sterile pack qty.
037.09.007	037.19.007	7 ml	white	100 pieces	10 pieces
037.09.100	037.19.100	100 ml	white	100 pieces	10 pieces
037.09.250	037.19.250	250 ml	white	100 pieces	10 pieces
037.11.007	037.21.007	7 ml	black	100 pieces	10 pieces
037.11.100	037.21.100	100 ml	black	100 pieces	10 pieces
037.11.250	037.21.250	250 ml	black	100 pieces	10 pieces



WEIGHING DISHES - *"for moisture analysis"*

• Manufactured from high grade, oil free, durable and light gauge aluminium.

➤ Unique design guarantees excellent use with moisture determination balances.

➤ Can also be used as a mixing or weighing pan.

➤ Wall with 8 mm height guarantees spill-free application.

➤ Easily stackable due to the tapered body form for reducing storage space.

catalogue number	Ø x H (mm)	pack quantity
037.25.100	100x7	50 pieces



WEIGHING DISHES - *"with handle"*

➤ Manufactured from high grade, oil free, durable and light gauge aluminium. Featured with compressed walls for extra stability.

➤ Designed to be used as weighing dishes, evaporating dishes or drying dishes.

➤ Featured with a handle which enables easy holding of the dish. Can also be used as a marking surface.

➤ Easily stackable due to the tapered body form for reducing storage space.

catalogue number	Ø x H (mm)	pack quantity
037.24.045	49x12	100 pieces
037.24.055	60x15	100 pieces
037.24.065	66x16	100 pieces



WEIGHING DISHES - *"general purpose"*

➤ Manufactured from high grade, oil free, durable and light gauge aluminium. Featured with compressed walls for extra stability.

➤ Unique design offers variety of applications. They can be used as weighing dishes, as mixing dishes also even as dishes for storing samples.

➤ Easily stackable due to the tapered body form for reducing storage space.

catalogue number	Ø x H (mm)	pack quantity
037.23.070	70x22	100 pieces
037.23.085	88x38	100 pieces
037.23.110	110x34	100 pieces



WEIGHING SCOOPS - *"glass"*

➤ Made from glass with flat base ensuring stability on the ballance pans.

➤ Hallow stem enables very easy powder transfer.

catalogue number	max. volume	pack quantity
037.07.001	3 ml	1 piece
037.07.002	6 ml	1 piece
037.07.003	10 ml	1 piece



WEIGHING SCOOPS - *"stainless steel"*

➤ Manufactured from stainless steel.

➤ Highly polished smooth interior provides accurate pour outs without sample loss.

catalogue number	length	pack quantity
037.04.001	95 mm	1 piece
037.04.002	117 mm	1 piece
037.04.003	128 mm	1 piece

density & sedimentation & temperature & time & pH & weight measurement





WATCH GLASSES - *"glass"*

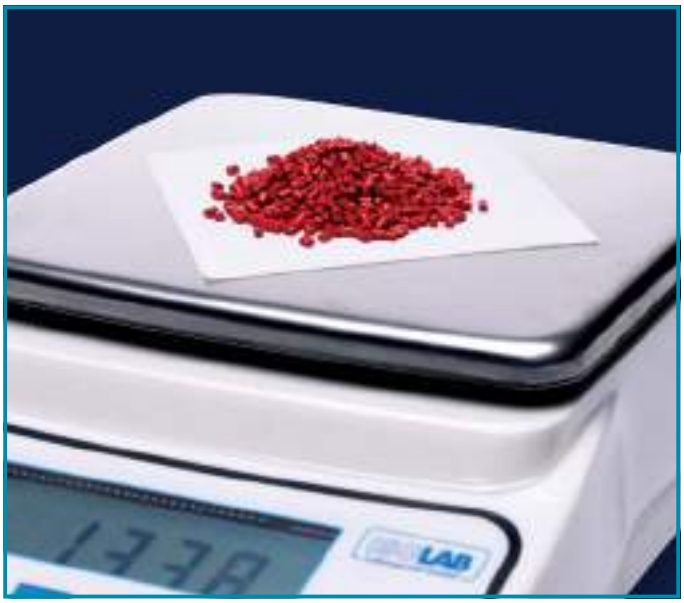
- Manufactured from soda-lime glass according to DIN 12341 standard.
- Ideal tools also for evaporation applications and for covering the hot beakers.
- Fire polished edges prevent chipping and avoid breakage.

catalogue number	Ø (mm)	pack quantity
037.01.050	50	10 pieces
037.01.060	60	10 pieces
037.01.070	70	10 pieces
037.01.080	80	10 pieces
037.01.100	100	10 pieces
037.01.125	125	10 pieces
037.01.150	150	10 pieces
037.01.200	200	10 pieces

WEIGHING BOTTLES - *"glass"*

- Manufactured from heat resistant, durable borosilicate glass complete with a lid.
- The interchangeable lids perfectly fit to the NS necks. Once closed they provide hermetical closure.
- White marking area on side wall enables easy marking and labelling.

catalogue number	Ø x H (mm)	pack quantity
037.02.254	25 x 40	1 piece
037.02.353	35 x 30	1 piece
037.02.402	40 x 25	1 piece
037.02.305	30 x 50	1 piece
037.02.503	50 x 30	1 piece
037.02.357	35 x 70	1 piece
037.02.603	60 x 30	1 piece
037.02.408	40 x 80	1 piece
037.02.803	80 x 30	1 piece
037.02.508	50 x 80	1 piece



WEIGHING PAPER

- Manufactured from impervious and transparent paper specially suitable for weighing.
- Leaves no residue and impurity during and after weighing application.
- Cut as 100 x 100 mm dimensions and packed as a booklet of 250 papers.

catalogue number	pack quantity
037.33.001	1 booklet



WEIGHING BRUSH

- Ideal tool for cleaning weighing boats, balance pans, weighing dishes and any similar object.
- Manufactured from extremely soft anti-static natural hair.
- Pointed tip provides excellent effective cleaning.
- Featured with a round wooden stem providing an efficient grip.

catalogue number	pack quantity
037.32.001	1 piece

ISOLAB Laborgeräte GmbH

DIN EN ISO CERTIFIED 9001







stirring & mixing
shaking & heating
cooling









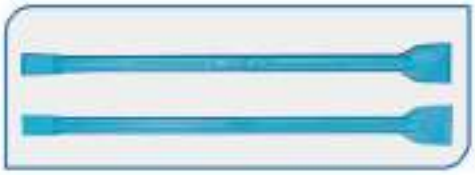














MAGNETIC STIRRER - *"with hot plate"*

- Explosion proof, maintenance free brushless DC motor with low noise level offers a stirring volume up to 20 lt with a smooth start and quick stop.
- Ceramic top plate guarantees perfect chemical resistance against acids. Also provides impact resistant, easily cleanable, scratch proof surface with excellent heat distribution.
- Integrated design of the heater and the top plate provides excellent heat transfer rate and quick heat up capability.
- Hermetically sealed aluminium alloy housing protects all mechanical and electronic components from aggressive effects and guarantees safety with a long life time.
- Electronic speed control from 100 to 1500 rpm provides a gentle revolution and precise stirring speed.
- PID temperature technology enables excellent heating control from ambient temperature to 550°C.
- Offers integrated temperature control (+/- 0,2°C accuracy) with external PT1000 temperature sensor and support rod.
- Overheat protection circuit turns off the heater if the top plate temperature reaches 580°C for any reason.
- Hot surface warning display indicates any residual heat even if switched off. LCD display will show **"HOT"** if hotplate temperature is over 50°C.
- Large LCD panel for simultaneous display for set & actual temperature and set & actual speed.
- Supplied complete with PT1000 temperature sensor, support rod and fixing clamp.



Explosion proof, maintenance free brushless DC motor with low noise level offers a stirring volume up to 20 lt with a smooth start and quick stop.

Electronic speed control from 100 to 1500 rpm provides a gentle revolution and precise stirring speed even at high temperature.



Large LCD panel for simultaneous display for set & actual temperature and set & actual speed.

*Hot surface warning display indicates any residual heat even if switched off. LCD display will show **"HOT"** if hot plate temperature is over 50°C.*

catalogue number	613.06.001
dimensions / weight (mm / kg)	215 x 360 x 112 / 5,3
top plate dimensions (mm)	184 x 184
top plate material	glass ceramic
motor type	brushless DC motor
power (W)	1050
voltage (V)	100 - 240
frequency (Hz)	50 / 60
max. stirring capacity (L)	20
speed range (rpm)	100 - 1500
speed & temp. display	LCD
heating output (W)	1000
heating range (°C)	room temp. - 550
heating accuracy (°C)	±1 < 100; ±1 % > 100
safety temperature (°C)	580
heating warning (°C)	50
permissible ambient temperature (°C)	5 - 40
permissible relative humidity (%)	80
standard accesories	external temp. sensor PT 1000
time control (minute)	N / A

MAGNETIC STIRRER - *"with hot plate"*

- Explosion proof, maintenance free brushless DC motor with low noise level offers a stirring volume up to 20 lt with a smooth start and quick stop.
- Ceramic top plate guarantees perfect chemical resistance against acids. Also provides impact resistant, easily cleanable, scratch proof surface with excellent heat distribution.
- Integrated design of the heater and the top plate provides excellent heat transfer rate and quick heat up capability.
- Hermetically sealed aluminium alloy housing protects all mechanical and electronic components from aggressive effects and guarantees safety with a long life time.
- Electronic speed control from 100 to 1500 rpm provides a gentle revolution and precise stirring speed.
- PID temperature technology enables excellent heating control from ambient temperature to 340°C.
- Offers integrated temperature control (+/- 0,2°C accuracy) with external PT1000 temperature sensor and support rod.
- Overheat protection circuit turns off the heater if the top plate temperature reaches 360°C for any reason.
- Hot surface warning display indicates any residual heat even if switched off. LCD display will show **"HOT"** if hot plate temperature is over 50°C.
- Large LCD panel for simultaneous display for set & actual temperature and set & actual speed.
- Supplied complete with PT1000 temperature sensor, support rod and fixing clamp.



613.02.002 magnetic stirrer has an automatic timer function which enables time control from 1 minute to 99 hour and 59 min.

catalogue number	613.02.001	613.02.002
dimensions / weight (mm / kg)	160 x 280 x 85 / 2,8	
top plate dimensions (mm)	Ø135	
top plate material	ceramic coated stainless steel	
motor type	brushless DC motor	
power (W)	550	
voltage (V)	100 - 240	
frequency (Hz)	50 / 60	
max. stirring capacity (L)	20	
speed range (rpm)	100 - 1500	
speed & temp. display	LCD	
heating output (W)	500	
heating range (°C)	room temp. - 340	
heating accuracy (°C)	±1 < 100; ±1 % > 100	
safety temperature (°C)	360	
heating warning (°C)	50	
permissible ambient temperature (°C)	5 - 40	
permissible relative humidity (%)	80	
standard accesories	external temp. sensor PT 1000	
time control (minute)	N / A	1 min to 99 hr - 59 min

heating blocks - "for magnetic stirrers"



Manufactured from aluminium alloy with perfect heat transfer. Suitable for round bottom flasks.

The hole on the heating block enables insertion of the PT1000 external temperature sensor for precise control of the block temperature.



catalogue number	flask volume	block material	pack quantity
613.02.050	50 ml	aluminium	1 piece
613.02.100	100 ml	aluminium	1 piece
613.02.250	250 ml	aluminium	1 piece
613.02.500	500 ml	aluminium	1 piece



MAGNETIC STIRRER - *"with hot plate"*

- Maintenance free brushless DC motor with low noise level offers a stirring volume up to 3 lt with a smooth start and quick stop.
- Ceramic coated stainless steel top plate guarantees perfect chemical resistance specially against strong acids. Also provides impact resistant, easily cleanable, scratch proof surface with excellent heat distribution.
- Integrated design of the heater and the top plate provides excellent heat transfer rate and quick heat up capability.
- ABS housing protects all mechanical and electronic components from aggressive effects and guarantees safety with a long life time.
- Electronic speed control from 100 to 1500 rpm provides a gentle revolution and precise stirring speed.
- PID temperature technology enables excellent heating control from ambient temperature to 280°C.
- Offers integrated temperature control (+/- 0,2°C accuracy) with external PT1000 temperature sensor and support rod.
- Overheat protection circuit turns off the heater if the top plate temperature reaches 320°C for any reason.
- Hot surface warning display indicates any residual heat even if switched off. LCD display will show **"HOT"** if hotplate temperature is over 50°C.
- Large LCD panel for simultaneous display for set & actual temperature and set & actual speed.
- Supplied complete with PT1000 temperature sensor, support rod and fixing clamp.



Maintenance free brushless DC motor with low noise level offers a stirring volume up to 3 lt with a smooth start and quick stop.



*Hot surface warning display indicates any residual heat even if switched off. LCD display will show **"HOT"** if hot plate temperature is over 50°C.*

catalogue number	613.01.001
dimensions / weight (mm / kg)	150 x 260 x 80 / 1,8
top plate dimensions (mm)	Ø135
top plate material	ceramic coated stainless steel
motor type	DC motor
power (W)	515
voltage (V)	100 - 240
frequency (Hz)	50 / 60
max. stirring capacity (L)	3
speed range (rpm)	100 - 1500
speed & temp. display	LED
heating output (W)	500
heating range (°C)	room temp. - 280
heating accuracy (°C)	±1 < 100; ±1 % > 100
safety temperature (°C)	320
heating warning (°C)	50
permissible ambient temperature (°C)	5 - 40
permissible relative humidity (%)	80
standard accesories	external temp. sensor PT 1000
time control (minute)	N / A



MAGNETIC STIRRER - *"without hot plate"*

- Maintenance free DC motor with low noise level offers a stirring volume up to 3 lt with a smooth start and quick stop.
- Electronic speed control from 100 to 1500 rpm provides a gentle revolution and precise stirring speed even at maximum speed range.
- Large LED panel offers simultaneous display for set & actual speed.
- ABS housing protects all mechanical and electronic components from aggressive effects and guarantees safety with a long life time.
- Also provides impact resistant, easily cleanable, scratch-proof surface.



Large LED panel offers simultaneous display for set & actual speed.

catalogue number	613.03.001
dimensions / weight (mm / kg)	150 x 260 x 80 / 1,8
top plate dimensions (mm)	Ø135
power (W)	15
voltage (V)	220
frequency (Hz)	50 / 60
max. stirring capacity (L)	3
speed range (rpm)	100 - 1500
speed & temp. display	LED



MAGNETIC STIRRER - *"without hot plate"*

- This ultra-flat, compact designed magnetic stirrer with only 350 gr weight can be carried even in a pocket.
- Specially recommended for titration applications.
- Offers a stirring volume up to 0,8 lt with a smooth start and quick stop.
- Electronic speed control from 15 to 1500 rpm provides a gentle revolution and precise stirring speed even at maximum speed range.
- Featured with bidirectional automatic reverse rotation function for better and more efficient mixing results.
- ABS housing protects all mechanical and electronic components from aggressive effects and guarantees safety with a long life time.
- Also provides impact resistant, easily cleanable, scratch-proof surface.



Featured with bidirectional automatic reverse rotation function for better and more efficient mixing results.

catalogue number	613.07.001
dimensions / weight (mm / kg)	115 x 175 x 12 / 0,35
mixing plate diameter (mm)	100
power (W)	5
voltage (V)	220
frequency (Hz)	50 / 60
max. stirring capacity (L)	0,8
speed range (rpm)	15 - 1500
speed & temp. display	----------

stirring & mixing & shaking & heating & cooling



MAGNETIC STIRRER - *"without hot plate"*

- This light weight, compact designed magnetic stirrer is specially recommended for titration applications.
- Electronic speed control from 300 to 2.000 rpm provides a gentle revolution and precise stirring speed even at maximum speed range.
- High performance brushless DC motor offers a stirring volume up to 1,5 lt with a smooth start and quick stop.
- PET housing protects all mechanical and electronic components from aggressive effects and guarantees safety with a long life time
- Anti-slip silicone feet pads minimize vibration and guarantee excellent stability.
- Featured with an adjustable clamp holder suitable to hold electrodes and similar other probes.

catalogue number	613.05.001
dimensions / weight (mm / kg)	150 x 145 x 50 / 0,3
top plate dimensions (mm)	Ø120
top plate material	PET
motor type	DC motor
power (W)	7,2
voltage (V)	220
frequency (Hz)	50 / 60
max. stirring capacity (L)	1,5
speed range (rpm)	300 - 2000
speed & temp. display	N / A



MAGNETIC STIRRER - *"without hot plate"*

- This light weight, compact designed magnetic stirrer is specially recommended for titration applications.
- Electronic speed control from 15 to 2.000 rpm provides a gentle revolution and precise stirring speed even at maximum speed range.
- High performance brushless DC motor offers a stirring volume up to 1,5 lt with a smooth start and quick stop.
- ABS housing protects all mechanical and electronic components from aggressive effects and guarantees safety with a long life time.
- Stainless steel stirring plate provides impact resistant, easily cleanable, scratch-proof surface.
- Featured with an adjustable clamp holder suitable to hold electrodes and similar other probes.

catalogue number	613.04.001
dimensions / weight (mm / kg)	150 x 135 x 53 / 0,71
top plate dimensions (mm)	Ø120
top plate material	steel
motor type	DC motor
power (W)	15
voltage (V)	220
frequency (Hz)	50 / 60
max. stirring capacity (L)	1
speed range (rpm)	0 - 2000
speed & temp. display	N / A



MAGNETIC STIRRER - *"multi position" "without hot plate "*

- Specially designed for applications where more than one stirring position is required.
- Maintenance free brushless DC motor with low noise level offers a smooth start and quick stop.
- Featured with 10 stirring positions with each guarantees stirring capacity up to 0,4 lt.
- Stainless steel stirring plate provides impact resistant, easily cleanable, scratch proof surface.
- Stirring plate is covered with an anti-slip silicone film for advanced protection.
- Electronic speed control from 15 to 1.100 rpm provides a gentle revolution and precise stirring speed even at maximum speed range.

catalogue number	613.08.001
dimensions / weight (mm / kg)	182 x 552 x 65 / 3,2
top plate dimensions (mm)	180 x 450
top plate material	steel
stirring positions	10
motor type	Brushless - DC motor
power (W)	20
voltage (V)	100 - 240
frequency (Hz)	50 / 60
max. stirring capacity (L)	40
speed range (rpm)	15 - 1100
speed & temp. display	N / A

MAGNETIC STIRRER - *"multi position" "with hot plate "*

- Specially designed for applications where more than one stirring position is required.
- Maintenance free brushless DC motor with low noise level offers a smooth start and quick stop.
- Featured with 10 stirring positions with each guarantees stirring capacity up to 0,4 lt.
- Stainless steel stirring plate provides impact resistant, easily cleanable, scratch-proof surface. Stirring plate is covered with an anti-slip silicone film for advanced protection.
- Hot plate enables heating control from ambient to 120°C.
- Electronic speed control from 15 to 1.100 rpm provides a gentle revolution and precise stirring speed even at maximum speed range.

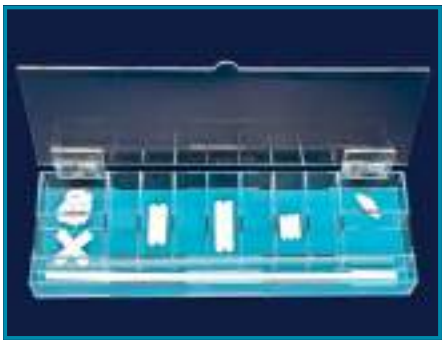
catalogue number	613.32.001
dimensions / weight (mm / kg)	182 x 552 x 65 / 3,2
top plate dimensions (mm)	180 x 450
top plate material	steel
stirring positions	10
motor type	Brushless - DC motor
power (W)	490
voltage (V)	100 - 240
frequency (Hz)	50 / 60
max. stirring capacity (L)	40
speed range (rpm)	15 - 1100
speed & temp. display	N / A



MAGNETIC STIRRING BARS *"cylindirical"*

- Manufactured from ALNICO (an alloy of aluminium, nickel, iron and cobalt) magnets encapsulated with PTFE coating.
- Cylindrical magnetic stirring bars offer for a wide variety of applications providing excellent mixing effect.
- Polished finish provides excellent centering and smooth uninterupted stirring.
- Their perfect contacts with the base of the flask reduce the risk of ricochet during stirring.

catalogue number	length	diameter	pack quantity
057.01.010	10 mm	6 mm	10 pieces
057.01.015	15 mm	6 mm	10 pieces
057.01.020	20 mm	6 mm	10 pieces
057.01.025	25 mm	6 mm	10 pieces
057.01.030	30 mm	6 mm	10 pieces
057.01.035	35 mm	6 mm	10 pieces
057.01.040	40 mm	8 mm	10 pieces
057.01.045	45 mm	8 mm	10 pieces
057.01.050	50 mm	8 mm	6 pieces
057.01.060	60 mm	9 mm	6 pieces
057.01.070	70 mm	9 mm	6 pieces
057.01.080	80 mm	9 mm	6 pieces



BOX - *"with compartments"*

- Manufactured from acrylic featured with different size compartments. Offers practical positioning and easy reach of different size small objects such as magnetic stirrers.
- The long compartment is ideal to store longer objects including magnetic bar retrievers.
- Featured with a lid protecting the box interior from enviromental conditions and also reduces the risk of lost.

Other technical specifications can be seen at catalogue page no 69.



MAGNETIC STIRRING BARS *"oval - elliptical"*

- Manufactured from ALNICO (an alloy of aluminium, nickel, iron and cobalt) magnets encapsulated with PTFE coating.
- These elliptic magnetic stirrer bars provide excellent mixing effect specially when used with round bottom flasks.
- Their egg shapes guarantee unrestricted spinning and effective mixing by perfect adaptation of the vessel contour.

catalogue number	length	diameter	pack quantity
057.05.020	20 mm	8 mm	1 piece
057.05.025	25 mm	10 mm	1 piece
057.05.030	30 mm	11 mm	1 piece
057.05.035	35 mm	12 mm	1 piece
057.05.040	40 mm	15 mm	1 piece



MAGNETIC STIRRING BARS *"cross form"*

- Manufactured from ALNICO (an alloy of aluminium, nickel, iron and cobalt) magnets encapsulated with PTFE coating.
- Cross formed magnetic stirring bar creates a deep vortex even at relatively slow speeds and provides an excellent mixing.
- Their angled body forms reduce the friction effect during stirring and provide excellent centering and smooth uninterupted stirring.
- Their perfect contacts with the base of the flask reduce the risk of ricochet during stirring.

catalogue number	dimensions	pack quantity
057.06.037	37 x 37 mm	1 piece



STIRRING ROD - *"P.P"*

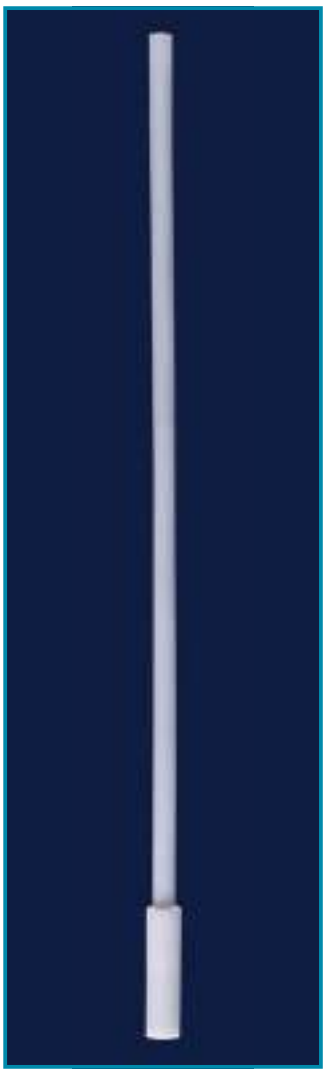
- Manufactured from polypropylene with a flattened ends for effective mixing.
- Offers practical solutions for mixing and stirring solutions both for narrow and wide neck flasks.
- Featured with two flat ends with different widths on a single handle.

catalogue number	total length	pack quantity
057.04.250	250 mm	10 pieces

STIRRING ROD - *"glass"*

- Glass rods are manufactured from rods with different diameters and lengths.
- Their flame polished ends prevents unexpected breakage during applications.
- They offer practical solutions for mixing and stirring solutions by hand.

glass stirring rod	length	diameter	pack quantity
057.03.200	200 mm	5 mm	10 pieces
057.03.250	250 mm	6 mm	10 pieces
057.03.300	300 mm	6 mm	10 pieces



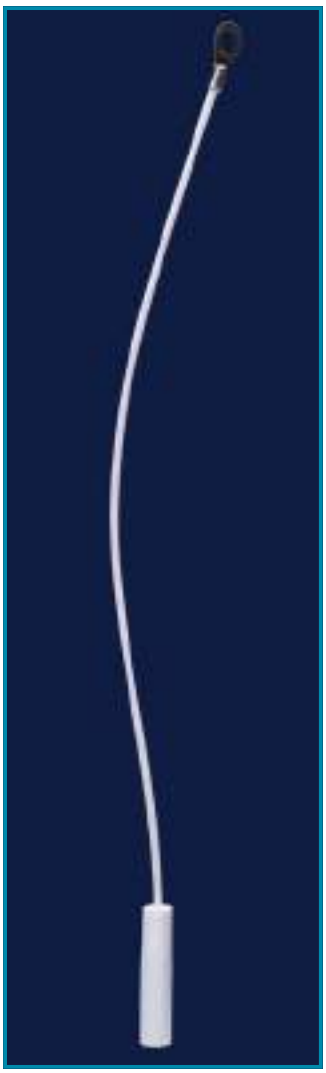
MAGNETIC BAR RETRIEVERS

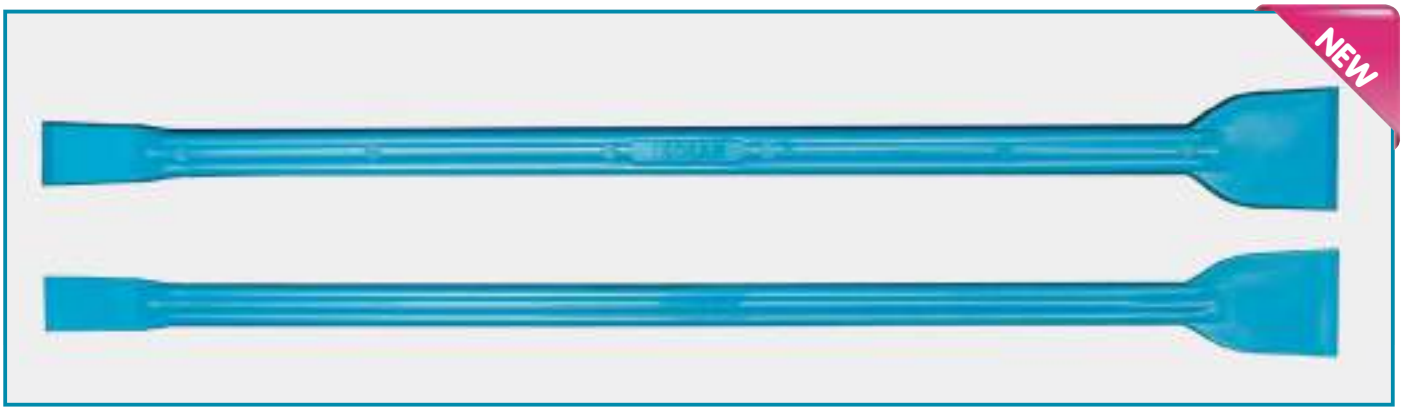
- Constructed with a PTFE encapsulated powerful magnet at the end of a long stem.
- Essential tool for picking up the magnetic stirring bars from flasks after use without loosing them.
- They offer risk-free removal of magnetic stirring bars even from agressive liquids and reduce the risk of magnetic bar loss.
- **Alternative 2 retrievers:**
  - **With solid stem**
  - **With flexible stem**
- Magnetic bar retriever with flexible stem guarantees easy reach to the edges of the cornered flasks such as erlenmeyers.

catalogue number	retriever model	stem length	pack quantity
057.02.001	solid stem	270 mm	1 piece
057.02.002	flexible stem	330 mm	1 piece





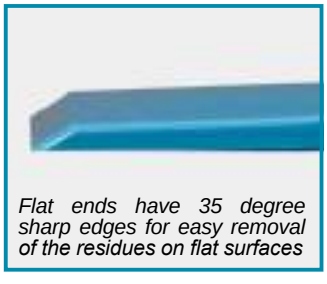




STIRRING ROD - *"polypropylene"*

- Manufactured from polypropylene with a flattened ends for effective mixing.
- Offers practical solutions for mixing and stirring solutions both for narrow and wide neck flasks.
- Featured with two flat ends with different widths on a single handle.
- Flat ends have 35 degree sharp edges for easy removal of the residues on flat surfaces.

catalogue number	total length	narrow end width	large end width	pack quantity
057.04.251	240 mm	12 mm	23 mm	10 pieces



Flat ends have 35 degree sharp edges for easy removal of the residues on flat surfaces



Two ends with different widths for narrow and wide neck flasks.



MECHANICAL STIRRER - *"light duty"*

- Highly reliable design for stirring low to medium viscous media with a vibration free and silent operation.
- Maintenance free, silent and explotion proof DC motor offers a stirring volume up to 20 lt with a smooth start without sample overflow and a quick stop.
- Sturdy aluminium main body efficiently absorbs and emits the heat generated by the motor.
- Electronic speed control from 0 to 2200 rpm provides a gentle revolution and precise stirring speed even at high temperatures.
- Large LED panel for simultaneous display for set & actual speed.
- Overload safety feature automatically stops the operation and protects all mechanical and electronic components.
- Stirring shafts can be easily inserted to their position by "push through" system.
- Stirring shaft, stand and fixing clamp are not supplied as a standard accesory. These should be ordered separately.

catalogue number	615.01.001
dimensions / weight (mm / kg)	83 x 220 x 186 / 2,6
motor type	brushless DC motor
power (W)	70
voltage (V)	100 - 240
motor rating output (W)	50 / 60
frequency (Hz)	50 / 60
max. stirring capacity (L)	20
speed range (rpm)	0 - 2200
speed display	LED
speed display resolution (rpm)	± 1
max. torque (Ncm)	40
max. viscosity (mPas)	10000
overload protection	yes
motor protection	yes
chuck range diameter (mm)	0,5 - 10
permissible ambient temperature (°C)	5 - 40
permissible relative humidity (%)	80
optional accesories	stirrers & stand & bosshead

accesories for mechanical stirrer - "stand & bosshead"



Bosshead manufactured from steel with opening distance of 0 - 20 mm.

Sturdy construction specially enables holding heavy objects such as stirrers.
Catalogue No: 615.01.012

Stirrer stand is made from powder coated cast steel.

Unique base design offers very stable holding of the assembled stirrer and also possibility of getting close to the stand rod.

Supplied complete with 14 mm diameter stainless steel support rod.
Catalogue No: 049.09.250

MECHANICAL STIRRER - *"heavy duty"*

- Highly reliable design for stirring low to relatively viscous media with a vibration free and silent operation.
- Maintenance free, silent and explotion proof DC motor offers a stirring volume up to 40 lt with a smooth start without sample overflow and a quick stop.
- Sturdy aluminium main body efficiently absorbs and emits the heat generated by the motor.
- Electronic speed control with an accuracy +/- 3 rpm from 50 to 2200 rpm provides a gentle revolution and precise stirring speed even at high temperatures.
- Large LCD panel for simultaneous display for set & actual speed.
- Overload safety feature automatically stops the operation and protects all mechanical and electronic components.
- Stirring shafts can be easily inserted to their position by "push through" system.
- Stirring shaft, stand and fixing clamp are not supplied as a standard accessory. These should be ordered separately.



Large LCD display panel for indication of actual speed.



accesories for mechanical stirrer - "stirring shafts"



catalogue number	shaft type	shaft dia. & length	shaft material	recommended for
615.01.101	cross	9,0 x 400 mm	st. steel	medium & high speed
615.01.102	blade	6,8 x 400 mm	st. steel	low & medium speed
615.01.103	cross	8,5 x 350 mm	PTFE	medium & high speed
615.01.104	blade	6,8 x 350 mm	PTFE	low & medium speed

catalogue number	615.02.001
dimensions / weight (mm / kg)	83 x 220 x 186 / 2,8
motor type	brushless DC motor
power (W)	130
voltage (V)	100 - 240
motor rating output (W)	100
frequency (Hz)	50 / 60
max. stirring capacity (L)	40
speed range (rpm)	50 - 2200
speed display	LCD
speed display resolution (rpm)	± 1
max. torque (Ncm)	60
max. viscosity (mPas)	50000
overload protection	yes
motor protection	yes
chuck range diameter (mm)	0,5 - 10
permissible ambient temperature (°C)	5 - 40
permissible relative humidity (%)	80
optional accesories	stirrers & stand & bosshead

stirring & mixing & shaking & heating & cooling



VORTEX MIXER - *"LED display"*

- Offers touch and continuous orbital mixing for variety of applications. Provides efficient mixing with infinitely adjustable electronic speed control from 0 to 3000 rpm.
- Operation time can be set and controlled electronically between 1 second to 100 minutes. User friendly large LED displays enable easy setting and reading of speed and time.
- Guarantees perfect mixing of a 50 ml tube in 5 seconds with 6 mm diameter orbital movement.
- Unique counter-balance system creates maximum vortex power while minimizing the noice and excessive vibration.
- Aluminium cast base avoids unnecessary "walking" and slip resistant silicone feet pads minimize the vibration enabling an excellent stable operation by a tight hold to the work bench.
- Reliable and extremely quiet motor guarantees an even distributed efficient mixing for all speeds ranges.
- Head is easily removable and replaceable with optional adapters that offer multiple use with different tube diameters.
- Can be used both in cold rooms, incubators and anaerobic and aerobic chambers due to the small foot print and extremely compact design.

catalogue number	622.03.001
dimensions / weight (mm / kg)	110 x 145 x 160 / 3,0
power (W)	20
voltage (V)	220
frequency (Hz)	50 / 60
mixing motion	orbital
orbital diameter (mm)	5
speed range (rpm)	0 - 3000
speed & time display	LED
run time	continuous / touch operation
protection class	IP 21



VORTEX MIXER - *"advanced"*

- Offers touch and continuous orbital mixing for variety of applications.
- Provides efficient mixing with infinitely adjustable speed control from 0 to 3000 rpm.
- Guarantees perfect mixing of a 50 ml tube in 3 seconds with 6 mm diameter orbital movement.
- Unique counter-balance system creates maximum vortex power while minimizing the noice and excessive vibration.
- Aluminium cast base avoids unnecessary "walking" and slip resistant silicone feet pads minimize the vibration enabling an excellent stable operation by a tight hold to the work bench.
- Reliable and extremely quiet motor guarantees an even distributed efficient mixing for all speeds ranges.
- Head is easily removable and replaceable with optional adapters that offer multiple use with different tube diameters.
- Can be used both in cold rooms, incubators and anaerobic and aerobic chambers due to the small foot print and extremely compact design.

catalogue number	622.01.001
dimensions / weight (mm / kg)	127 x 130 x 160 / 3,0
power (W)	60
voltage (V)	220
frequency (Hz)	50 / 60
mixing motion	orbital
orbital diameter (mm)	4
speed range (rpm)	0 - 2500
speed & time display	scale
run time	continuous / touch operation
protection class	IP 21





VORTEX MIXER - *"basic"*

- Offers perfect orbital vortex mixing with a single touch.
- Provides efficient mixing with fixed speed of 3000 rpm.
- Guarantees perfect mixing of a 50 ml tube in 3 seconds with 5,5 mm diameter orbital movement.
- Unique counter-balance system creates maximum vortexing while minimizing the noise and excessive vibration.
- Aluminium cast base avoids unnecessary "walking" and slip resistant silicone feet pads minimize the vibration enabling an excellent stable operation by a tight hold to the work bench.
- Reliable and extremely quiet motor guarantees an even distributed efficient mixing.
- Can be used both in cold rooms, incubators and anaerobic and aerobic chambers due to the small foot print and extremely compact design.

catalogue number	622.02.001
dimensions / weight (mm / kg)	100 diameter x 78 / 0,55
power (W)	12
voltage (V)	100 - 240
frequency (Hz)	50 / 60
mixing motion	orbital
orbital diameter (mm)	5,5
speed range (rpm)	3000
run time	touch operation
protection class	IP 21

MIXER - *"microplate"*

- Offers continuous orbital mixing of microplates for variety of applications in life science.
- Maintenance free DC motor with low noise level enables a smooth start and quick stop.
- Infinitely adjustable speed control from 0 to 1500 rpm guarantees a gentle revolution and optimal mixing.
- Aluminium cast housing avoids the vibration enabling an excellent stable operation.
- Top plate is easily removable and replaceable with optional adapters that can hold different tube sizes.
- Can be used both in cold rooms, incubators and anaerobic and aerobic chambers due to the small foot print and extremely compact design.

catalogue number	613.11.001
dimensions / weight (mm / kg)	260 x 150 x 80 / 3,0
power (W)	20
voltage (V)	100 - 240
frequency (Hz)	50 / 60
shaking movement	orbital
orbital diameter (mm)	4,5
speed range (rpm)	0 - 1500 (single plate)
speed display	scale
run time	continuous operation
permissible ambient temperature (°C)	5 - 40
permissible relative humidity (%)	80
protection class	IP21
optional accesories	various attachments

ROTATOR - *"horizontal" - "LCD display"*



Rotator supplied without tube holders. Please select the suitable tube holder from options shown at the bottom of the page.

- Offers continuous or time controlled vertical rotational mixing for variety of applications such as general mixing, hybridization and hematology applications.
- Adjustable speed control from 10 to 70 rpm provides a regulated gentle revolution and precise stirring speed.
- Rotisserie type vertical rotor mixing angle is adjustable from 0 to 90 degree angle.
- Infinitely adjustable time control from 1 to 1199 minutes.
- Reliable and extremely quiet motor gurantees an even distributed efficient mixing for all speeds ranges.
- Large LCD panel provides simultaneous display for time & speed.
- Tube holders can easily removable and replaceable with optional holders that can hold different tube sizes.
- Rotator supplied without tube holders. Please select the suitable tube holder from options shown at the bottom of the page.

catalogue number	618.01.001
dimensions / weight (mm / kg)	220 x 510 x 260 / 8,0
motor type	DC motor
power (W)	40
voltage (V)	100 - 240
frequency (Hz)	50 / 60
speed range (rpm)	10 - 70
speed & temp. display	LCD
tilt angle (°)	0 - 90
time control range (min)	1 - 1199
run time	timer & continuous operation
permissible ambient temperature (°C)	5 - 40
permissible relative humidity (%)	80
protection class	IP21
optional accesories	various rotisseries



Tube holder for 1,5 ml centrifuge tubes.

catalogue number	tube size	tube quantity
618.01.101	1,5 ml	32 tubes



Tube holder for 15 ml centrifuge tubes.

catalogue number	tube size	tube quantity
618.01.102	15 ml	16 tubes



Tube holder for 50 ml centrifuge tubes.

catalogue number	tube size	tube quantity
618.01.103	50 ml	16 tubes

ROTATOR - *"horizontal & circular" - "without display"*



618.11.001 618.12.001

- Offers an economical solution for continuous horizontal mixing of biological samples.
- Compact and space saving design offers multiple advantages.
- Adjustable speed control from 0 to 80 rpm provides a regulated gentle revolution and precise stirring speed.
- Reliable and extremely quiet motor gurantees an even distributed efficient mixing for all speed ranges.
- Supplied complete with the rotisserie and tube attachments.

catalogue number	618.11.001	618.12.001
dimensions / weight (mm / kg)	150x530x190 / 1,7	300x220x310 / 2,0
motor type	DC motor	DC motor
power (W)	20	20
voltage (V)	100 - 240	100 - 240
frequency (Hz)	50 / 60	50 / 60
speed range (rpm)	0 - 80	0 - 80
tilt angle (°)	90	90
run time	continuous	continuous
protection class	IP21	IP21

TUBE ROTATOR - *"W/O display"*



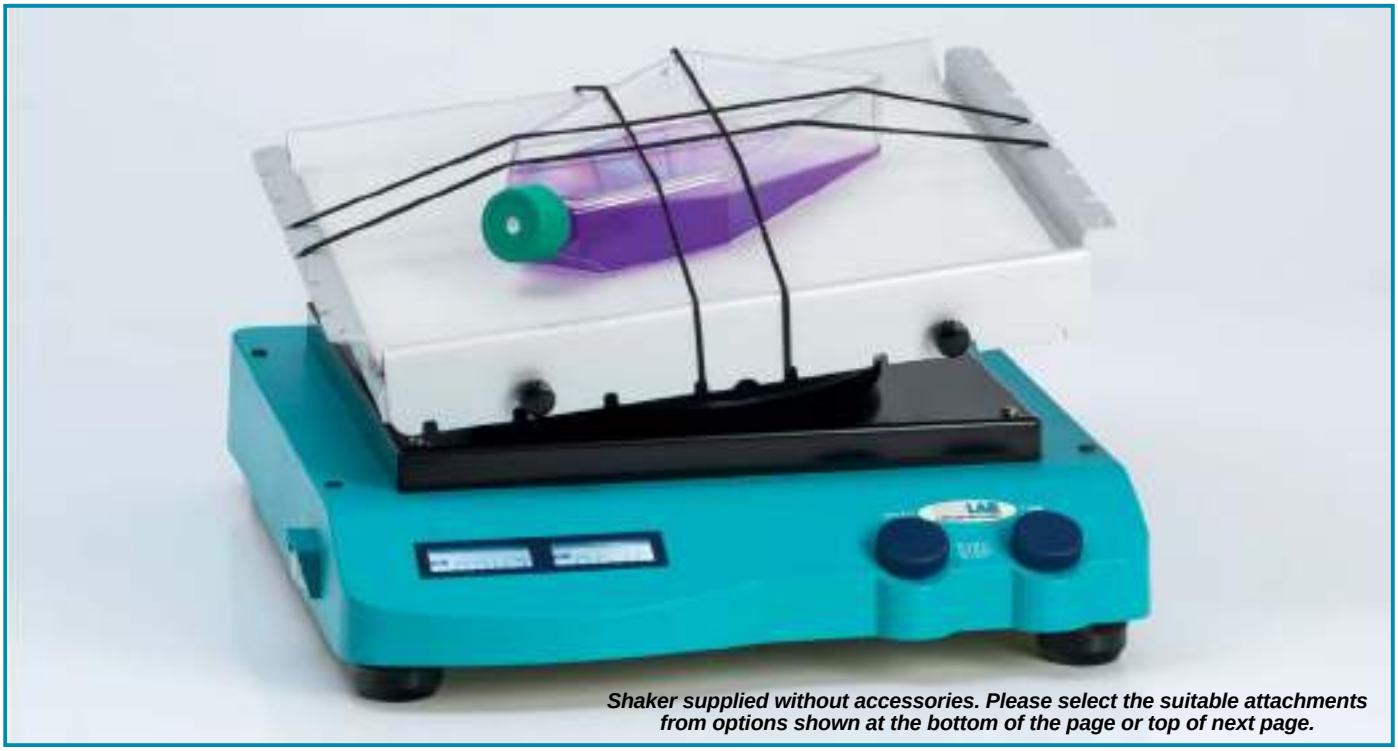


Siliconize rubber rollers ensure perfect holding of tube and guaranties effective rolling.

- Ideal for mixing blood samples, viscous samples, liquid/ solid suspentions with continuous operation.
- Provides a gentle but highly efficient rocking and rolling mixing up to 4 kg total weight.
- As the roller mechanism rotates through each complete revolution, the right side of each roller is gently elevated about 13 mm and return back to the original horizontal position. This gentle up/down motion provides a "wave effect" and guarantees a homogeneous mixing.
- Maintenance free brushless DC motor with low noise level enables a smooth start and quick stop.
- Infinitely adjustable speed control from 0 to 70 rpm provides a gentle revolution and optimal mixing.
- Can be used both in cold rooms, incubators and anaerobic and aerobic chambers due to the small foot print and extremely compact design.

catalogue number	operation mode	max. load	speed range	dimensions
620.01.001	continous	4 kg	0 - 70 rpm	450x260x120

SHAKER - "3D" - "orbital" - "LCD display"



Shaker supplied without accessories. Please select the suitable attachments from options shown at the bottom of the page or top of next page.

- Provides a continuous or time controlled 3 dimentional mixing up to 5 kg weight with a 7,9 degree fixed tilt angle.
- Maintenance free brushless DC motor with low noise level enables a smooth start and quick stop.
- Infinitely adjustable speed control from 0 to 70 rpm provides a gentle revolution and optimal mixing.
- Operation can be adjustable from 1 to 1199 minutes via a precise time control mechanism.
- Unique counter-balance system creates maximum shaking while minimizing the noise and excessive vibration.
- Large LCD panel provides simultaneous display for set & actual time and set & actual speed.
- Top plate is easily removable and replaceble with optional adapters and accesories.

catalogue number	619.01.001
dimensions / weight (mm / kg)	430 x 360 x 106 / 9,0
motor type	DC motor
power (W)	50
voltage (V)	100 - 240
frequency (Hz)	50 / 60
max. load capacity (kg)	5
rocking motion	3D orbital
speed range (rpm)	10 - 70
speed & time display	LCD
tilt angle (°)	7,9
time control range (min)	1 - 1199
run time	timer & continuous operation
permissible ambient temperature (°C)	5 - 40
permissible relative humidity (%)	80
protection class	IP21



Different size of adapters can be installed on the clip attachment for holding different volume flasks.
catalogue no: 619.01.104



Stainless steel fixing adapters for holding various flasks to be used with clip attachment plate.

catalogue number	flask volume
619.01.050	50 ml
619.01.100	100 ml
619.01.250	250 ml
619.01.500	500 ml

accesories for "3D" shaker



Universal attachment with 4 bars.
Catalogue No: 619.01.101



Dish platform with nonslip mat and fixed string.
Catalogue No: 619.01.103

SHAKER - "3D" - "orbital" - "without display"



- Provides a continuous or time controlled 3 dimensional mixing up to 3 kg weight with a 7 degree fixed tilt angle.
- Maintenance free brushless DC motor with low noise level enables a smooth start and quick stop.
- Infinitely adjustable speed control from 0 to 80 rpm provides a gentle revolution and optimal mixing.
- Unique counter-balance system creates maximum shaking while minimizing the noise and excessive vibration.
- Can be used both in cold rooms , incubators and anaerobic and aerobic chambers due to the small foot print and extremely compact design.

catalogue number	619.02.001
dimensions / weight (mm / kg)	330 x 270 x 130 / 2,7
motor type	DC motor
power (W)	20
voltage (V)	100 - 240
frequency (Hz)	50 / 60
max. load capacity (kg)	3
rocking motion	3D orbital
speed range (rpm)	0 -80
tilt angle (°)	7
run time	continuous operation
protection class	IP21



MUFFLE FURNACES

- Offers ideal conditions for ashing, heat treatment, preheating, melting and quality control.
- Integrated heater design and efficient insulation provides homogenous heat distribution and enable rapid heating up.
- Heating elements are protected by quartz tubes for higher life span.
- Chamber and door interior plated with refractory bricks of highest quality. Maximized insulation to ensure minimum energy consumption.
- Excellent insulation also eliminates heat transfer and gurantees risk free “safe touch” during and after run cycle.
- Heating parameters and other functions can be automatically controlled and observed by membrane keypad with digital LCD panel.
- Ergonomic and reliable PID control unit is conveniently placed above the body for better reach and inspection.
- Integrated PID control unit offers a user friendly menu and interface with 4-line wide screen display.
- Featured with evacuation chimney powered by a fan.
- Safety features such as sound warning in case of errors and step transitions and automatic cut off system in case of overheat.

catalogue number	606.01.005	606.01.007	606.01.010
external dimensions (mm)	430 x 600 x 610	530 x 580 x 600	550 x 620 x 610
furnace dimensions (mm)	150 x 230 x 150	200 x 230 x 160	250 x 230 x 180
furnace volume (L)	5	7	10
voltage (V)	220	220	220
frequency (Hz)	50	50	50
heating (kW)	2,0	2,5	2,8
temperature range (°C)	90 to 1100	90 to 1100	90 to 1100
temperature set accuracy (°C)	1	1	1
temperature uniformity (°C)	± 5	± 5	± 5
controller	PID multi functional, alarm, auto tunning		
internal material	refractory bricks		
external material	epoxy powder coated steel		
insulation	glass wool		
safety devices	over heat protection over current protection sound alert function		



Unique design for efficient heat distribution. Heating elements are rotected by quartz tubes for higher life span.



PID control unit offers many advantages

- *User friendly menu with 4 line wide display.*
- *2 programme memories and direct or 2 step heating programme*
- *Control option of heating rate 3 - 20°C / minute with +/- 1°C temperature accuracy.*
- *Digital total heating time counter and average working temperature indicator.*
- *Opportunity of keeping programmes in memory.*

WATER BATHS

- Water tank is manufactured from cavitation-proof, seamless and corrosion resistant stainless steel.
- Alarm and timer functions can be automatically controlled by membrane keypad with digital LED panel.
- Integrated heater design provides homogenous heat distribution rate and enables rapid heating up.
- Integrated PID temperature technology enables excellent heating control from ambient +5°C to 99°C with accuracy of +/- 0,1°C.
- Integrated overheat protection with alarm circuit automatically turns off heating in case of overheating.
- Automatic timer with audial and visual alarm functions enables selective operation as “continuous” mode or 99 minutes and 99 hours.
- Perforated bottom tray protects heating element and temperature sensor.
- Delivered complete with flat type stainless steel lid.





Seamless, robust cavitation-proof, stainless steel water tank. Perforated bottom tray protects heating element and temperature sensor. Baths are supplied with a stainless steel flat lid.

catalogue number	602.01.001	602.02.001
external dimensions (mm)	327 x 265 x 280	537 x 327 x 280
tank dimensions (mm)	300 x 240 x 150	500 x 295 x 150
tank volume (L)	11	22
heating output (W)	700	1400
heating range (°C)	ambient + 5 to 99	ambient + 5 to 99
heating control	PID technology	PID technology
heating accuracy (°C)	± 0,1	± 0,1
tank temp. uniformity	± 1	± 1
voltage (V)	220	220
frequency (Hz)	50 / 60	50 / 60
time & temp. display	LED	LED
time control	99 min. - 99 hour	99 min. - 99 hour
over heat protection	yes	yes
standard accesories	st. steel lid	st. steel lid



Membrane keypad with digital LED panel with timer, alarm and auto-tuning functions. Timer with delayed on/off function can be set selectively either to 99 min. 59 sec. or 99 hour 59 min.

WATER CONDITIONER

- Higly effective special softener for water baths.
- Extremely gentle on ware with almost neutral pH value.
- Fully water soluble, low-foaming, low phosphate content, non-combustible, no gas formation, non-aggressive, biodegradable.
- Recommended 2 ml added to each 1 lt exchanged water.

catalogue number	pack quantity
602.01.101	500 ml bottle



Recommended 5 ml added to 1 liter new changed fresh water.



DRYING OVENS

- Offers ideal conditions for drying, and sterilization for all laboratory applications.
- Integrated heater design provides homogenous heat distribution rate and enables rapid heating up.
- Gravity flow natural convection guarantees homogenious and smooth heating.
- Dust and turbulence free air recirculation provides ideal conditions specially for powders.
- Fully insulated chamber and door interior are manufactured from seamless stainless steel.
- Heating and timer, functions can be automatically controlled by membrane keypad with digital LED panel.
- Integrated PID temperature technology enables excellent heating control from ambient +10°C to 250°C with accuracy of +/- 1°C.
- Integrated overheat protection with alarm circuit automatically turns off heating in case of overheating.
- Automatic timer with audial and visual alarm functions enables selective operation as “continuous” mode or 99 minutes and 99 hours.
- Automatic circuit breakers ensure user safety in case of over temperature and over current problems.
- Delivered complete with adjustable sliding racks.

catalogue number	615.11.056	615.11.100
external dimensions (mm)	545 x 500 x 770	645 x 550 x 870
internal dimensions (mm)	400 x 350 x 400	500 x 400 x 500
working volume (L)	56	100
voltage (V)	220	220
frequency (Hz)	50	50
heating (kW)	1,5	2,0
temperature range (°C)	ambient + 15 to 250	ambient + 15 to 250
temperature set accuracy (°C)	± 1,0	± 1,0
temperature uniformity (°C)	± 2,0 at 120°C	± 2,0 at 120°C
convection	natural convection	
controller	PID multi functional, alarm, auto tunning	
timer	0 - 99 minute, 99 hour - continuous	
internal material	stainless steel	
external material	epoxy powder coated steel	
shelves	adjustable, 2 or 3 shelves	
insulation	glass wool	
safety devices	over heat protection over current protection leakage breaker	



One touch unique door closure system for easy closing.

Delivered complete with adjustable shelves.



INCUBATORS

- Offers ideal conditions for incubation, and sterilization for all laboratory applications.
- Air circulation by a silent motor forced convection guarantees more accurate and uniform temperature control.
- Tempered safety glass inner door enables easy sample viewing without chamber been affected by external factors.
- Integrated heater design provides homogenous heat distribution rate and enables rapid heating up.
- Fully insulated chamber and door interior are manufactured from seamless stainless steel.
- Heating and timer, functions can be automatically controlled by membrane keypad with digital LED panel.
- Integrated PID temperature technology enables excellent heating control from ambient +5°C to 70°C with accuracy of +/- 0,1°C.
- Integrated overheat protection with alarm circuit automatically turns off heating in case of overheating.
- Automatic timer with audial and visual alarm functions enables selective operation as “continuous” mode or 99 minutes and 99 hours.
- Automatic circuit breakers ensure user safety in case of over temperature and over current problems.
- Delivered complete with adjustable sliding racks.





Air circulation by a silent motor offers more accurate temperature control.

Safety glass inner door enables easy sample viewing.

catalogue number	609.01.056	609.01.100
external dimensions (mm)	520 x 470 x 680	580 x 540 x 975
internal dimensions (mm)	400 x 350 x 400	400 x 400 x 600
working volume (L)	56	100
voltage (V)	220	220
frequency (Hz)	50	50
heating (kW)	150	250
temperature range (°C)	ambient + 5 to 70	ambient + 5 to 70
temperature set accuracy (°C)	± 1,0	± 1,0
temperature uniformity (°C)	± 0,5 at 37°C	± 0,5 at 37°C
convection	forced convection, air circulation	
controller	PID multi functional, alarm, auto tunning	
timer	99 hour, 59 minute - continuous	
internal material	stainless steel	
external material	epoxy powder coated steel	
shelves	adjustable, 2 or 3 shelves	
door (internal - external)	tempered safety glass - silicone packing double door	
safety devices	over heat protection over current protection	

HEATING MANTLES - *"without stirrer"*



- Designed heating and boiling liquids in various size of round bottom flasks from 100 ml to 10.000 ml.
- Time proportional heater control with excellent repeatability enables a temperature operating range to 450°C.
- Heating element is made of highly flexible heat-resistant glass yarn which performs a maximum temperature of 900°C.
- Flexible heating element absorbs chocks, minimizing the risk of flask breakage and guarantees uniform heat distribution.
- Outer casting is manufactured from easy to clean powder coated steel.
- Glass fibre outer insulation with excellent ventilation slots keeps the outer casing cool at all times.
- Featured with non-skid rubber feet enabling perfect stability during operation.
- Control panel has separate indicator lamps for power and heat functions.



Heating element is made of highly flexible heat-resistant glass yarn which performs at maximum temperature of 900°C.



Control panel has separate indicator lamps for power and heat functions.

catalogue number	608.11.100	608.11.250	608.11.500	608.11.901	608.11.902	608.11.904	608.11.906	608.11.910
Voltage (V)	220							
Frequency (Hz)	50							
Power (W)	100	150	250	350	450	700	900	1200
Max. Heating (°C)	450							
Capacity (ml)	100	250	500	1000	2000	4000	6000	10000

HEATING MANTLES - *"with stirrer"*

- Designed to control both heating power and stirring speed independently.
- Time proportional heater control with excellent repeatability enables a temperature control to 450°C.
- Heating element is made of highly flexible heat-resistant glass yarn which performs a maximum temperature of 900°C.
- Flexible heating element absorbs chocks, minimizing the risk of flask breakage and guarantees uniform heat distribution.
- Provides a stirring speed up to 1.400 rpm with an integrated magnetic stirrer.
- For effective stirring, place the correct model and size of magnetic stirrer into the flask and increase the stirring speed slowly from minimum level.
- Outer casting is manufactured from easy to clean powder coated steel.
- Glass fibre outer insulation with excellent ventilation slots keeps the outer casing cool at all times.
- Featured with non-skid rubber feet enabling perfect stability during operation.
- Control panel has separate indicator lamps for heating and stirring functions.





Provides a stirring speed up to 1.400 rpm with an integrated magnetic stirrer.

For effective stirring, place the correct model and size of magnetic stirrer into the flask and increase the stirring speed slowly from minimum level.



Control panel has separate indicator lamps for heating and stirring functions.

catalogue number	608.12.100	608.12.250	608.12.500	608.12.901	608.12.902	608.12.904
voltage (V)	220					
frequency (Hz)	50					
power (W)	100	150	250	350	450	700
max. heating (°C)	450					
capacity (ml)	100	250	500	1000	2000	4000
stirring (rpm)	0 - 1400					

stirring & mixing & shaking & heating & cooling





HEATING MANTLES
"with stirrer" - "with precise temperature control"

- Designed to control both heating power and stirring speed independently.
- Time proportional heater control with excellent repeatability enables a temperature control to 450°C.
- Heating element is made of highly flexible heat-resistant glass yarn which performs a maximum temperature of 900°C.
- Flexible heating element absorbs chocks, minimizing the risk of flask breakage and guarantees uniform heat distribution.
- Provides a stirring speed up to 1.400 rpm with an integrated magnetic stirrer.
- For effective stirring, place the correct model and size of magnetic stirrer into the flask and increase the stirring speed slowly from minimum level.
- Outer casting is manufactured from easy to clean powder coated steel.
- Glass fibre outer insulation with excellent ventilation slots keeps the outer casing cool at all times.
- Featured with non-skid rubber feet enabling perfect stability during operation.
- Control panel has separate indicator lamps for heating and stirring functions.

catalogue no	608.13.100	608.13.250	608.13.500	608.13.901	608.13.902
voltage (V)	220				
frequency (Hz)	50 / 60				
power (W)	100	150	250	350	450
max. heating (°C)	450				
capacity (ml)	100	250	500	1000	2000
stirring (rpm)	0 - 1400				

HEATING MANTLES
"without stirrer" - "multi row"

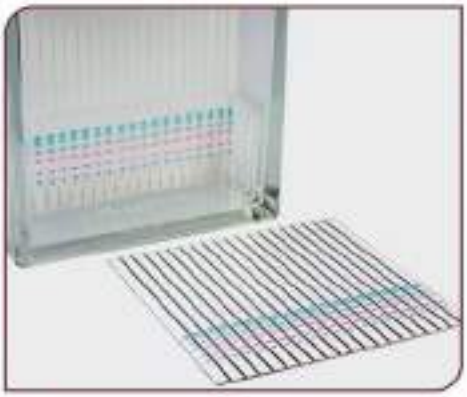
- Offers practical and economical solutions where more than one mantle is required.
- Designed heating and boiling liquids in various size of round bottom flasks from 250 ml to 1.000 ml.
- Time proportional heater control for each compartment with excellent repeatability enables a temperature operating range to 450°C.
- Heating element is made of highly flexible heat-resistant glass yarn which performs a maximum temperature of 900°C.
- Flexible heating element absorbs chocks, minimizing the risk of flask breakage and guarantees uniform heat distribution.
- Glass fibre outer insulation with excellent ventilation slots keeps the outer casting cool at all times.
- Featured with non-skid rubber feet enabling perfect stability during operation.
- Control panel has separate indicator lamps for power and heat functions.

catalogue no	capacity	row number	power
608.14.250	250 ml	4 row	4 x 150 W
608.14.500	500 ml	4 row	4 x 250 W
608.14.901	1000 ml	4 row	4 x 350 W
608.16.250	250 ml	6 row	4 x 150 W
608.16.500	500 ml	6 row	4 x 250 W
608.16.901	1000 ml	6 row	4 x 350 W

catalogue no	product description
608.14.101	support and clamp set for 4 row mantles
608.16.102	support and clamp set for 6 row mantles

ISOLAB Laborgeräte GmbH

DIN EN ISO CERTIFIED 9001





chromatography & spectroscopy















SYRINGE FILTERS - *"non-sterile"*

- Specially designed for HPLC sample preperations with the best quality tear proven membranes. Fully autoclavable.
- Since the housing is ultrasonically sealed they offer excellent pressure stability.
- Sample distribution rings of the body direct samples for uniform filtration with a guarantee of high flow rate and filtration speed on both directions restricting the liquid overload.
- Unique female luer-lock secures connections with syringes. Body design enables to be used with all robotic machines.
- Membrane type and porosity printed on each filter. Different colour coded sealing rings enable easy differentiation of the membrane type.
- **Available 2 filters:**
  - **Syringe filters with 0,45 µm pore size**
  - **Syringe filters with 0,22 µm pore size**

ISOLAB 0,45 um filters	Macherey - Nagel 0,45 um filters	filter membrane material	code name	pore size	diameter	pack quantity
094.01.001	094.02.001	regenerated cellulose	RC	0.45	25 mm	100 pieces
094.01.002	094.02.002	polytetrafluoroethylene	PTFE	0.45	25 mm	100 pieces
094.01.003	094.02.003	polyvinylidenedifluoride	PVDF	0.45	25 mm	100 pieces
094.01.004	094.02.004	polyester	PET	0.45	25 mm	100 pieces
094.01.005	094.02.005	cellulosemixedesters	MV	0.45	25 mm	100 pieces
094.01.006	094.02.006	cellulose acetate	CA	0.45	25 mm	100 pieces
094.01.007	094.02.007	nylon / polyamide	PA	0.45	25 mm	100 pieces
094.01.008	094.02.008	polyethersulfone	PES	0.45	25 mm	100 pieces

ISOLAB 0,22 um filters	Macherey - Nagel 0,22 um filters	filter membrane material	code name	pore size	diameter	pack quantity
094.03.001	094.04.001	regenerated cellulose	RC	0.22	25 mm	100 pieces
094.03.002	094.04.002	polytetrafluoroethylene	PTFE	0.22	25 mm	100 pieces
094.03.003	094.04.003	polyvinylidenedifluoride	PVDF	0.22	25 mm	100 pieces
094.03.004	094.04.004	polyester	PET	0.22	25 mm	100 pieces
094.03.005	094.04.005	cellulosemixedesters	MV	0.22	25 mm	100 pieces
094.03.006	094.04.006	cellulose acetate	CA	0.22	25 mm	100 pieces
094.03.007	094.04.007	nylon / polyamide	PA	0.22	25 mm	100 pieces
094.03.008	094.04.008	polyethersulfone	PES	0.22	25 mm	100 pieces

MV = *cellulose mixed esters,* ***CA =*** *cellulose acetate,* ***RC =*** *regenerated cellulose,* ***PA =*** *polyamide,* ***PTFE =*** *polytetrafluoroethylene,* ***PVDF =*** *polyvinylidene difluoride,* ***PES =*** *polyethersulfone,* ***PET =*** *polyester*

PVDF: Hydrophilic membrane
For polar solutions, water-soluble oligomers and polymers like proteins, binding capacity for proteins 20 µg per 25 mm filter.

PES: Hydrophilic membrane
For aqueous and slightly organic liquids with higher flow rates, very low adsorption for pharmaceuticals and proteins, good stability against acids and bases.

PA: Rather hydrophilic membrane
For aqueous and organic/ aqueous medium polar liquids.

PTFE: hydrophobic membrane
For nonpolar liquids and gases which are resistant to all kinds of solvents flushing with alcohol, followed by water, makes the membrane more hydrophilic.

CA: Hydrophilic membrane
For filtration of water-soluble oligomers and polymers, especially suited for biological macromolecules, extremely low binding capacity for proteins 21 µg per 25 mm filter.

MV: Hydrophilic membrane with very low adsorption
For aqueous or polar solutions.

RC: Hydrophilic membrane with very low adsorption
For aqueous and organic / aqueous liquids i.e. polar and medium polar sample solutions.
Binding capacity for proteins 84 µg per 25 mm filter.

PET: Hydrophilic multipurpose membrane
For polar as well as nonpolar solvents, not cytotoxic, does not block the growth of microorganisms and higher cells.

SYRINGE FILTERS - *"sterile"*



- Specially designed for HPLC sample preperations with the best quality tear proven membranes. Fully autoclavable.
- Since the housing is ultrasonically sealed they offer excellent pressure stability.
- Sample distribution rings of the body direct samples for uniform filtration with a guarantee of high flow rate and filtration speed on both directions restricting the liquid overload.
- Unique female luer-lock secures connections with syringes. Body design enables to be used with all robotic machines.
- Membrane type and porosity printed on each filter. Different colour coded sealing rings enable easy differentiation of the membrane type.
- **Available 2 filters:**
  - **Syringe filters with 0,45 µm pore size**
  - **Syringe filters with 0,22 µm pore size**

ISOLAB 0,45 um filters	Macherey - Nagel 0,45 um filters	filter membrane material	code name	pore size	diameter	pack quantity
094.05.001	094.06.001	regenerated cellulose	RC	0.45	25 mm	50 pieces
094.05.002	094.06.002	polytetrafluoroethylene	PTFE	0.45	25 mm	50 pieces
094.05.003	094.06.003	polyvinylidenedifluoride	PVDF	0.45	25 mm	50 pieces
094.05.004	094.06.004	polyester	PET	0.45	25 mm	50 pieces
094.05.005	094.06.005	cellulosemixedesters	MV	0.45	25 mm	50 pieces
094.05.006	094.06.006	cellulose acetate	CA	0.45	25 mm	50 pieces
094.05.007	094.06.007	nylon / polyamide	PA	0.45	25 mm	50 pieces
094.05.008	094.06.008	polyethersulfone	PES	0.45	25 mm	50 pieces

ISOLAB 0,22 um filters	Macherey - Nagel 0,22 um filters	filter membrane material	code name	pore size	diameter	pack quantity
094.07.001	094.08.001	regenerated cellulose	RC	0.22	25 mm	50 pieces
094.07.002	094.08.002	polytetrafluoroethylene	PTFE	0.22	25 mm	50 pieces
094.07.003	094.08.003	polyvinylidenedifluoride	PVDF	0.22	25 mm	50 pieces
094.07.004	094.08.004	polyester	PET	0.22	25 mm	50 pieces
094.07.005	094.08.005	cellulosemixedesters	MV	0.22	25 mm	50 pieces
094.07.006	094.08.006	cellulose acetate	CA	0.22	25 mm	50 pieces
094.07.007	094.08.007	nylon / polyamide	PA	0.22	25 mm	50 pieces
094.07.008	094.08.008	polyethersulfone	PES	0.22	25 mm	50 pieces

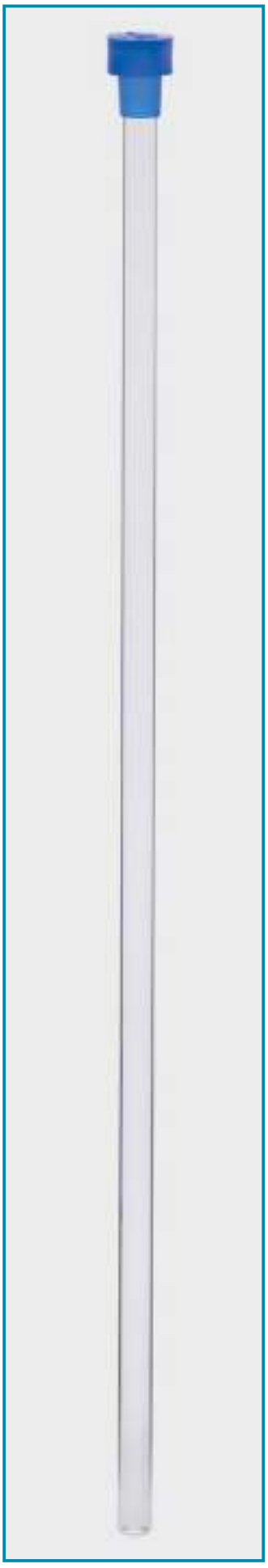
SYRINGES - *"sterile" - "single use"*



- 2 pieces syringes are suitable for HPLC applications. Sterile, pyrogen-free and for single use, latex and silicone oil free.
- Consists of very clear, highly transparent and absolutely leak-tight polypropylene barrel and polyethylene piston.
- Smooth piston movement offers reduced sliding force.
- Defined safety stop to avoid accidental pull-out of plunger and loss of sample.
- Design of the finger grip flanges ensure stability and comfort during injection.

Other technical specifications can be seen at catalogue page no 281.

NMR TUBES



- Manufactured from borosilicate 3.3 glass with precise tolerances for consistent high accuracy.
- Applicable until 600 MHz.
- Fire polished rims avoid accidental breakage risks during use.
- Due to their close tolerances accuracy they are most suitable for high-throughput NMR systems.
- Their straightness all over the tube length, their precise wall thickness and perfect wall thickness distribution guarantee accurate and quick test results.
- Sold without caps. Please order the caps separately.



catalogue number	external diameter	internal diameter	wall thickness	length	pack quantity
072.01.001	4,95 ± 0,05	4,19 ± 0,05	0,38 mm	178 mm	100 pieces
072.01.002	4,95 ± 0,05	4,19 ± 0,05	0,38 mm	203 mm	100 pieces

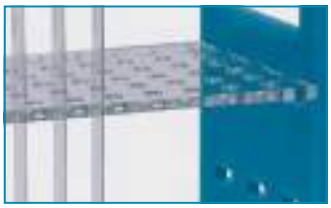
NMR TUBES CAP

- Manufactured from EVA with a perfect fit to 5 mm NMR tubes.
- Large ridges with increased grip.
- Cap inner design ensures hermetical and leak-proof closure.
- Color coded caps enable fast, easy and practical identification of tubecontent.

catalogue number	cap color	pack quantity
072.01.003	red	100 pieces
072.01.004	green	100 pieces
072.01.005	yellow	100 pieces
072.01.006	blue	100 pieces

NMR TUBE STAND

- Manufactured from acrylic for holding 72 NMR tubes in 12 x 6 array.
- Handles at both sides guarantee easy hold and secure grib.
- Adjustable height upper layer provides multi-use options with shorter objects.
- Overall dimensions are: 110x210x220 mm.



Adjustable height upper layer provides multi-use options.

catalogue number	pack quantity
059.05.001	1 piece

MEMBRANE FILTERS



➤ Membrane filtration offer a very convenient, fast and economical separation method.

They offer below mentioned advantages;

- ✓ Excellent level of particle retention
- ✓ Large load carry capacity
- ✓ High permeability to air
- ✓ Non-hygroscopic and biologically inert
- ✓ Chemical resistance to most solvents and reagents.
- ✓ Very high temperature resistance

➤ **Available 2 filters:**
- ➤ **filters with 0,45 µm pore size**
- ➤ **filters with 0,20 µm pore size**

CM: cellulose mixed ester membrane
Particularly suitable for aqueous solutions. They are hydrophilic. Thermally stable to 121°C. Ideal for gravimetric analysis and are often used for contamination tests.

NC: nitrocellulose membranes
They are easily wettable and suited for filtration of aqueous solutions. In dry atmosphere these membranes are thermally stable at 125°C and can be autoclaved at 121°C.

RC: regenerated cellulose membranes
These membranes are resistant to most organic solvents. They are mostly used for filtration of solvent mixtures and ultra-purification and degassing of HPLC eluents.

TE: polytetrafluoroethylene membranes
Particularly suitable with aggressive media, as well as to concentrated acids and bases. They are hydrophobic, they can be used up to 145°C.

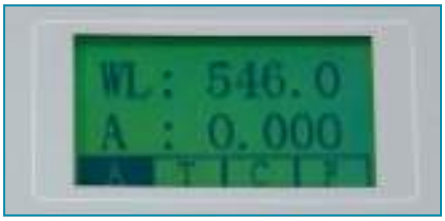
PE: polyester membranes
They are hydrophilic. Particularly suitable for fine titration, dust analysis, aerosol analysis and ultra-purification of solvents.

CA: cellulose acetate membranes
They have a low protein binding capacity and they are suited for aqueous and alcoholic media. They are hydrophobic and can be used for hot gases up to 180°C.

catalogue number	membrane material	code name	pore size	diameter	pack quantity
104.01.001	cellulose mixed ester	CM	0,20 µm	47 mm	100 pieces
104.01.002	cellulose mixed ester	CM	0,45 µm	47 mm	100 pieces
104.01.003	nitrocellulose	NC	0,20 µm	47 mm	100 pieces
104.01.004	nitrocellulose	NC	0,45 µm	47 mm	100 pieces
104.01.005	regenerated cellulose	RC	0,20 µm	47 mm	100 pieces
104.01.006	regenerated cellulose	RC	0,45 µm	47 mm	100 pieces
104.01.007	polytetrafluoroethylene	TE	0,20 µm	47 mm	100 pieces
104.01.008	polytetrafluoroethylene	TE	0,45 µm	47 mm	100 pieces
104.01.009	polyester	PE	0,20 µm	47 mm	100 pieces
104.01.010	polyester	PE	0,45 µm	47 mm	100 pieces
104.01.011	cellulose acetate	CA	0,20 µm	47 mm	100 pieces
104.01.012	cellulose acetate	CA	0,45 µm	47 mm	100 pieces

SPECTROPHOTOMETERS - *"VIS & UV / VIS"*

- Economical VIS spectrophotometers are featured with a large and user friendly control panel with LCD screens.
- They are ideal for routine applications at general laboratories.
- Offers practical wavelength calibration and wavelength setting.
- Supplied with instruction manuel and 2 x 10 mm quartz cuvettes.

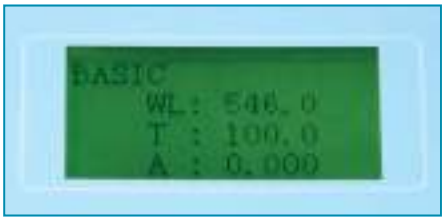


619.11.001

NEW



- Economical priced UV/VIS spectrophotometers are featured with a large and user friendly control panel with LCD screens.
- They are ideal for routine applications at general laboratories.
- Offers practical wavelength calibration and wavelength setting.
- Supplied with instruction manuel and 2 x 10 mm quartz cuvettes.



619.11.002

NEW



catalogue number	619.11.001	619.11.002
optical system	single beam, grating 1200 lines/mm	
wavelength range	325~1000 nm	200~1020 nm
spectral bandwidth	4 nm	
wavelength accuracy	±1.8nm	
wavelength repeatability	<0.5nm	
photometric accuracy	±0.002A (0~0.5Abs), ±0.004A (0.5~1.0Abs), ±0.5% T (0~%100 T)	
photometric repeatability	0.001Abs (0~0.5Abs), 0.002Abs (0.5~1.0Abs), <0.2% T (0~100% T)	
stray light	0.1% T @ 360nm; 220nm	0.2% T @ 360nm
stability	±0.001A/h @ 500nm	
noise	±0.001A	
display	128*64 Dots LCD	
photometric mode	T, A, C, E	
photometric range	0~200% T, -0.301~3.0A	
detector	silicone photodiode	
light source	deuterium lamp, tungsten lamp	
input	membrane keypad	
standard accesseries	10 mm glass cuvette*4 units	10 mm glass cuvette*4 units 10 mm quarz cuvette*2 units
power supply	110/220V±10%, 60/50Hz	
packing size (WxDxH) mm	560 x 430 x 320	560 x 430 x 320
gross weight (kg)vvvvv	11.5	12

UV / VIS SPECTROPHOTOMETER



- This advanced UV/VIS spectrophotometer is featured with a large and user friendly control panel with LCD screen.
- Ideal for advanced applications at general laboratories.
- Offers automatical wavelength calibration and wavelength setting.
- Supplied with instruction manuel and 4 x 10 mm glass and 2 x 10 mm quartz cuvettes.





catalogue number	619.11.003
optical system	single beam, grating 1200 lines/mm
wavelength range	190~1100 nm
spectral bandwidth	2 nm
wavelength accuracy	±0.5nm
wavelength repeatability	<0.2nm
photometric accuracy	±0.002A (0~0.5Abs), ±0.004A (0.5~1.0Abs), ±0.5% T (0~%100 T)
photometric repeatability	0.001Abs (0~0.5Abs), 0.002Abs (0.5~1.0Abs), <0.2% T (0~100% T)
stray light	0.04% T @ 360nm; 220nm
stability	±0.001A/h @ 500nm
baseline flatness	±0.002A
noise	0.0005Abs @ 500nm
display	480*272 65 thousand true color TFT LCD
photometric mode	T, A, C, E
photometric range	0~200% T, -0.301~3.0A
detector	silicone photodiode
light source	deuterium lamp, tungsten lamp
input	membrane keypad
output	USB print and data output, connect PC
standard accesseries	10 mm glass cuvette*4 units / 10 mm quarz cuvette*2 units
power supply	110/220V±10%, 60/50Hz
packing size (WxDxH) mm	620 x 500 x 370
gross weight (kg)	18



CUVETTES - "polystyrene" - "12,5 x 12,5 x 45 mm"

- Manufactured from glass-clear polystyrene with 12,5 x 12,5 x 45 mm overall dimensions as single use.
- Can be both used for chemistry and life science applications.
- Wavelength operating range from 340 to 900 nm. Offers a light path of 10 mm with clear and clean optical path length.
- Optimised shape and narrow wall thickness provide increased heat transfer resulting in more constant sample temperatures during measurements.
- Groupped by mould cavity and packed in same box to ensure lowest variation of absorbtion coefficient.
- Eliminates cross contamination risk associated with washing and re-using such as glass cuvettes.
- **Available 2 cuvettes:**
  - **Macro cuvettes**
  - **Semi-micro cuvettes**
- Supplied as 100 cuvettes packed in a styrofoam box with a cover.

catalogue number	cuvette type	product descriptions	material	wavelength range	light path	volume	internal width	pack quantity
098.02.002	macro	with clear wall & without cap	polystyrene	340 - 900 nm	10 mm	2,5-4,5 ml	10 mm	100 pieces
098.02.001	semi-micro	with clear wall & without cap	polystyrene	340 - 900 nm	10 mm	1,5-3,0 ml	4 mm	100 pieces



CUVETTES - "glass" - "12,5 x 12,5 x 45 mm"

- Manufactured from polished quartz glass or polished optical glass with 12,5 x 12,5 x 45 mm dimensions as multi-use.
- They offer clear and clean optical path length and fit to all standard spectrophotometer cuvette holders.
- Can be both used for chemistry and life science applications.
- Quartz cuvettes provide wavelength operating range from 190 to 2.500 nm.
- Optical glass cuvettes provide wavelength operating range from 340 to 2.500 nm.
- Optimised shape, precise dimensions with tolerance less than 0,1 % mm and excellent wall thickness provide accurate resulting during measurements.
- **Available 3 cuvettes:**
  - **Macro cuvettes**
  - **Semi-micro cuvettes**
  - **Micro cuvettes**
- Supplied as 2 cuvettes packed in a polystyrene box for protection from dust and other enviromental effects.

catalogue number	cuvette type	product descriptions	material	wavelength range	light path	volume	internal width	pack quantity
098.01.001	macro	with clear wall & PTFE cap	ES Quartz	190 - 2500 nm	10 mm	3,50 ml	10 mm	2 pieces
098.01.002	semi-micro	with frosted wall & PTFE cap	ES Quartz	190 - 2500 nm	10 mm	1,40 ml	4 mm	2 pieces
098.01.003	micro	with frosted wall & PTFE cap	ES Quartz	190 - 2500 nm	10 mm	0,70 ml	2 mm	2 pieces
098.01.004	macro	with clear wall & PTFE cap	optical glass	340 - 2500 nm	10 mm	3,50 ml	10 mm	2 pieces
098.01.005	semi-micro	with frosted wall & PTFE cap	optical glass	340 - 2500 nm	10 mm	1,40 ml	4 mm	2 pieces
098.01.006	micro	with frosted wall & PTFE cap	optical glass	340 - 2500 nm	10 mm	0,70 ml	2 mm	2 pieces

CUVETTES - "glass" - "12,5 x 52,5 x 45 mm"



- Manufactured from polished quartz glass or polished optical glass with 12,5 x 52,5 x 45 mm dimensions as multi-use for chemistry and life science applications.
- They offer clear and clean optical path length and fit to all standard spectrophotometer cuvette holders.
- Quartz cuvettes provide wavelength operating range from 190 to 2.500 nm.
- Optical glass cuvettes provide wavelength operating range from 340 to 2.500 nm.
- Optimised shape, precise dimensions with tolerance less than 0,1 % mm and excellent wall thickness provide accurate resulting during measurements.
- **Available 3 cuvettes:**
  - **Macro cuvettes**
  - **Semi-micro cuvettes**
  - **Micro cuvettes**
- Supplied as 2 cuvettes packed in a polystyrene box for protection from dust and other enviromental effects.

catalogue number	cuvette type	product descriptions	material	wavelength range	light path	volume	internal width	pack quantity
098.01.007	macro	with clear wall & PTFE cap	ES Quartz	190 - 2500 nm	50 mm	17,5 ml	10 mm	1 piece
098.01.008	semi-micro	with frosted wall & PTFE cap	ES Quartz	190 - 2500 nm	50 mm	7,00 ml	4 mm	2 pieces
098.01.009	micro	with frosted wall & PTFE cap	ES Quartz	190 - 2500 nm	50 mm	3,50 ml	2 mm	2 pieces
098.01.010	macro	with clear wall & PTFE cap	optical glass	340 - 2500 nm	50 mm	17,5 ml	10 mm	1 piece
098.01.011	semi-micro	with frosted wall & PTFE cap	optical glass	340 - 2500 nm	50 mm	7,00 ml	4 mm	2 pieces
098.01.012	micro	with frosted wall & PTFE cap	optical glass	340 - 2500 nm	50 mm	3,50 ml	2 mm	2 pieces

BOX - "for cuvettes"





Different color options offer visual sorting and organising of different cuvettes.

- Manufactured from polypropylene with 120x112x60 mm dimensions for safe handling and holding 12 cuvettes with 10 mm width.
- Hinged lid secures clasps and offers convenient use of the box. Removable cuvette insert helps easy cleaning.
- The inside height designed to accomodate all cuvettes.

catalogue number	box color	pack quantity
098.03.001B	blue	1 piece
098.03.001P	purple	1 piece
098.03.001R	ruby	1 piece

RACK - "for cuvettes"



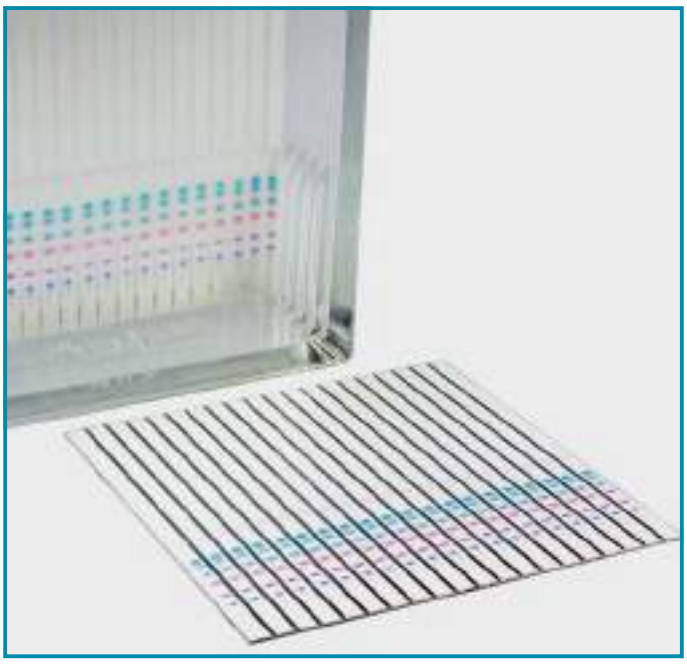






- Manufactured from polypropylene with 210x70x35 mm dimensions for safe handling and holding 16 cuvettes with 10 mm width.
- Alphanumerical index on cuvette rows enables easy identification of tube positions.
- 2 tier body form offers clear visibility option from horizontal direction.

catalogue number	box color	pack quantity
098.03.002B	blue	1 piece
098.03.002P	purple	1 piece
098.03.002R	ruby	1 piece



THIN LAYER CHROMATOGRAPHY

➤ Thin Layer Chromatography (TLC), like all chromatographic techniques, based on multi-stage distribution process involving;

✓ ***Suitable absorbants (as stationary phase) coated as a thin layer onto a suitable support such as glass, aluminium or polyester sheet.***

✓ ***Solvents or solvent mixtures as the mobile phase.***

✓ ***Sample molecules***

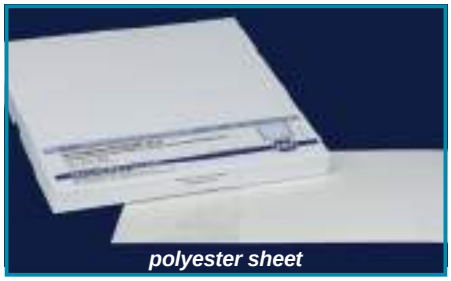
➤ Although the TLC principle is known more than 100 years, today TLC has gained increasing importance.

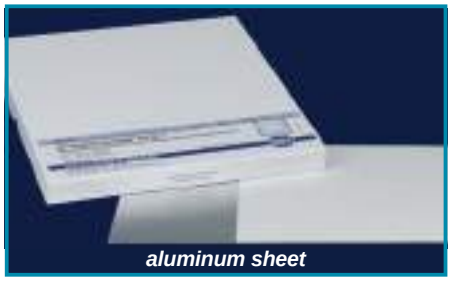
➤ Applicability of TLC was enhanced by development of new absorbants and supports.

➤ The basic steps of TLC are the following;

✓ ***Sample preparation.*** ✓ ***Sample application.*** ✓ ***Development of chromatogram.*** ✓ ***Evaluation in TLC***


glass sheet


polyester sheet


aluminum sheet

SIL G - *"unmodified standard silica layers"*

➤ Silica 60, specific surface (BET) - 500 m2/g, mean pore size 60A, specific pore volume 0,75 ml/g, particle size 5 - 17 µm:standard grade.

➤ Thickness of layer for analytical plates 0,25 mm. For preparative plates 0,5 and 1,0 mm. For 2,0 mm preparative layers a slightly closer material is used.

➤ Indicators: manganese activated zinc silicate with green fluorescence for short-wave UV (254 nm); special inorganic fluorescent pigment with blue fluorescence for long-wave UV (366 nm).

➤ Binders: highly polimeric products, which are stable in almost all organic solvents and resistant towards aggressive visualisation reagents.

ALUGRAM - *"Xtra" - "SIL G"*

➤ Silica 60, specific surface (BET) - 500 m2/g, mean pore size 60A, specific pore volume 0,75 ml/g, particle size 5 - 17 µm standard grade.

Offers outstanding advatages as;

✓ ***Outstanding wettebility for precise colorization results, even with 100 % aqueous detection reagents.***

✓ ***Best separation efficiency and reproducibility for each lot.***

✓ ***Easy and reliable cutting due to an optimized binder system without flaking of silica.***

➤ Binders: highly polimeric products, which are stable in almost all organic solvents and resistant towards aggressive visualisation reagents, also completely stable in purely aqueous eluents.

catalogue number	product descriptions	material	dimensions	thickness of layer	pack quantity
108.01.001	TLC precoated plates SIL G-25	glass sheet	20 x 20 cm	0,25 mm	25 pieces
108.01.002	TLC precoated plates SIL G-25 / UV 254	glass sheet	20 x 20 cm	0,25 mm	25 pieces
108.01.003	TLC precoated plates SIL G-25 / UV 254 + 366	glass sheet	20 x 20 cm	0,25 mm	25 pieces
108.01.004	TLC precoated plates SIL G-50	glass sheet	20 x 20 cm	0,50 mm	20 pieces
108.01.005	TLC precoated plates SIL G-50 / UV 254	glass sheet	20 x 20 cm	0,50 mm	20 pieces
108.01.006	TLC precoated plates SIL G-100	glass sheet	20 x 20 cm	1,00 mm	15 pieces
108.01.007	TLC precoated plates SIL G-100 / UV 254	glass sheet	20 x 20 cm	1,00 mm	15 pieces
108.01.008	TLC precoated plates SIL G-200	glass sheet	20 x 20 cm	2,00 mm	12 pieces
108.01.009	TLC precoated plates SIL G-200 / UV 254	glass sheet	20 x 20 cm	2,00 mm	12 pieces
108.01.010	POLYGRAM sheets SIL G	polyester sheet	20 x 20 cm	0,20 mm	25 pieces
108.01.011	POLYGRAM sheets SIL G / UV 254	polyester sheet	20 x 20 cm	0,20 mm	25 pieces
108.01.012	ALUGRAM sheets SIL G	aluminium sheet	20 x 20 cm	0,20 mm	25 pieces
108.01.013	ALUGRAM sheets SIL G / UV 254	aluminium sheet	20 x 20 cm	0,20 mm	25 pieces
108.01.014	ALUGRAM "Xtra" sheets SIL G	aluminium sheet	20 x 20 cm	0,20 mm	25 pieces
108.01.015	ALUGRAM" Xtra"sheets SIL G / UV 254	aluminium sheet	20 x 20 cm	0,20 mm	25 pieces

TLC SEPARATION TANK



- Rectangular shaped TLC developing tanks are used to develop 20x20 cm TLC plates.
- TLC developing tanks are used to run up to 5 TLC plates for separation. It is important to maintain saturated conditions during the analysis which can be achieved by using small tanks, filter paper liners and sufficient solvents.
- The tank can be equilibrated for 30 minutes prior to running the plate to yield good result.
- TLC Developing tank supplied to gather with the lid.

catalogue number	pack quantity
108.01.016	1 piece

TLC SPRAY KIT



- Offers an economical solution for TLC spraying. Provides a fine uniform spray ideally adjusted for TLC practices.
- Supplied complete with 100 ml erlenmeyer with sprayer head and a rubber pressure bellow.

catalogue number	pack quantity
108.02.002	1 piece

TLC SPRAYER - *"with gas canister"*

- TLC sprayer provide a fine, uniform spray all over the TLC plate surfaces for optimization of TLC plates.
- With it's unique design offer easy-to-use and easy-to-clean options.
- Based on a simple technology where the aeresol canister is situated above the reservoir bottle.
- A small press of the lever highly pressuries the lower glass reservoir bottle releasing a fine mist of spray.
- Propellant mixture is eco-friendly and does not harms the nature.
- Guarantees homogenous distribution, even coverage and minimum reagent consumption.
- Gas canister serves as handle. Cap fits to all 38 - 40 thread reagent bottles.

catalogue number	pack quantity
108.02.001	1 piece





Filling: *Pour the TLC reagent into the bottle. Never fill above the shoulder line.*



Mounting: *Attach TLC sprayer to the bottle by turning anti-clockwise. Never shake the sprayer during mounting.*



Spraying: *Start spraying with the sprayer and release the button while the sprayer is still moving at the end of the TLC plate to avoid reagent loss. For best performance a spraying angle between 90° and 45° is required.*

Also always hold the sprayer at a distance between 15 cm to 30 cm from TLC plate surface.



"A" type needles are designed for optimum penetration with 17° bevel. Also minimizes the necessary piercing force and diameter of injection channel.



"B" type needles has a 90° bevel for precise pipetting. This design relases drops completely, for maximum repreducibility. Ideal for HPLC sample injection.



"C" type needles are designed for autosamplers. The tapered tip and the 90° square end eliminate burns. Ideal for PTFE laminated seals and regular septas.



"D" type needles are featured with a side opening for dispensing and filling. This design avoids plugging and minimizes septum damage. Ideal for thicker septas.

SYRINGES - *"for dosage of liquids" - "0 dead volume needle" - "serie T"*



Plunger: stainless steel (plunger runs inside the needle) / **Barrel:** borosilicate glass / **Precision:** < +/- 1% of the volume
Main use: sample dosage for gas chromatography & dosage of small volume samples & for thin layer chromatography

catalogue number	syringe volume	needle type	needle serie	needle descriptions	pack quantity
094.31.005	0,5 µl	A	T	"0" dead volume syringe	1 piece
094.31.010	1,0 µl	A	T	"0" dead volume syringe	1 piece
094.31.020	2,0 µl	A	T	"0" dead volume syringe	1 piece
094.31.050	5,0 µl	A	T	"0" dead volume syringe	1 piece
094.31.100	10 µl	A	T	"0" dead volume syringe	1 piece
094.31.250	25 µl	A	T	"0" dead volume syringe	1 piece
094.32.005	0,5 µl	B	T	"0" dead volume syringe	1 piece
094.32.010	1,0 µl	B	T	"0" dead volume syringe	1 piece
094.32.020	2,0 µl	B	T	"0" dead volume syringe	1 piece

catalogue number	syringe volume	needle type	needle serie	needle descriptions	pack quantity
094.32.050	5,0 µl	B	T	"0" dead volume syringe	1 piece
094.32.100	10 µl	B	T	"0" dead volume syringe	1 piece
094.32.250	25 µl	B	T	"0" dead volume syringe	1 piece
094.33.010	1,0 µl	D	T	"0" dead volume syringe	1 piece
094.33.020	2,0 µl	D	T	"0" dead volume syringe	1 piece
094.33.050	5,0 µl	D	T	"0" dead volume syringe	1 piece
094.33.100	10 µl	D	T	"0" dead volume syringe	1 piece
094.33.250	25 µl	D	T	"0" dead volume syringe	1 piece

SYRINGES - *"for dosage of liquids" – "fixed needle" – "serie FN"*



Plunger: stainless steel / **Barrel:** borosilicate glass / **Precision:** < +/- 1% of the volume
Main use: sample dosage for gas chromatography & HPLC valves & autosamplers

catalogue number	syringe volume	needle type	needle serie	needle descriptions	pack quantity
094.11.005	5 µl	A	FN	fixed needle	1 piece
094.11.010	10 µl	A	FN	fixed needle	1 piece
094.11.025	25 µl	A	FN	fixed needle	1 piece
094.11.050	50 µl	A	FN	fixed needle	1 piece
094.11.100	100 µl	A	FN	fixed needle	1 piece
094.11.250	250 µl	A	FN	fixed needle	1 piece
094.11.500	500 µl	A	FN	fixed needle	1 piece
094.12.005	5 µl	B	FN	fixed needle	1 piece
094.12.010	10 µl	B	FN	fixed needle	1 piece
094.12.025	25 µl	B	FN	fixed needle	1 piece
094.12.050	50 µl	B	FN	fixed needle	1 piece
094.12.100	100 µl	B	FN	fixed needle	1 piece
094.12.250	250 µl	B	FN	fixed needle	1 piece
094.12.500	500 µl	B	FN	fixed needle	1 piece

catalogue number	syringe volume	needle type	needle serie	needle descriptions	pack quantity
094.13.005	5 µl	C	FN	fixed needle	1 piece
094.13.010	10 µl	C	FN	fixed needle	1 piece
094.13.025	25 µl	C	FN	fixed needle	1 piece
094.13.050	50 µl	C	FN	fixed needle	1 piece
094.13.100	100 µl	C	FN	fixed needle	1 piece
094.13.250	250 µl	C	FN	fixed needle	1 piece
094.13.500	500 µl	C	FN	fixed needle	1 piece
094.14.005	5 µl	D	FN	fixed needle	1 piece
094.14.010	10 µl	D	FN	fixed needle	1 piece
094.14.025	25 µl	D	FN	fixed needle	1 piece
094.14.050	50 µl	D	FN	fixed needle	1 piece
094.14.100	100 µl	D	FN	fixed needle	1 piece
094.14.250	250 µl	D	FN	fixed needle	1 piece
094.14.500	500 µl	D	FN	fixed needle	1 piece

SYRINGES - *"for dosage of liquids" – "removable needle" – "serie RN"*

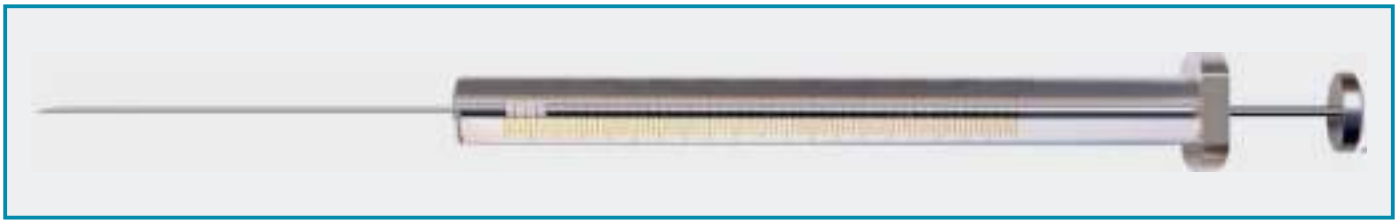


Plunger: stainless steel / **Barrel:** borosilicate glass / **Precision:** < +/- 1% of the volume
Main use: sample dosage for gas chromatography & HPLC valves & autosamplers

catalogue number	syringe volume	needle type	needle serie	needle descriptions	pack quantity
094.21.005	5 µl	A	RN	removable needle	1 piece
094.21.010	10 µl	A	RN	removable needle	1 piece
094.21.025	25 µl	A	RN	removable needle	1 piece
094.21.050	50 µl	A	RN	removable needle	1 piece
094.21.100	100 µl	A	RN	removable needle	1 piece
094.21.250	250 µl	A	RN	removable needle	1 piece
094.21.500	500 µl	A	RN	removable needle	1 piece

catalogue number	syringe volume	needle type	needle serie	needle descriptions	pack quantity
094.22.005	5 µl	B	RN	removable needle	1 piece
094.22.010	10 µl	B	RN	removable needle	1 piece
094.22.025	25 µl	B	RN	removable needle	1 piece
094.22.050	50 µl	B	RN	removable needle	1 piece
094.22.100	100 µl	B	RN	removable needle	1 piece
094.22.250	250 µl	B	RN	removable needle	1 piece
094.22.500	500 µl	B	RN	removable needle	1 piece

SYRINGES - *"for dosage of gas & liquids" – "fixed needle" – "serie H"*



Plunger: stainless steel with PTFE seal / **Barrel:** borosilicate glass / **Precision:** < +/- 1% of the volume
Main use: sample dosage for gas chromatography & HPLC valves & autosamplers & dosage of aggresive fluids

catalogue number	syringe volume	needle type	needle serie	needle descriptions	pack quantity
094.41.005	5 µl	A	H	fixed needle	1 piece
094.41.010	10 µl	A	H	fixed needle	1 piece
094.41.025	25 µl	A	H	fixed needle	1 piece
094.41.050	50 µl	A	H	fixed needle	1 piece
094.41.100	100 µl	A	H	fixed needle	1 piece
094.41.250	250 µl	A	H	fixed needle	1 piece
094.41.500	500 µl	A	H	fixed needle	1 piece
094.41.901	1,0 ml	A	H	fixed needle	1 piece
094.41.902	2,5 ml	A	H	fixed needle	1 piece
094.41.905	5,0 ml	A	H	fixed needle	1 piece
094.41.910	10,0 ml	A	H	fixed needle	1 piece
094.42.005	5 µl	B	H	fixed needle	1 piece
094.42.010	10 µl	B	H	fixed needle	1 piece
094.42.025	25 µl	B	H	fixed needle	1 piece
094.42.050	50 µl	B	H	fixed needle	1 piece
094.42.100	100 µl	B	H	fixed needle	1 piece

catalogue number	syringe volume	needle type	needle serie	needle descriptions	pack quantity
094.42.250	250 µl	B	H	fixed needle	1 piece
094.42.500	500 µl	B	H	fixed needle	1 piece
094.42.901	1,0 ml	B	H	fixed needle	1 piece
094.42.902	2,5 ml	B	H	fixed needle	1 piece
094.42.905	5,0 ml	B	H	fixed needle	1 piece
094.42.910	10,0 ml	B	H	fixed needle	1 piece
094.43.005	5 µl	D	H	fixed needle	1 piece
094.43.010	10 µl	D	H	fixed needle	1 piece
094.43.025	25 µl	D	H	fixed needle	1 piece
094.43.050	50 µl	D	H	fixed needle	1 piece
094.43.100	100 µl	D	H	fixed needle	1 piece
094.43.250	250 µl	D	H	fixed needle	1 piece
094.43.500	500 µl	D	H	fixed needle	1 piece
094.43.901	1,0 ml	D	H	fixed needle	1 piece
094.43.902	2,5 ml	D	H	fixed needle	1 piece
094.43.905	5,0 ml	D	H	fixed needle	1 piece
094.43.910	10,0 ml	D	H	fixed needle	1 piece

SYRINGES - *"for dosage of gas & liquids" – "removable needle" – "serie H"*

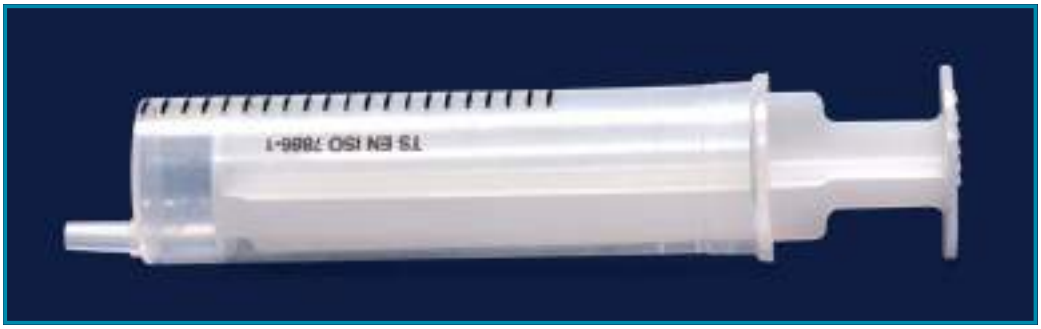


Plunger: stainless steel with PTFE seal / **Barrel:** borosilicate glass / **Precision:** < +/- 1% of the volume
Main use: sample dosage for gas chromatography & HPLC valves & autosamplers & dosage of aggresive fluids

catalogue number	syringe volume	needle type	needle serie	needle descriptions	pack quantity
094.51.005	5 µl	A	H	removable needle	1 piece
094.51.010	10 µl	A	H	removable needle	1 piece
094.51.025	25 µl	A	H	removable needle	1 piece
094.51.050	50 µl	A	H	removable needle	1 piece
094.51.100	100 µl	A	H	removable needle	1 piece
094.51.250	250 µl	A	H	removable needle	1 piece
094.51.500	500 µl	A	H	removable needle	1 piece
094.51.901	1,0 ml	A	H	removable needle	1 piece
094.51.902	2,5 ml	A	H	removable needle	1 piece
094.51.905	5,0 ml	A	H	removable needle	1 piece
094.51.910	10,0 ml	A	H	removable needle	1 piece
094.52.005	5 µl	B	H	removable needle	1 piece
094.52.010	10 µl	B	H	removable needle	1 piece
094.52.025	25 µl	B	H	removable needle	1 piece
094.52.050	50 µl	B	H	removable needle	1 piece
094.52.100	100 µl	B	H	removable needle	1 piece

catalogue number	syringe volume	needle type	needle serie	needle descriptions	pack quantity
094.52.250	250 µl	B	H	removable needle	1 piece
094.52.500	500 µl	B	H	removable needle	1 piece
094.52.901	1,0 ml	B	H	removable needle	1 piece
094.52.902	2,5 ml	B	H	removable needle	1 piece
094.52.905	5,0 ml	B	H	removable needle	1 piece
094.52.910	10,0 ml	B	H	removable needle	1 piece
094.53.005	5 µl	D	H	removable needle	1 piece
094.53.010	10 µl	D	H	removable needle	1 piece
094.53.025	25 µl	D	H	removable needle	1 piece
094.53.050	50 µl	D	H	removable needle	1 piece
094.53.100	100 µl	D	H	removable needle	1 piece
094.53.250	250 µl	D	H	removable needle	1 piece
094.53.500	500 µl	D	H	removable needle	1 piece
094.53.901	1,0 ml	D	H	removable needle	1 piece
094.53.902	2,5 ml	D	H	removable needle	1 piece
094.53.905	5,0 ml	D	H	removable needle	1 piece

SYRINGES - *"polypropylene" - "sterile" - "single use"*





- 2 pieces syringes are suitable for HPLC applications.
- Sterile, pyrogen-free and for single use, latex and silicone oil free.
- Consists of very clear, highly transparent and absolutely leak-tight polypropylene barrel and polyethylene piston.
- Ergonomically designed for single-handed operation. Featured with accurate graduated scale marking.
- Smooth piston movement offers reduced sliding force.
- Defined position at "0" volume level to feel when piston is completely inserted.
- Defined safety stop to avoid accidental pull-out of plunger and loss of sample.
- Design of the finger grip flanges ensure stability and comfort during injection.
- Supplied without syringe needles. Packed in individual blister packing.

catalogue number	volume	overall length	pack quantity
094.91.002	2 ml	87 mm	300 pieces
094.91.005	5 ml	87 mm	225 pieces
094.91.010	10 ml	100 mm	150 pieces
094.91.020	20 ml	115 mm	100 pieces

SYRINGES - *"glass" - "with luer-lock"*





- Manufactured from borosilicate glass. Featured with a stainless steel luer-lock system.
- Luer-lock grabs the needle or syringe filter stem and guarantees leak-proof delivery of the liquid even under high pressure.
- Luer-Barrel and the piston can be repeatedly autoclavable.
- Ergonomically designed for single-handed operation.
- Featured with accurate graduated scale marking.
- Smooth piston movement offers reduced sliding force.
- Design of the finger grip flanges ensure stability and comfort during injection.

catalogue number	volume	overall length	pack quantity
094.92.001	1 ml	85 mm	1 piece
094.92.005	5 ml	105 mm	1 piece
094.92.010	10 ml	130 mm	1 piece
094.92.020	20 ml	145 mm	1 piece
094.92.050	50 ml	180 mm	1 piece

CHROMATOGRAPHY VIALS & SEPTAS & CAPS

In chromatography a wide variety of vials are used as sample containers. As they are mainly used by automatic instruments strict obedience of all dimensions is essential for trouble-free tests. Besides of these physical properties the vials have to fulfill requirements regarding inertness and cleanliness.



chromatography vials

✔ Vials are either manufactured from glass or plastic. Glass vials are manufactured from 1st hydrolic glass tubings with low expansion coefficient.

✔ Hydrolic glass quality offers perfect resistance to all chemicals and higher hydrolic resistance.

✔ Plastic vials are manufactured from polypropylene with a very good resistance to most of the chemicals and high hydrolic resistance.



vial cap without slit *vial cap with slit*

septas & caps

✔ Sealing units for vials are combination of caps and septas. Caps can be offered either with slit or without slit.

✔ For problem-free and correct results seals should also be inert and uncontaminated.

✔ Almost all septa are laminated on one side with PTFE, which has a high chemical resistance and forms an inert barrier between the sample in the vial and the cap of the septa.



vial packing

✔ Some vials (specially small size ones such as N8, N9 and N11) are packed in a polystyrene boxes.

✔ This kind of packing provides guarantees protection against dust and other enviromental effects.

✔ The glass clear polystyrene box makes the vials always clearly visible at all times.



cap packing

✔ Caps are usually packed in tamper-proof evident zip-locked bags.

✔ These bags allow easy identification of the content due to the transparent P.E material.

✔ The zip-lock enables resealing of the bag after used.



VIALS - "glass" "screw cap" - "N8"

- Manufactured from hydrolic No:1 glass. Supplied without caps & septas.
- Offers perfect shape, very low dimensional tolerance and exact wall thickness for optimum performance.
- Featured with volume graduations and marking area.

catalogue number	vial dimensions	volume	color	pack quantity
095.00.001	11,6 x 32 mm	1,5 ml	clear	100 pieces
095.00.002	11,6 x 32 mm	1,5 ml	amber	100 pieces



VIALS - "glass" "screw cap" - "N8"

- Manufactured from hydrolic No:1 glass. Supplied already assembled cap & septa for easier and practical use.
- Offers perfect shape, very low dimensional tolerance and exact wall thickness for optimum performance.
- Featured with volume graduations and marking area.

catalogue number	vial dimensions	volume	color	pack quantity
095.00.003	11,6 x 32 mm	1,5 ml	clear	100 pieces
095.00.004	11,6 x 32 mm	1,5 ml	amber	100 pieces



INSERTS - "glass" "for N8 size vials"

- Manufactured from hydrolic No:1 glass with perfect shape.
- Very low dimensional tolerance and exact wall thickness for perfect fit to vials with N8 neck size.
- Offers perfect solutions for applications where sample volume is limited.

catalogue number	product specifications	volume	vial dimensions	pack quantity
097.05.106	conical bottom	0,1 ml	5,0x31,0 mm	100 pieces
097.05.107	with P.P spring	0,1 ml	5,0x29,0 mm	100 pieces
097.05.108	flat bottom	0,25 ml	5,0x31,5 mm	100 pieces

CAPS & SEPTAS - "for N8 vials"



- Offer optimum system performance. Designed to work excellently with needles. All of them are specially sized for proper sealings.
- Packed in tamper-proof evident, transparent, zip-locked bags that allow easy identification of the content due to the transparent polyethylene material.
- The zip-lock enables resealing of the bag after use.

catalogue number	product specifications	pack quantity
096.00.001	silicone / PTFE - without slit	100 pieces
096.00.002	silicone / PTFE - with slit	100 pieces
096.00.003	rubber / FEP - without slit	100 pieces



VIALS - "glass" "screw cap" - "N9"

- Manufactured from hydrolic No:1 glass. Supplied without caps & septas.
- Offers perfect shape, very low dimensional tolerance and exact wall thickness for optimum performance.
- Featured with volume graduations and marking area.

catalogue number	vial dimensions	volume	color	pack quantity
095.01.001	11,6 x 32 mm	1,5 ml	clear	100 pieces
095.01.002	11,6 x 32 mm	1,5 ml	amber	100 pieces



VIALS - "glass" "screw cap" - "N9"

- Manufactured from hydrolic No:1 glass. ***Supplied with already assembled cap & septa for easier and practical use.***
- Offers perfect shape, very low dimensional tolerance and exact wall thickness for optimum performance.
- Featured with volume graduations and marking area.

catalogue number	vial dimensions	volume	color	pack quantity
095.01.005	11,6 x 32 mm	1,5 ml	clear	100 pieces
095.01.006	11,6 x 32 mm	1,5 ml	amber	100 pieces



INSERTS - "glass" "for N9 size vials"

- Manufactured from hydrolic No:1 glass with perfect shape.
- Very low dimensional tolerance and exact wall thickness for perfect fit to vials with N9 neck size.
- Offer perfect solutions for applications where sample volume is limited.

catalogue number	product specifications	volume	vial dimensions	pack quantity
097.05.110	conical bottom	0,2 ml	6,0x31,0 mm	100 pieces
097.05.111	with P.P spring	0,1 ml	5,7x29,0 mm	100 pieces
097.05.109	flat bottom	0,3 ml	5,8x31,5 mm	100 pieces



VIALS - "glass" "screw cap" - "N9" "with integrated insert"

- Manufactured from hydrolic No:1 glass. Supplied without caps & septas.
- Offers perfect shape, very low dimensional tolerance and exact wall thickness for optimum performance.
- Featured with a 0,2 ml integrated insert.

catalogue number	vial dimensions	volume	color	pack quantity
095.01.003	11,6 x 32 mm	0,2 ml	clear	100 pieces
095.01.004	11,6 x 32 mm	0,2 ml	amber	100 pieces



VIALS - "P.P" "screw cap" - "N9"

- Manufactured from polypropylene. Supplied without caps & septas.
- Offers perfect shape, very low dimensional tolerance and exact wall thickness for optimum performance.
- Featured with volume graduations and marking area.

catalogue number	vial dimensions	volume	color	pack quantity
095.11.001	11,6 x 32 mm	1,5 ml	clear	100 pieces



VIALS - "P.P" "screw cap" - "N9" "with integrated insert"

- Manufactured from polypropylene. Supplied without caps & septas.
- Offers perfect shape, very low dimensional tolerance and exact wall thickness for optimum performance.
- Featured with a 0,7 ml integrated insert.

catalogue number	vial dimensions	volume	color	pack quantity
095.11.003	11,6 x 32 mm	0,7 ml	clear	100 pieces



VIALS - "glass" "screw cap" - "N10"

- Manufactured from hydrolic No:1 glass. Supplied without caps & septas.
- Offers perfect shape, very low dimensional tolerance and exact wall thickness for optimum performance.
- Featured with volume graduations and marking area.

catalogue number	vial dimensions	volume	color	pack quantity
095.04.001	11,6 x 32 mm	1,5 ml	clear	100 pieces
095.04.002	11,6 x 32 mm	1,5 ml	amber	100 pieces



INSERTS - "glass" "for N10 size vials"

- Manufactured from hydrolic No:1 glass with perfect shape.
- Very low dimensional tolerance and exact wall thickness for perfect fit to vials with N10 neck size.
- Offer perfect solutions for applications where sample volume is limited.

catalogue number	product specifications	volume	vial dimensions	pack quantity
097.05.110	conical bottom	0,2 ml	6,0x31,0 mm	100 pieces
097.05.111	with P.P spring	0,1 ml	5,7x29,0 mm	100 pieces
097.05.109	flat bottom	0,3 ml	5,8x31,5 mm	100 pieces

CAPS & SEPTAS - *"for N9 & N10 vials"*





➤ Offer optimum system performance. Designed to work excellently with needles. All of them are specially sized for proper sealings.

➤ Packed in tamper-proof evident, transparent, zip-locked bags that allow easy identification.

for N9 vials	for N10 vials	product specifications	pack quantity
096.01.001	095.04.003	silicone / PTFE - without slit	100 pieces
096.01.002	095.04.004	silicone / PTFE - with slit	100 pieces
096.01.003	095.04.005	rubber / TEF - without slit	100 pieces



VIALS - *"glass" "crimp cap" - "N11"*

➤ Manufactured from hydrolic No:1 glass. Supplied without caps & septas.

➤ Offers perfect shape, very low dimensional tolerance and exact wall thickness for optimum performance.

➤ Featured with volume graduations and marking area.

catalogue number	vial dimensions	volume	color	pack quantity
095.02.001	11,6 x 32 mm	1,5 ml	clear	100 pieces
095.02.002	11,6 x 32 mm	1,5 ml	amber	100 pieces



RACKS / WORKSTATIONS - *"for vials"*

➤ Manufactured from autoclavable polycarbonate with high mechanical strength.

➤ Uniquely designed to carry 50 pieces of 2,0 ml & 5,0 ml volume vials in 10 x 5 array.

➤ Optimum design of the wells keeps the vials at their positions firmly and vertical.

➤ Alphanumerical index on vial rows enables easy identification of vial positions.

➤ Featured with a frosted write on and labelling area at the front side of the workstation.

➤ Racks can be stacked both empty or with vials on top of each other for space saving solutions.

➤ **Alternative 2 racks:** ➤ **For vials 11,60 mm diameter** ➤ **For vials 14,75 mm diameter**



Racks can be stacked both empty or with vials on top of each other for space saving solutions.

catalogue number	for vials diameter	well quantity	vial array	L x W x H	rack color	pack quantity
095.95.001	11,60 mm	50	5 x 10	110x195x22 mm	blue	1 piece
095.95.002	14,75 mm	50	5 x 10	115x240x30 mm	dark blue	1 piece



VIALS - "glass" "crimp cap" - "N11" "with integrated insert"

- Manufactured from hydrolic No:1 glass. Supplied without caps & septas.
- Offers perfect shape, very low dimensional tolerance and exact wall thickness for optimum performance.
- Featured with a 0,2 ml integrated insert.

catalogue number	vial dimensions	volume	color	pack quantity
095.02.003	11,6 x 32 mm	0,2 ml	clear	100 pieces
095.02.004	11,6 x 32 mm	0,2 ml	amber	100 pieces



INSERTS - "glass" "for N11 size vials"

- Manufactured from hydrolic No:1 glass with perfect shape.
- Very low dimensional tolerance and exact wall thickness for perfect fit to vials with N11 neck size.
- Offer perfect solutions for applications where sample volume is limited.

catalogue number	product specifications	volume	vial dimensions	pack quantity
097.05.106	conical bottom	0,1 ml	5,0x31,0 mm	100 pieces
097.05.107	with P.P spring	0,1 ml	5,0x29,0 mm	100 pieces
097.05.108	flat bottom	0,25 ml	5,0x31,0 mm	100 pieces
097.05.110	conical bottom	0,2 ml	6,0x31,0 mm	100 pieces
097.05.111	with P.P spring	0,1 ml	5,7x29,0 mm	100 pieces
097.05.109	flat bottom	0,3 ml	6,0x31,0 mm	100 pieces



VIALS - "P.P" "snap ring" - "N11" "with integrated insert"

- Manufactured from polypropylene. Supplied without caps & septas.
- Offers perfect shape, very low dimensional tolerance and exact wall thickness for optimum performance.
- Featured with a 0,3 ml integrated insert.

catalogue number	vial dimensions	volume	color	pack quantity
095.12.007	11,6 x 32 mm	0,3 ml	clear	100 pieces
095.12.008	11,6 x 32 mm	0,3 ml	amber	100 pieces

CAPS & SEPTAS - "for N11 vials"



- Offer optimum system performance. Designed to work excellently with needles. All of them are specially sized for proper sealings.
- Packed in tamper-proof evident, transparent, zip-locked bags that allow easy identification.
- The zip-lock enables resealing of the bag after use.

catalogue number	cap type	product specifications	pack quantity
096.02.001	crimp	silicone / PTFE - without slit	100 pieces
096.02.002	crimp	rubber / TEF - without slit	100 pieces
096.02.003	snap	silicone / PTFE - without slit	100 pieces
096.02.004	snap	silicone / PTFE - with slit	100 pieces



VIALS - *"glass" - "screw cap" - "N13"*



➤ Manufactured from hydrolic No:1 glass with perfect shape, very low dimensional tolerance and exact wall thickness for optimum performance.

catalogue number	vial dimensions	volume	color	pack quantity
095.05.001	14,75 x 45 mm	4,0 ml	clear	100 pieces
095.05.002	14,75 x 45 mm	4,0 ml	amber	100 pieces



VIALS - *"glass" - "screw cap" - "N15"*



➤ Manufactured from hydrolic No:1 glass with perfect shape, very low dimensional tolerance and exact wall thickness for optimum performance.

catalogue number	vial dimensions	volume	color	pack quantity
095.06.001	18,5 x 66 mm	12,0 ml	clear	100 pieces
095.06.002	18,5 x 66 mm	12,0 ml	amber	100 pieces

CAPS & SEPTAS - *"for N13 vials"*





➤ Offer optimum system performance. Designed to work excellently with needles. All of them are specially sized for proper sealings.

➤ Packed in tamper-proof evident, transparent, zip-locked bags that allow easy identification. The zip-lock enables resealing of the bag after use.

catalogue number	product specifications	pack quantity
096.05.003	silicone / PTFE - without slit	100 pieces
096.05.004	rubber / FEP - without slit	100 pieces

CAPS & SEPTAS - *"for N15 vials"*



➤ Offer optimum system performance. Designed to work excellently with needles. All of them are specially sized for proper sealings.

➤ Packed in tamper-proof evident, transparent, zip-locked bags that allow easy identification. The zip-lock enables resealing of the bag after use.

catalogue number	product specifications	pack quantity
095.06.003	white septum / beige PTFE - without hole	100 pieces





VIALS - "glass" - "screw cap" - "N20"

➤ Manufactured from hydrolic No:1 glass. Supplied without caps & septas.

➤ Offers perfect shape, very low dimensional tolerance and exact wall thickness for optimum performance.

catalogue number	vial dimensions	volume	color	pack quantity
095.03.001	22,7 x 86,0 mm	22,0 ml	clear	100 pieces
095.03.002	22,7 x 86,0 mm	22,0 ml	amber	100 pieces

CAPS & SEPTAS - "for N20 vials"



➤ Offer optimum system performance. Designed to work excellently with needles. All of them are specially sized for proper sealings.

➤ Packed in tamper-proof evident, transparent, zip-locked bags that allow easy identification. The zip-lock enables resealing of the bag after use.

catalogue number	product specifications	pack quantity
096.05.001	silicone / PTFE - without hole	100 pieces





VIALS - "glass" - "crimp cap" - "N20"

➤ Manufactured from hydrolic No:1 glass. Supplied without caps & septas.

➤ Offers perfect shape, very low dimensional tolerance and exact wall thickness for optimum performance.

catalogue number	vial dimensions	volume	color	pack quantity
095.03.003	20,5 x 54,5 mm	10,0 ml	clear	100 pieces
095.03.004	20,5 x 54,5 mm	10,0 ml	amber	100 pieces
097.03.001	22,5 x 46,0 mm	10,0 ml	clear	100 pieces
097.03.002	22,5 x 46,0 mm	10,0 ml	amber	100 pieces
097.04.001	22,5 x 75,5 mm	20,0 ml	clear	100 pieces
097.04.002	22,5 x 75,5 mm	20,0 ml	amber	100 pieces

CAPS & SEPTAS - "for N20 crimp vials"





➤ Offer optimum system performance. Designed to work excellently with needles. All of them are specially sized for proper sealings.

➤ Packed in tamper-proof evident, transparent, zip-locked bags that allow easy identification. The zip-lock enables resealing of the bag after use.

catalogue number	product specifications	pack quantity
096.03.001	silicone / PTFE - without slit	100 pieces



VIALS - *"glass" - "screw cap" - "N24"*

➤ Manufactured from hydrolic No:1 glass. Supplied without caps & septas.

➤ Offers perfect shape, very low dimensional tolerance and exact wall thickness for optimum performance.

catalogue number	vial dimensions	volume	color	pack quantity
095.03.011	27,5 x 95,0 mm	40,0 ml	clear	100 pieces
095.03.012	27,5 x 95,0 mm	40,0 ml	amber	100 pieces



CAPS & SEPTAS - *"for N24 vials"*





➤ Designed to work excellently with needles. Specially sized for proper sealings. Packed in tamper-proof evident, transparent, zip-locked bags that allow easy identification of interior.

catalogue number	product specifications	pack quantity
096.05.011	silicone / PTFE - without hole	100 pieces
096.05.012	silicone / PTFE - with hole	100 pieces

TUBE BOX - *"100 well" - "hinged lid"*

➤ Manufactured from autoclavable polypropylene with high mechanical strength.Guarantees high temperature resistance between -20°C to +121°C.

➤ Uniquely designed to carry 100 vials with 11,0 - 12,0 mm diameter in 10 x 10 array. Easily stackable for reducing storage space.

➤ Hinged lid with built-in stop allows easy one-handed operation and access to vials.

➤ Clear box lid enables easy identification of box content and protects the vials from dust and other enviromental effects.

➤ Different color options offer visual sorting and organising of different vials.

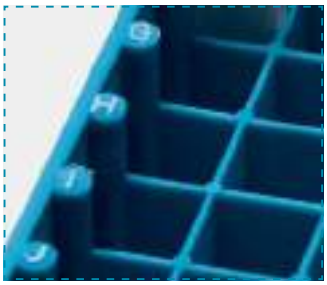
➤ Alphanumerical index both on tube rows and the lid enables easy identification of tube positions.



catalogue number	lid type	for vials diameter	well quantity	vial array	L x W x H	rack color	pack quantity
080.01.002B	hinged	11,6 mm	100	10 x 10	141x151x53 mm	blue	1 piece
080.01.002P	hinged	11,6 mm	100	10 x 10	141x151x53 mm	purple	1 piece
080.01.002R	hinged	11,6 mm	100	10 x 10	141x151x53 mm	ruby	1 piece



Clear box lid provides protection of vials from environmental effects.



Alphanumerical index enables easy identification of vial positions.



Different colors offer visual sorting and organising of different samples.



Corners frames enable perfect stacking on each other without sliding.





Offers adjustable crimping pressure by an easily accessible and well visible knob on the crimping head.

CRIMPERS & DECAPPERS - *"manual"*

- Manual crimpers and decappers are much lighter than the standard alternatives. They never create fatigue after long extended working periods.
- Ergonomical design offers improved comfort over blocky metal grips.
- Offers adjustable crimping pressure by a easily accessible and well visible knob on the crimping head.
- Activated by bottom handle motion guarantees faster and safer hold of the tool during crimping.
- Due to the design of the crimper head better vertical clearence over the vial is assured.



Bottom pull handle design for faster and safer hold of the tool during crimping and decapping.

catalogue number	product descriptions	pack quantity
097.01.011	crimper - for N 11 caps	1 piece
097.01.020	crimper - for N 20 caps	1 piece
097.02.011	decapper - for N 11 caps	1 piece
097.02.020	decapper - for N 20 caps	1 piece





CRIMPERS & DECAPPERS - *"motorised"*

- Motorised crimpers and decappers are featured with a powerfull motor with a fast cycle.
- They never create fatigue after long extended working periods.
- Ergonomical design offers improved comfort over blocky metal grips.
- Offers adjustable working pressure by an electronic control for accurate and reproducible results.
- Convenient controls on top of the instrument provide easy and fast adjustment of the working pressure.
- Due to the design of the crimper head better vertical clearence over the vial is assured.
- Featured with a long lasting battery and can be operated while charging.
- Can be charged with the supplied power supply. Delivered with a plug set for operations at different countries.

catalogue number	product descriptions	pack quantity
097.03.011	crimper - for N 11 caps	1 piece
097.03.020	crimper - for N 20 caps	1 piece
097.04.011	decapper - for N 11 caps	1 piece
097.04.020	decapper - for N 20 caps	1 piece

ISOLAB Laborgeräte GmbH

DIN EN ISO CERTIFIED 9001



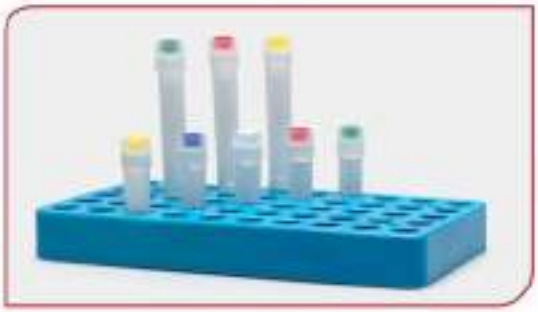



life sciences microscopy microbiology













TUBES - *"centrifuge" "clear" - "conical bottom" - "screw cap"*

- Manufactured from ultra clear, high grade polypropylene by fully automatic, human touch free machines.
- Ultra rugged tube wall guarantees resistance to high centrifugal forces up to 6.000 RCF.
- Autoclavable at 121°C for 20 minutes. Caps should not be kept closed during autoclaving process. Otherwise tubes can be deformed.
- **Alternative 2 tubes:** **aseptic tubes** **sterile tubes**
- Aseptic tubes are manufactured in germ-free, class 10.000 sterile production areas with extreme sterlity control.
- Sterile tubes are manufactured in germ-free, class 10.000 sterile production areas and then re-sterilised by gamma irradiation.
- Sterile tubes are supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.
- Caps are manufactured from polyethylene with large ridges for increased grip for easy opening and closing. This feature specially increases the speed when working with gloves.
- Cap inner design ensures hermetical and leak-proof closure. Caps can be opened and closed with single hand. A 3/4 turn of the cap will be sufficient for full closure.
- Graduations on side wall offer visual control of the filled volume. Graduations are in 0,5 ml increment for 15 ml tubes. For 50 ml tubes the volume increment is 2,5 ml.
- Printed marking area on side wall enables easy marking and labelling.
- Flat cap top provides multiple options for marking and labelling of the tube.
- Precise volume marks at the tube bottom clearly and visually show the liquid volume at the tube bottom.
- Individually single packed sterile tubes have printed lot number, production date and expiry date on the package.


ISOLAB Laborgeräte GmbH

CERTIFICATE of COMPLIANCE and QUALITY







*Sterile tubes are supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free".***

***"DNase, RNase and Pyrogen free"** certificate shows the result criterias and guarantees the documentation of the quality.*

Certification process starts from inspection of raw materials, covers the entire production steps and ends with final tests after production of each lot.

Precise volume marks at the tube bottom clearly show the liquid volume at the tube bottom.

Individually single packed sterile tubes have printed lot number, production date and expiry date on the package.

Sterile tubes are manufactured in germ-free, class 10.000 sterile production areas and then re-sterilised by gamma irradiation.

*Sterile tubes are supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free".***

catalogue number	volume	tube dimensions	product specifications	packing specifications	pack quantity	box quantity
078.02.001	15 ml	17 x 120 mm	non sterilized	pack in bag	50 pieces	500 pieces
078.02.003	50 ml	30 x 120 mm	non sterilized	pack in bag	50 pieces	500 pieces
078.02.007	15 ml	17 x 120 mm	sterilized - aseptic	pack in bag	50 pieces	500 pieces
078.02.008	50 ml	30 x 120 mm	sterilized - aseptic	pack in bag	50 pieces	500 pieces
078.02.002	15 ml	17 x 120 mm	sterilized - DNA & RNA free	single flow pack	50 pieces	500 pieces
078.02.004	50 ml	30 x 120 mm	sterilized - DNA & RNA free	single flow pack	50 pieces	500 pieces

TUBES - *"centrifuge" "amber" - "conical bottom" - "screw cap"*



- Manufactured from high grade polypropylene by fully automatic, human touch free machines. Specially recommended to be used with UV light sensitive samples.
- Ultra rugged tube wall guarantees resistance to high centrifugal forces up to 6.000 RCF.
- Autoclavable at 121°C for 20 minutes. Caps should not be kept closed during autoclaving process. Otherwise tubes can be deformed.
- **Alternative 2 tubes:**
  - **aseptic tubes**
  - **sterile tubes**
- Aseptic tubes are manufactured in germ-free, class 10.000 sterile production areas with extreme sterility control.
- Sterile tubes are manufactured in germ-free, class 10.000 sterile production areas and then re-sterilised by gamma irradiation.
- Sterile tubes are supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.
- Caps are manufactured from polyethylene with large ridges for increased grip for easy opening and closing. This feature specially increases the speed when working with gloves.
- Cap inner design ensures hermetical and leak-proof closure. Caps can be opened and closed with single hand. A 3/4 turn of the cap will be sufficient for full closure.
- Graduations on side wall offer visual control of the filled volume. Graduations are in 0,5 ml increment for 15 ml tubes. For 50 ml tubes the volume increment is 2,5 ml.
- Printed marking area on side wall enables easy marking and labelling.
- Flat cap top provides multiple options for marking and labelling of the tube.
- Precise volume marks at the tube bottom clearly and visually show the liquid volume at the tube bottom.
- Individually single packed sterile tubes have printed lot number, production date and expiry date on the package.

Sterile tubes are manufactured in germ-free, class 10.000 sterile production areas and then re-sterilised by gamma irradiation.

*Sterile tubes are supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free".***



Unique cap design with large ridges enables single hand operation. A ¾ turn of the cap will be sufficient for hermetical and leak-proof closure of the tube.



Precise volume marks at the tube bottom clearly and visually show the liquid volume at the tube bottom.



Printed marking area on side wall enables easy marking and labelling.
Clear graduations for easy volume reference.

catalogue number	volume	tube dimensions	product specifications	packing specifications	pack quantity	box quantity
078.12.001	15 ml	17 x 120 mm	non sterilized	pack in bag	50 pieces	500 pieces
078.12.003	50 ml	30 x 120 mm	non sterilized	pack in bag	50 pieces	500 pieces
078.12.007	15 ml	17 x 120 mm	sterilized - aseptic	pack in bag	50 pieces	500 pieces
078.12.008	50 ml	30 x 120 mm	sterilized - aseptic	pack in bag	50 pieces	500 pieces
078.12.002	15 ml	17 x 120 mm	sterilized - DNA & RNA free	single flow pack	50 pieces	500 pieces
078.12.004	50 ml	30 x 120 mm	sterilized - DNA & RNA free	single flow pack	50 pieces	500 pieces



TUBES - *"centrifuge" "clear" - "self standing" - "screw cap"*

- Manufactured from ultra clear, high grade polypropylene by fully automatic, human touch free machines.
- Ultra rugged tube wall guarantees resistance to high centrifugal forces up to 6.000 RCF.
- Autoclavable at 121°C for 20 minutes. Caps should not be kept closed during autoclaving process. Otherwise tubes can be deformed.
- **Alternative 2 tubes:** **aseptic tubes** / **sterile tubes**
- Aseptic tubes are manufactured in germ-free, class 10.000 sterile production areas with extreme sterility control.
- Sterile tubes are manufactured in germ-free, class 10.000 sterile production areas and then resterilised by gamma irradiation.
- Sterile tubes are supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.
- Self stands on the laboratory benches without the need of any tube support.
- Caps are manufactured from polyethylene with large ridges for increased grip for easy opening and closing. Other technical specifications are exactly similar to the conical bottom centrifuge tubes.

catalogue number	volume	tube dimensions	product specifications	packing specifications	pack quantity	box quantity
078.02.005	50 ml	30 x 120 mm	non sterilized	pack in bag	50 pieces	500 pieces
078.02.009	50 ml	30 x 120 mm	sterilized - aseptic	pack in bag	50 pieces	500 pieces
078.02.006	50 ml	30 x 120 mm	sterilized - DNA & RNA free	single flow pack	50 pieces	500 pieces



TUBES - *"centrifuge" "amber" - "self standing" - "screw cap"*

- Manufactured from high grade polypropylene by fully automatic, human touch free machines. Specially recommended to be used with UV light sensitive samples.
- Ultra rugged tube wall guarantees resistance to high centrifugal forces up to 6.000 RCF.
- Autoclavable at 121°C for 20 minutes. Caps should not be kept closed during autoclaving process. Otherwise tubes can be deformed.
- **Alternative 2 tubes:** **aseptic tubes** / **sterile tubes**
- Aseptic tubes are manufactured in germ-free, class 10.000 sterile production areas with extreme sterility control.
- Sterile tubes are manufactured in germ-free, class 10.000 sterile production areas and then resterilised by gamma irradiation.
- Sterile tubes are supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.
- Self stands on the laboratory benches without the need of any tube support.
- Caps are manufactured from polyethylene with large ridges for increased grip for easy opening and closing. Other technical specifications are exactly similar to the conical bottom centrifuge tubes.

catalogue number	volume	tube dimensions	product specifications	packing specifications	pack quantity	box quantity
078.12.005	50 ml	30 x 120 mm	non sterilized	pack in bag	50 pieces	500 pieces
078.12.009	50 ml	30 x 120 mm	sterilized - aseptic	pack in bag	50 pieces	500 pieces
078.12.006	50 ml	30 x 120 mm	sterilized - DNA & RNA free	single flow pack	50 pieces	500 pieces

DRY BATH INCUBATOR



- Offers precise heating of many tubes and plates with the help of advanced temperature controlled blocks providing excellent thermal contact.
- Integrated heater design provides homogenous heat distribution rate and enables rapid heating up.
- Fully insulated block chamber and protection lid guarantee hear preservation. Lid perfectly fits to the block chamber and protects the chamber interior and also the tubes from enviromental effects.
- Heating and timer functions can be controlled through a wheel control knob with digital LED indicators.
- Integrated PID temperature technology enables excellent heating control from ambient +5°C to 120°C with accuracy of +/- 0,5°C.
- Integrated overheat protection automatically turns off heating in case of over 140°C.
- Automatic timer enables time controlled operation between 1 minute to 99 hours and 59 minutes.
- Supplied with a block to be used with 2.0 ml tubes.

catalogue number	temperature range	accuracy	timer	dimensions	weight	power	voltage	frequency	pack quantity
604.01.001	ambient to 120°C	± 0.5 C	1 min. - 99 h. - 59 min.	95 x 150 x 50 mm	3 kg	160W	100 - 240 V	50 - 60 Hz	1 piece



Automatic timer enables time controlled operation between 1 minute to 99 hours and 59 minutes.



Lid perfectly fits to the block chamber and protects the chamber interior and also the tubes from enviromental effects.



BLOCK OPTIONS FOR DRY BATH

- Manufactured from high quality aluminium which offers excellent heat transfer.
- Blocks should be chosen from the table according to tube diameter. Supplied with a threatened rod for mounting.

catalogue number	to be used with	well quantity	well diameter	pack quantity
604.01.101	0.2 ml tubes	54	6.4 mm	1 piece
604.01.102	0.5 ml tubes	40	8.2 mm	1 piece
604.01.103	1.5 ml tubes	40	11.0 mm	1 piece
604.01.104	5 & 15 ml tubes	28	17.0 mm	1 piece
604.01.105	50 ml tubes	8	29.8 mm	1 piece
604.01.106	plates	1	-	1 piece







Optional blocks can be inserted or replaced practically with a supplied screw head tool.



TUBE RACKS - *"for 15 & 50 ml conical bottom centrifuge tubes" - "hedgehog design"*

- Manufactured from "modified" high quality ABS which enables the rack to be used in water baths without the risk of floating.
- Resistant to most acids, bases, and many commonly used solvents.
- "Hedgehog" designed cross formed tube support rods enable uniform aligning of tubes in their position firmly.
- Unique rack design allows easy viewing of the tube contents in 4 angles.
- Different color options offer visual sorting and organising of different samples.
- The interlocking design of the racks makes them ideal for creating a user friendly workstation.
- **Alternative 2 racks:** **Racks for 15 ml tubes** / **Racks for 50 ml tubes**
- These racks can also be used as drying rack for tubes and chromotography plates.

catalogue number	for tubes	well quantity	tube array	L x W x H	rack color	pack quantity
079.08.015B	15 ml	50	5 x 10	140x270x66 mm	blue	1 piece
079.08.015L	15 ml	50	5 x 10	140x270x66 mm	dark blue	1 piece
079.08.050B	50 ml	25	5 x 5	200x200x70 mm	blue	1 piece
079.08.050L	50 ml	25	5 x 5	200x200x70 mm	dark blue	1 piece



"Hedgehog" designed cross formed tube supports enable uniform aligning of tubes in positions firmly.



The interlocking design of the racks makes them ideal for creating a user friendly workstation.





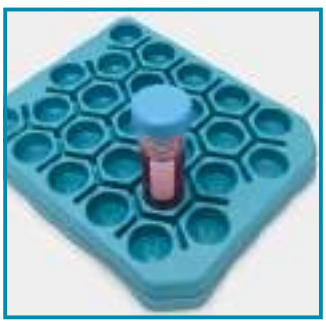
Different color options offer visual sorting and organising of different samples.



TUBE RACKS - *"for 15 & 50 ml conical bottom centrifuge tubes" - "push & hold"*

- Manufactured from high grade polypropylene for safe holding and carrying conical bottom centrifuge tubes.
- Resistant to most acids, bases, and many commonly used solvents. Guarantees high temperature resistance between -20°C to +121°C.
- Uniquely designed to carry 25 tubes in 5 x 5 array tube compartments for holding the tubes in their position firmly.
- Very easy to use; Just press the tubes slightly into the tube compartments and leave.
- Different color options offer visual sorting and organising of different samples.
- Empty racks are easily stackable for reducing storage space.
- **Alternative 2 racks:** **Racks for 15 ml tubes** **Racks for 50 ml tubes**
- Alphanumerical index on tube rows enables easy identification of tube positions.

catalogue number	for tubes	well quantity	tube array	L x W x H	rack color	pack quantity
078.06.015B	15 ml	25	5 x 5	120x150x32 mm	blue	1 piece
078.06.015L	15 ml	25	5 x 5	120x150x32 mm	dark blue	1 piece
078.06.050B	50 ml	25	5 x 5	190x230x35 mm	blue	1 piece
078.06.050L	50 ml	25	5 x 5	190x230x35 mm	dark blue	1 piece



Designed to carry 25 tubes in 5 x 5 array tube compartments.



Unique designed tube compartments hold the tube in their position firmly.



Racks are easily stackable when empty for reducing storage space.

Different color offers visual sorting and organising of different samples.





TUBE BOX - *"for 15 & 50 ml conical bottom centrifuge tubes" - "polypropylene"*

- Manufactured from high grade polypropylene for safe holding and carrying conical bottom centrifuge tubes.
- Resistant to most acids, bases, and many commonly used solvents.
- Guarantees high temperature resistance between -20°C to +121°C.
- Deep tube well grids securely hold the tubes and gurantee upright and stable positioning of tubes.
- If necessary box bottom part can be filled with ice and can be used as a temporary low temperature workstation.
- Clear press- on lid enables easy identification of box content in 4 angles and protects the tubes from dust, moisture and other enviromental effects.
- Alphanumerical index on tube rows enables easy identification of tube positions.
- Different color options offer visual sorting and organising of different samples.

catalogue number	lid type	for tubes	well quantity	tube array	L x W x H	rack color	pack quantity
078.07.015B	press on	15 ml	36	6 x 6	140x140x130 mm	blue	1 piece
078.07.015P	press on	15 ml	36	6 x 6	140x140x130 mm	purple	1 piece
078.07.015R	press on	15 ml	36	6 x 6	140x140x130 mm	ruby	1 piece
078.07.050B	press on	50 ml	16	4 x 4	140x140x130 mm	blue	1 piece
078.07.050P	press on	50 ml	16	4 x 4	140x140x130 mm	purple	1 piece
078.07.050R	press on	50 ml	16	4 x 4	140x140x130 mm	ruby	1 piece



Different color options offer visual sorting and organising of different samples.



Clear press-on lid protects the tubes from dust, moisture and other enviromental effects.



Alphanumerical index on tube rows enables easy and fast identification of tube positions.



Box bottom part can be filled with ice and can be used as a temporary low temperature workstation.



TUBE BOX - *"for 15 & 50 ml conical bottom centrifuge tubes" - "cardboard"*

- Manufactured from freze resistant, water repellent, durable cardboard covered with superior quality chromated paper coating.
- Special moisture repellent coating protects box interior from the effects of liquid nitrogen or condensation from refrigerators.
- Sized to fit all standard steel and polycarbonate freezer racks.
- Chemically resistant to alcohols and mild organic solvents. Offers temperature resistance between -196°C to +121°C.
- Alphanumerical index on the lid for identification of tube positions.
- Write on area at the side wall and the lid provides a convenient area for special notes.
- Different color options offer visual sorting and organising of different samples.
- **Alternative 2 boxes:**
  - **Boxes with press-on lid**
  - **Boxes with hinged lid.**
- Press on lids perfectly fit to the box body provides a safe and tight closure.
- Protects the box interior from dust, moisture and other enviromental effects.
- Hinged lids also perfectly fit to the box body provides a safe and tight closure. Since safely attached to the box body with screws avoids the risk of lost during usage.

catalogue number	lid type	for tubes	well quantity	tube array	box L x W x H	box color	pack quantity
078.20.015W	press on	15 ml	36	6 x 6	130x130x125 mm	white	1 piece
078.21.015W	hinged	15 ml	36	6 x 6	130x130x125 mm	white	1 piece
078.21.015B	hinged	15 ml	36	6 x 6	130x130x125 mm	blue	1 piece
078.21.015Y	hinged	15 ml	36	6 x 6	130x130x125 mm	yellow	1 piece
078.21.015G	hinged	15 ml	36	6 x 6	130x130x125 mm	green	1 piece
078.21.015P	hinged	15 ml	36	6 x 6	130x130x125 mm	pink	1 piece
078.20.050W	press on	50 ml	16	4 x 4	150x150x125 mm	white	1 piece
078.21.050W	hinged	50 ml	16	4 x 4	150x150x125 mm	white	1 piece
078.21.050B	hinged	50 ml	16	4 x 4	150x150x125 mm	blue	1 piece
078.21.050Y	hinged	50 ml	16	4 x 4	150x150x125 mm	yellow	1 piece
078.21.050G	hinged	50 ml	16	4 x 4	150x150x125 mm	green	1 piece
078.21.050P	hinged	50 ml	16	4 x 4	150x150x125 mm	pink	1 piece



Press on lids perfectly fit to the box body provides a safe and tight closure. Protects the box interior from dust, moisture and other enviromental effects.



Hinged lids also perfectly fit to the box body provides a safe and tight closure. Since safely attached to the box body with screws avoids the risk of lost during usage.





TUBE RACKS - *"foldable"*

- Manufactured from modified polypropylene which enables the racks to be used in water baths without floating
- Resistant to most acids , bases, and many commonly used solvents. Guarantees high temperature resistance between -20°C to +121°C.
- Raised tube sockets guarantee firm hold of the tubes at their exact positions.
- The alpha numeric grid reference on the top tier of the rack ensures an easy tube location and sample positioning.
- Racks are supplied assembled and folded. Can be ready for use in few seconds with a simple action.
- These racks can be refolded after use for reducing storage area.

catalogue number	tube volume	tube quantity	tube array	pack quantity
079.03.003	15 ml	50	5 x 10	1 piece
079.03.005	50 ml	26	4 x 6 / 7	1 piece
079.03.006	15 & 50 ml	21 & 12	assorted	1 piece



Raised tube supports strongly hold the tubes in their position.

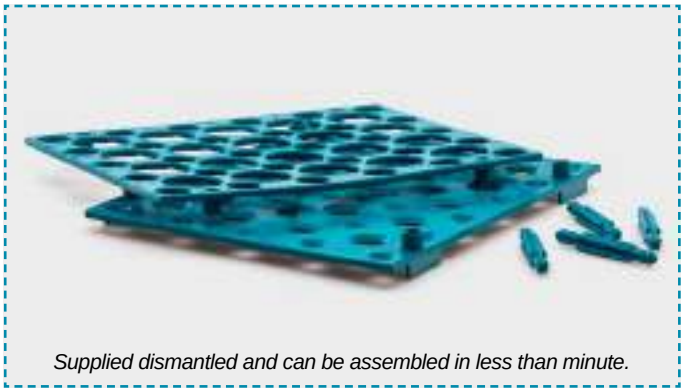
Tube rack can be folded for space saving solution.



TUBE RACK - *"snapable"*

- Manufactured from high grade POM for safe holding and carrying conical bottom centrifuge tubes.
- Uniquely designed to carry 30 x 15 ml and 20 x 50 ml centrifuge tubes simultaneously.
- Rack is supplied already disassembled. Unique and practical "snapping" system allows the rack "ready to use" in few seconds.
- Alphanumerical index on the lid enables easy identification of tube positions.

catalogue number	tube volume	tube quantity	tube array	pack quantity
079.04.001	15 & 50 ml	30 & 20	assorted	1 piece



Supplied dismantled and can be assembled in less than minute.



Holes at the bottom plate guarantee firm hold of tubes in their position.



TUBE RACK - *"4 sides"*

- Manufactured from modified polypropylene which enables the racks to be used in water baths without floating.
- 4 sides offer 4 different tube holding alternative.
  - Side 1: holds 8 x 30 mm dia. tube with 2 x 4 array
  - Side 2: holds 20 x 20 mm dia. tube with 4 x 5 array
  - Side 3: holds 24 x 17 mm dia. tube with 3 x 8 array
  - Side 4: holds 40 x 12 mm dia. tube with 4 x 10 array
- Racks are designed with an interlocking system for connection to each other in order to form multi rack rows.
- Alphanumerical index on tube rows enables easy identification of tube positions.

catalogue number	tube diameter	tube volume	tube quantity	tube array	pack quantity
080.01.001	30 mm	50 ml	8	2 x 4	1 piece
	20 mm		20	4 x 5	
	17 mm	15 ml	24	3 x 8	
	12 mm		40	4 x 10	



Side (1); holds 8 pieces of 30 mm dia. tubes



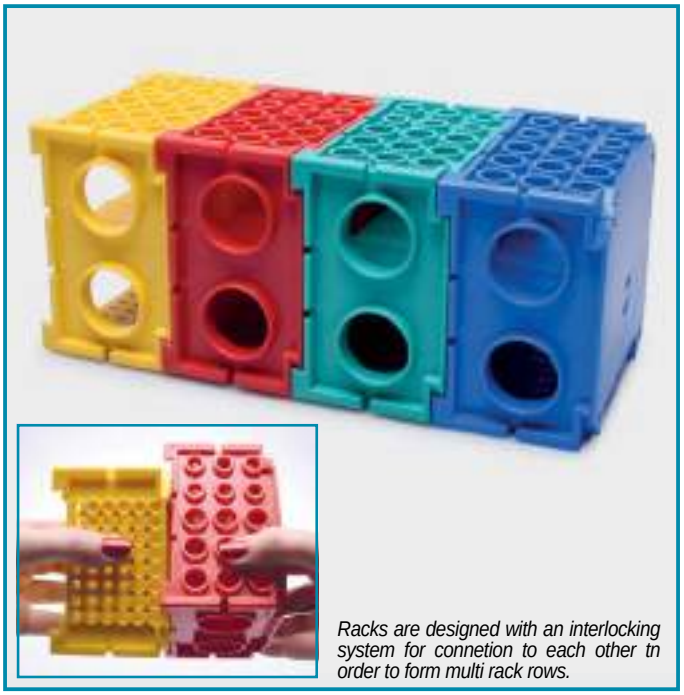
Side (2); holds 20 pieces of 20 mm dia. tubes



Side (3); holds 24 pieces of 17 mm dia. tubes



Side (4); holds 40 pieces of 12 mm dia. tubes



Racks are designed with an interlocking system for connetion to each other tn order to form multi rack rows.

TUBE RACK - *"4 sides"*

- Manufactured from modified polypropylene which enables the racks to be used in water baths without floating.
- 4 sides offer 5 different tube holding alternative.
  - Side 1: holds 48 x 5 mm dia. tube with 6 x 8 array
  - Side 2: holds 9 x 12 mm dia. tube with 3 x 3 array and 6 x 8 mm dia. tube with 2 x 3 array
  - Side 3: holds 8 x 17 mm dia. tube with 2 x 4 array
  - Side 4: holds 2 x 30 mm dia. tube with 2 x 1 array
- Racks are designed with an interlocking system for connection to each other in order to form multi-rack rows.
- Alphanumerical index on tube rows enables easy identification of tube positions.

catalogue number	tube diameter	tube volume	tube quantity	tube array	pack quantity
080.02.001	5 mm		48	6 x 8	set of 4
	8 mm		6	2 x 3	
	12 mm	15 ml	9	3 x 3	
	17 mm	50 ml	8	2 x 4	
	30 mm		2	2 x 1	



Side (1); holds 48 pieces of 5 mm dia. tubes



Side (2); holds 9 x12 mm dia. and 6x8 mm dia. tubes



Side (3); holds 8 pieces of 17 mm dia. tubes

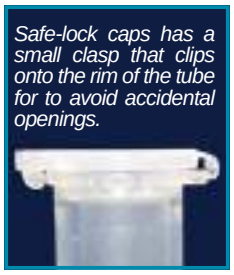


Side (4); holds 2 pieces of 30 mm dia. tubes









Safe-lock caps has a small clasp that clips onto the rim of the tube for to avoid accidental openings.

CENTRIFUGE TUBES - *"micro" - "with flat cap"*

- Manufactured from ultra clear polyropylene with flat caps that ensure smooth opening and closing with one hand. Once closed they guarantee leak-proof closure
- **Alternative 2 shapes:**
  - **Conical bottom tubes which need a tube rack**
  - **Skirted tubes which can self stand on benches.**
- Skirted tubes can self stand on laboratory benches without the need of any tube rack.
- Ultra rugged tube wall guarantees resistance to high centrifugal forces up to 20.000 RCF. Optimum tube design offers micro pestle compatibility.
- Reinforced tube bottom ensures added protection against deformation and leakage. Conical bottom form guarantees excellent fit to allmost all centrifuge rotors. Higly polished interior wall guarantees low liquid retention and ensures minimum sample loss.
- Autoclavable at 121°C for 20 minutes. Caps should not be kept closed during autoclaving process. Otherwise tubes can be deformed.
- **Alternative 2 tubes:**
  - **aseptic tubes**
  - **sterile tubes**
- Aseptic tubes are manufactured in germ-free , class 10.000 sterile production areas with extreme sterility control.
- Sterile tubes are manufactured in germ-free, class 10.000 sterile production areas and then resterilised by gamma irradiation. Supplied with a certificate as a guarantee of "DNase, RNase & pyrogen free" product.
- Improved cap design ensures smooth opening and closing with one hand. Inner design ensures hermetical and leak-proof closure. Cap can be pierced easily with any syringe needle.
- Graduations on the side wall offer visual control of the filled volume. Frosted marking area on side wall enables easy marking and labelling.

tubes sterilized	tubes non sterilized	volume	skirt	pack quantity	box quantity
078.03.021	078.03.001	0.5 ml	non	500 pieces	5000 pieces
078.03.022	078.03.002	1.5 ml	non	500 pieces	5000 pieces
078.03.023	078.03.003	2.0 ml	non	500 pieces	5000 pieces
078.03.024	078.03.004	2.0 ml	yes	500 pieces	5000 pieces

CENTRIFUGE TUBES - *"micro" - "with safe-lock cap"*

- Manufactured from ultra clear polyropylene with safe lock caps that ensure smooth opening and closing with one hand.
- Once closed they guarantee leak-proof closure.
- Safe-lock caps have a small clasp that clips onto the rim of the tube preventing accidental openings specially during applications where heating is required.
- **Alternative 2 tubes:**
  - **aseptic tubes**
  - **sterile tubes**
- All other tehcnical specifications are identical with flat cap tubes.

tubes sterilized	tubes non sterilized	volume	pack quantity	box quantity
078.05.022	078.05.002	1.5 ml	500 pieces	5000 pieces
078.05.025	078.05.005	5.0 ml	200 pieces	2000 pieces

TUBE ADAPTER - *"for 5 ml microtubes"*



- Manufactured from polypropylene.
- Perfectly fits to the bottom part of the 15 ml centrifuge tube rotors.
- They provide the practical usage of the 5 ml tube in a 15 ml rotor.

catalogue number	pack quantity
078.05.105	8 pieces

PESTLES - *"for micro tubes" - "disposable"*

- Manufactured from polypropylene with two pestle ends with round tip.
- Excellent for resuspending bacterial cells, precipitates of nucleic acids or proteins and homogenizing samples in a microcentrifuge tube.
- The two identical round tipped ends perfectly fit to the interior of 1,5 & 2,0 ml micro tubes.



Both ends perfectly fits to the interior of 1,5 & 2,0 ml micro tubes.



catalogue number	length	recommended for	pack quantity
078.08.120	75 mm	1,5 & 2,0 ml tubes	10 pieces

PESTLES - *"for micro tubes" - "re-usable"*

- Consists of a stainless steel shaft of 150 mm length and two pestle ends with round tip manufactured from PTFE. Autoclavable and reusable.
- Excellent for resuspending bacterial cells, precipitates of nucleic acids or proteins and homogenizing samples in a microcentrifuge tube.
- One pestle end fits perfectly to 1,5 ml micro tube bottom and the other pestle end fits to 0,5 ml tube bottom.



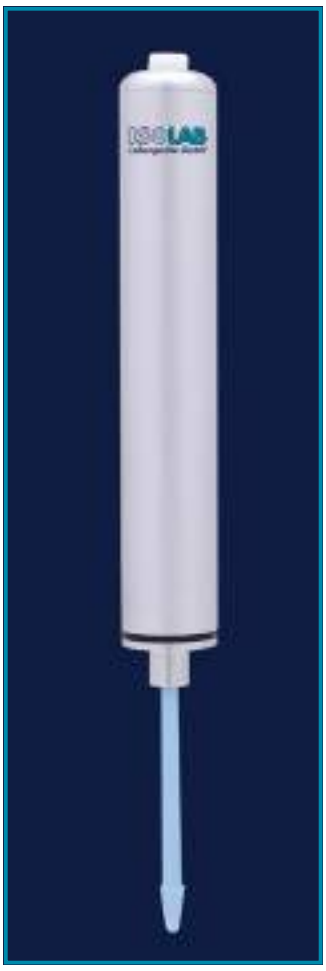
One end fits perfectly to 0,5 ml tube bottom



Other end fits perfectly to 1,5 ml tube bottom



catalogue number	length	recommended for	pack quantity
078.18.001	150 mm	0,5 & 1,5 ml tubes	1 piece



TISSUE GRINDER - *"for microcentrifuge tubes"*

- Excellent tool for sample preperations, for resuspending bacterial cells, precipitates of nucleic acids or proteins and homogenizing samples in a microcentrifuge tube.
- Also ideal for stirring and mixing liquid samples in small size tubes.
- Operates with 3,7V lithium battery with a speed of 1.200 RPM.
- Very easy to use. Sturdy construction guarantees very long life span.
- **Disposable - polypropylene pestle.**
- **Alternative 2 pestle types:**
- **Reusable stainless steel pestle.**
- Polypropylene disposable pestles are delivered either as "non-sterile" or as "gamma-sterile".
- Stainless steel reusable pestle heads are autoclavable and can be used for a very long time.
- Tissue grinder is supplied without pestles. Pestles should be ordered separately.

catalogue number	product descriptions	pack quantity
078.19.001	tissue grinder	1 piece
078.17.001	stirring rods - disposable - non-sterile	50 pieces
078.17.002	stirring rods - disposable - sterile	50 pieces
078.17.003	stirring rods - reusable - st. steel	1 piece





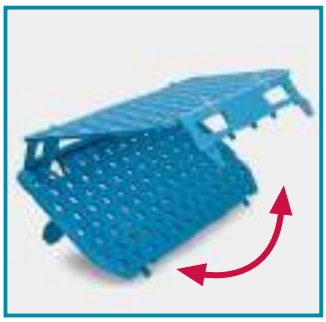
MICROTUBE RACKS - *"foldable"*

- Manufactured from autoclavable polypropylene with high mechanical strength.
- Resistant to most acids, bases and many commonly used solvents. Guarantees high temperature resistance between -20°C to +121°C.
- After replacement of the tubes racks can be stacked on top of each other for space saving solution.
- Alphanumerical index on tube rows enables easy identification of tube positions.
- Marking areas on wall sides enable easy marking and labelling.
- **Alternative 2 racks:** **With 100 well for 1,5 & 2,0 ml tubes** **With 42 well for 5,0 ml tubes**
- Supplied dismantled as a sheet and can easily be assembled in few seconds.
- Also can be dismantled in few seconds and forms a flat layer for safe and efficient storage purpose.
- Different color options offer visual sorting and organising of different samples.

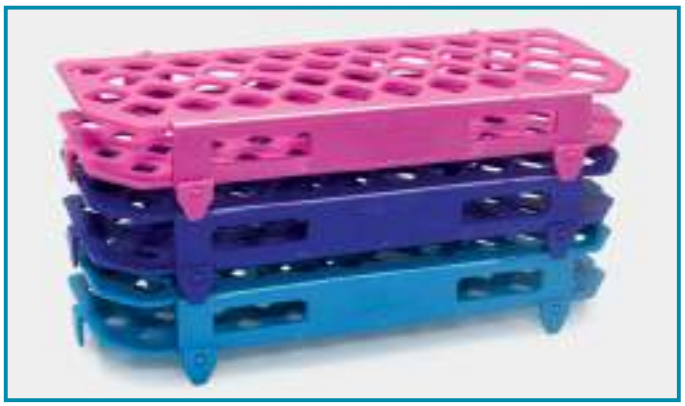
racks for 1,5 & 2,0 ml	well quantity	racks for 5,0 ml	well quantity	rack L x W x H	rack color	pack quantity
080.01.005B	100	080.01.006B	42	110x260x45 mm	blue	1 piece
080.01.005P	100	080.01.006P	42	110x260x45 mm	purple	1 piece
080.01.005R	100	080.01.006R	42	110x260x45 mm	ruby	1 piece



Supplied dismantled as a sheet and can easily be assembled in few seconds.



Also can be dismantled in few seconds and forms a flat layer for safe and efficient storage purpose.



Different color options offer visual sorting and organising of different samples.

After replacement of the tubes racks can be stacked on top of each other for space saving solution.



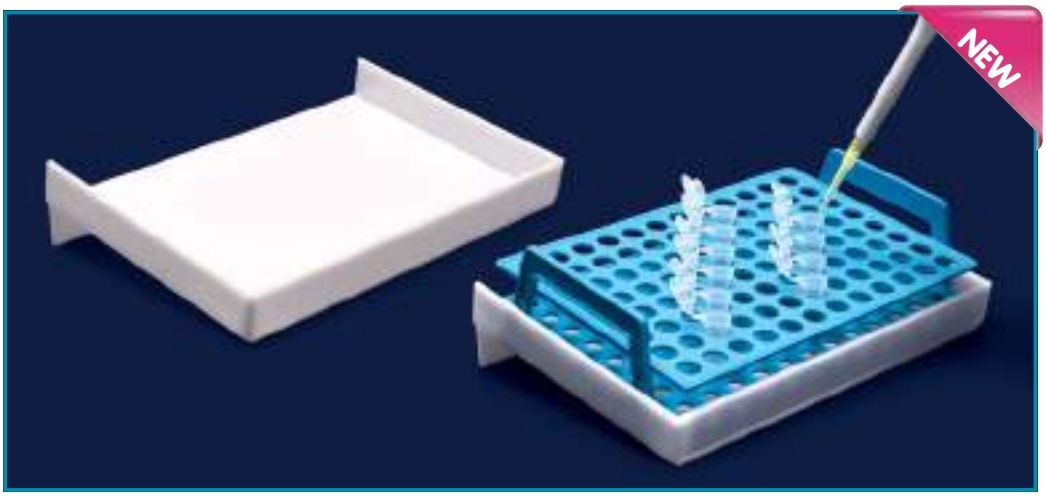
MICROTUBE RACKS - *"monoblock"*

- Manufactured from autoclavable polypropylene with high mechanical strength.
- Resistant to most acids, bases and many commonly used solvents. Guarantees high temperature resistance between -20°C to +121°C.
- Can be used with a unique base support tray that provides alternative inclined position for the rack.
- According to the wish rack can be used horizontally or with 30 degree angle providing easy filling option of the tubes.
- After replacement of the tubes racks can be stacked on top of each other for space saving solution.
- Alphanumerical index on tube rows enables easy identification of tube positions.
- Marking areas on wall sides enable easy marking and labelling.



Color options offer visual sorting and organising of different samples.

catalogue number	for tubes	well quantity	tube array	rack L x W x H	rack color	pack quantity
080.01.004B	1,5 / 2,0 ml	96	8 x 12	205x135x55 mm	blue	1 piece
080.01.004P	1,5 / 2,0 ml	96	8 x 12	205x135x55 mm	purple	1 piece
080.01.004R	1,5 / 2,0 ml	96	8 x 12	205x135x55 mm	ruby	1 piece
080.01.007B	5,0 ml	48	6 x 8	205x135x70 mm	blue	1 piece
080.01.007P	5,0 ml	48	6 x 8	205x135x70 mm	purple	1 piece
080.01.007R	5,0 ml	48	6 x 8	205x135x70 mm	ruby	1 piece



BASE SUPPORT

- Base support is manufactured from acrylic with 30° inclination.
- When placed under the tube rack with the help of 30 degree inclination this support offers easy filling options of the tubes specially when you are sitting.

catalogue number	color	pack quantity
080.01.101	white	1 piece

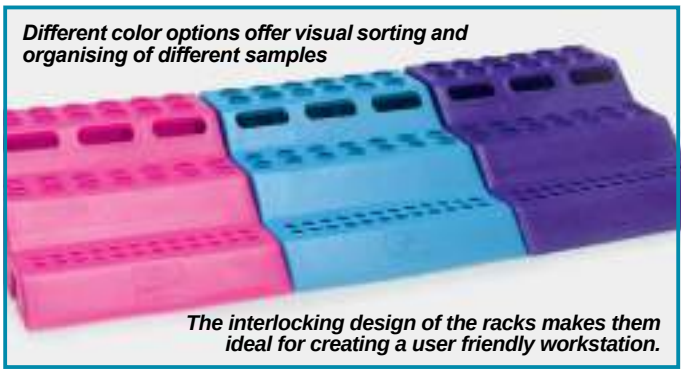




RACKS - *"for micro tubes" - "3 tier"*

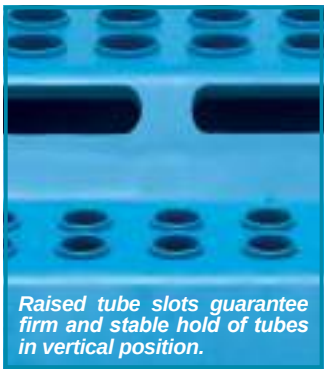
- Manufactured from high grade polypropylene for safe holding and carrying of micro tubes.
- Resistant to most acids, bases and many commonly used solvents. Guarantees high temperature resistance between -20°C to +121°C.
- The interlocking design of the racks makes them ideal for creating a user friendly workstation.
- Raised tube slots guarantee firm and stable hold of tubes in vertical position.
- Alphanumerical index on tube rows enables easy identification of tube positions.
- Marking areas on wall sides enable easy marking and labelling.
- Different color options offer visual sorting and organising of different samples.
- Rack for 0,2 ml and 0,5 ml and 1,5 ml tubes has a unique design for to carry 3 different size micro tubes on each tier:
- Bottom row carries 24 x 0,2 ml (2 x 12 array) micro tubes.
- Middle row carries 14 x 0,5 ml (2 x 7 array) micro tubes.
- Upper row carries 12 x 1,5 ml (2 x 6 array) micro tubes.

catalogue number	rack dimensions	rack color	pack quantity
080.01.003B	165x125x60 mm	blue	1 piece
080.01.003P	165x125x60 mm	purple	1 piece
080.01.003R	165x125x60 mm	ruby	1 piece



Different color options offer visual sorting and organising of different samples

The interlocking design of the racks makes them ideal for creating a user friendly workstation.



Raised tube slots guarantee firm and stable hold of tubes in vertical position.



Alphanumerical index on tube rows enables easy identification of tube positions.



RACKS - *"for micro tubes" - "double side"*

- Manufactured from high grade polypropylene for safe holding and carrying of micro tubes.
- Resistant to most acids, bases and many commonly used solvents. Guarantees high temperature resistance between -20°C to +121°C.
- Rack has two sides and each side accomodates different size and combination of microcentrifuge tubes.
- Clear box lid enables easy identification of rack content and protects the tubes from dust, moisture and other effects.
- Alphanumerical index on tube rows enables easy identification of tube positions.
- Marking areas on wall sides and the lid top enable easy marking and labelling.
- Different color options offer visual sorting and organising of different samples.
- Racks can be stacked on top of each other for space saving.
- Uniquely designed to carry different size micro tubes on both sides.
  - **Upper side:** carries 96 x 1,5 ml (6x16 array) micro tubes
  - **Reverse side:** carries 48x0,5 ml (6x8 array) and 96 x 0,2 ml (8x12 array) micro tubes.

catalogue number	dimensions	rack color	pack quantity
080.06.002B	290x110x60 mm	blue	1 piece
080.06.002P	290x110x60 mm	purple	1 piece
080.06.002R	290x110x60 mm	ruby	1 piece



Clear box lid enables easy identification of box content and protects the tubes from environmental effects.

Racks can be stacked on top of each other for space saving.



Different color options offer visual sorting and organising of different samples



CRYO TUBES - *"sterile"*

- Designed for the storage and conservation of biological material, human and animal cells at very low temperatures in the gas phase of liquid nitrogene or in cryogenic freezers.
- Manufactured from ultra clear, polyropylene by fully automatic machines. Higly polished interior wall guarantees low liquid retention and ensures minimum sample loss.
- Autoclavable at 121°C for 20 minutes. Caps should not be kept closed during autoclaving process. Otherwise tubes can be deformed.
- Cryo tubes are manufactured in germ-free, class 10.000 sterile production areas and then resterilised by gamma irradiation.
- Tubes are supplied with a certificate as a guarantee of "DNase, RNase & pyrogen free" product.
- Since both cap and tube are made of same material with same coefficient of expansion secure seal at all temperatures is guaranteed.
- Caps are featured with cavities for different colored cap inserts which enable easy identification of tube contents.
- Cap inner design ensures hermetical and leak-proof closure Silicone washer inside the cap ensures positive sealing at any temperature and prevents leakege.
- Caps can be opened and closed with single hand. A 3/4 turn of the cap will be sufficient for full closure.
- Unique foot design enables free standing option. Foot design allows the tube to be fixed at the cryo vial racks. Tube caps can be opened by single hand.

- **Alternative 2 tubes:**
  - **Tubes with external thread caps**
  - **Tubes with internal thread caps**



cryo tubes with external thread	tube volume	tube height	tube diameter	cryo tubes with internal thread	tube volume	tube height	tube diameter	packing specifications
091.11.102	2.0 ml	48,6 mm	12,4 mm	091.21.102	2.0 ml	48,6 mm	12,4 mm	100 pcs / bag - 10 bag / ctn
091.11.105	5.0 ml	90,4 mm	12,4 mm	091.21.105	4.0 ml	90,4 mm	12,4 mm	100 pcs / bag - 10 bag / ctn



Unique star-base foot design enables free standing option.

Base design allows the tube to be fixed at the cryo vial racks. Tube caps can be opened by single hand without the need of picking up the tubes.



Printed marking area on side wall enables easy marking and labelling.



Silicone washer ensures positive sealing and prevents leakege.



Graduations on the side wall offer visual control of the filled volume.



CAP INSERTS

➤ Caps are featured with cavities for different colored cap inserts which enable easy identification of tube contents.

➤ Manufactured from polypropylene with different colors for easy identification of cryo tubes.

➤ They fit precisely into the caps by slight pressing. They can be dismantled easily.

catalogue number	cap inserts disc color	pack quantity
091.15.001	white	100 pieces
091.15.002	blue	100 pieces
091.15.003	yellow	100 pieces
091.15.004	red	100 pieces
091.15.005	green	100 pieces

CRYO TUBE CANES - *"polycarbonate"*



➤ Made from polycarbonate for holding cryo tubes. Ideal tool to insert the cryo tubes into cryo freezer storage or into dewar flasks.

➤ With their total length of 310 mm they can carry 6 pieces 2,0 ml and 3 pieces 5,0 ml cryo tubes at a row.

catalogue number	pack quantity
092.35.003	12 pieces





LABELS - *"for cryo tubes"*

➤ Manufactured from polyfiber grade flexible paper with acrylic resin adhesive back. This unique combination expands and retracts together with temperature fluctuations and guarantees always a strong adhesive bond.

• Chemically inert, resists to water, moisture and most organic solvents and caustic agents. Can be used between -196°C to + 80°C temperature.

Other technical specifications can be seen at catalogue page no 123.

GLOVES - *"cold resistant"*

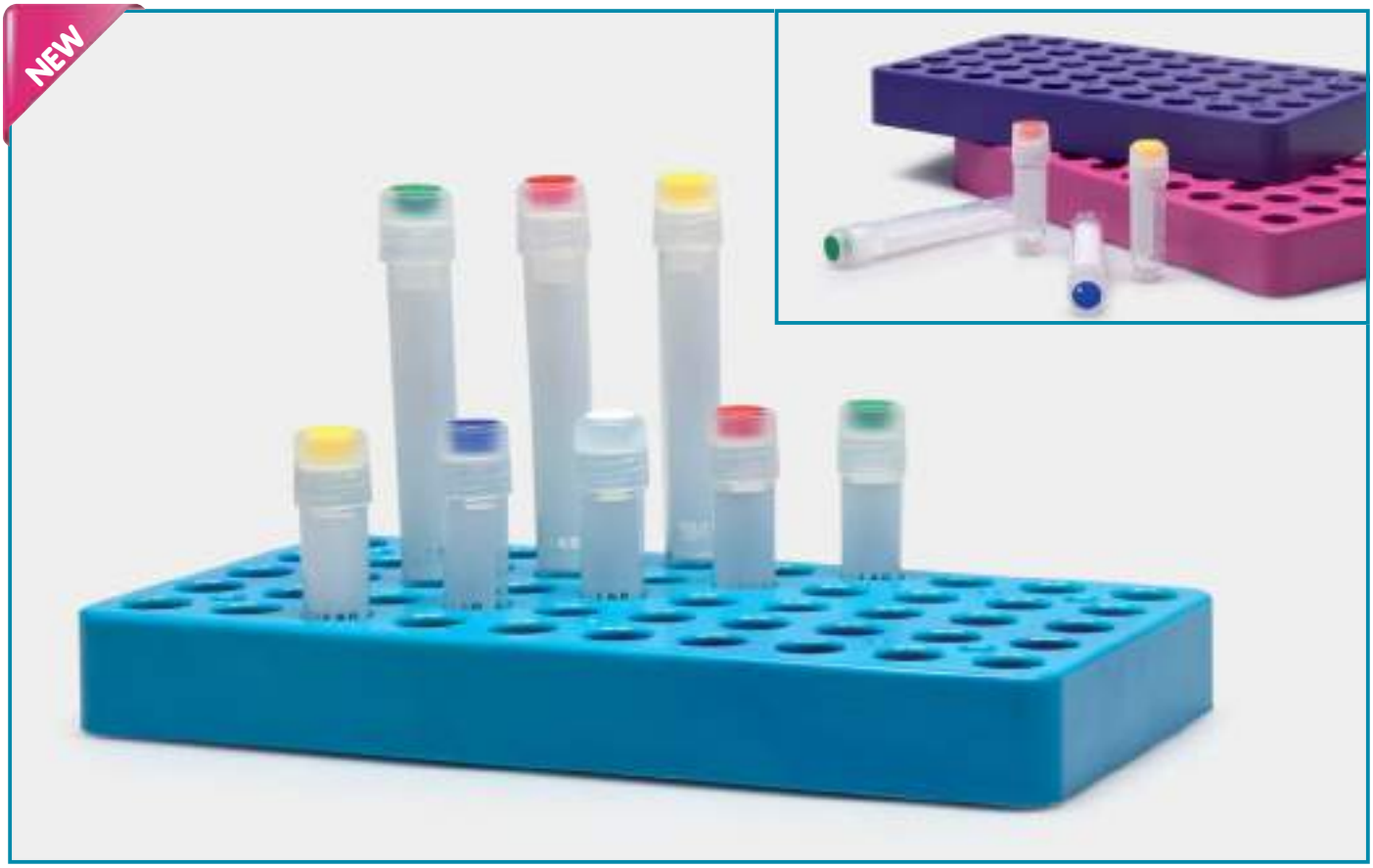
➤ Excellent gloves to work with coolants, cryo vials and with dry ice.

• Offers full protection of hand even at -160°C ultra low temperature enviroment.

• Even after working extended hours they still stay flexible and guarantee the best comfort for hands.

Other technical specifications can be seen at catalogue page no 216.

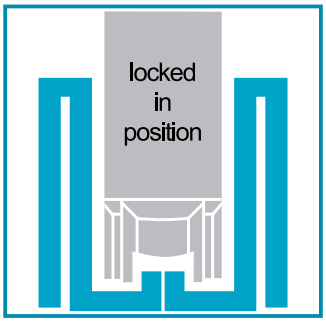
NEW



CRYO TUBE WORK STATION - *"50 well"*

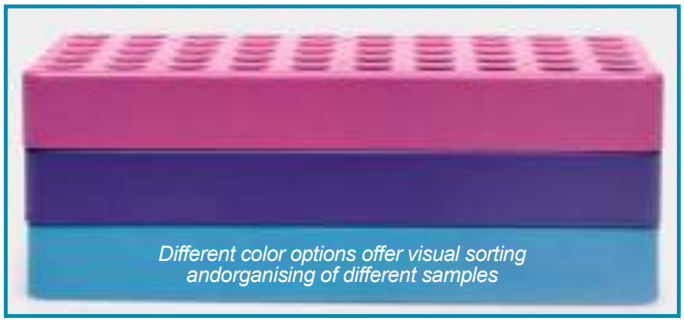
- Manufactured from autoclavable polycarbonate with high mechanical strength.
- Resistant to most acids , bases, and many commonly used solvents. Guarantees high temperature resistance between -196°C to +121°C.
- Uniquely designed to carry 50 pieces of 2,0 ml & 5,0 ml volume cryo tubes in 10 x 5 array.
- These racks allow easy one handed opening and closing of tubes thanks to an innovative locking system.
- The locking system at the well bottoms ensures that tubes will securely lock in each position and will not return in their axis.
- Alphanumerical index on tube rows enables easy identification of tube positions.
- Featured with a frosted write on and labelling area at the front side.
- Different color options offer visual sorting and organising of different samples

catalogue number	for tubes	well quantity	tube array	L x W x H	rack color	pack quantity
092.01.001B	2,0 - 5,0 ml	50	10 x 5	195x101x24 mm	blue	1 piece
092.01.001P	2,0 - 5,0 ml	50	10 x 5	195x101x24 mm	purple	1 piece
092.01.001R	2,0 - 5,0 ml	50	10 x 5	195x101x24 mm	ruby	1 piece



These racks allow easy one handed opening and closing of tubes thanks to an innovative locking system.

The locking system at the well bottoms ensures that tubes will securely lock in each position and will not return in their axis.



Different color options offer visual sorting andorganising of different samples



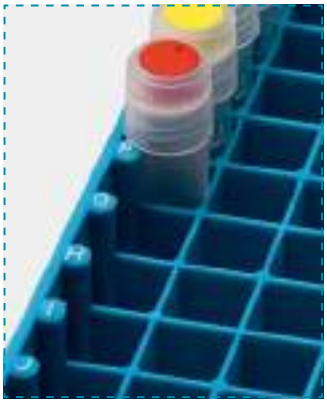
TUBE BOX - *"100 well" - "hinged lid"*

- Manufactured from autoclavable polypropylene with high mechanical strength.
- Resistant to most acids, bases, and many commonly used solvents. Guarantees high temperature resistance between -20°C to +121°C.
- Uniquely designed to carry 100 cryo tubes in 10 x 10 array.
- Hinged lid with built-in stop allows easy one-handed access.
- Featured with a frosted write on area at the front side of the lid.
- Clear box lid enables easy identification of box content and protects the tubes from dust, moisture and other enviromental effects.
- Moulded frames at the corners of the tube boxes enable perfect stacking on top each other without sliding.
- Alphanumerical index both on tube rows and the lid enables easy identification of tube positions.
- Different color options offer visual sorting and organising of different samples.

catalogue number	lid type	for vials diameter	well quantity	vial array	L x W x H	rack color	pack quantity
080.01.002B	hinged	11,6 mm	100	10 x 10	141x151x53 mm	blue	1 piece
080.01.002P	hinged	11,6 mm	100	10 x 10	141x151x53 mm	purple	1 piece
080.01.002R	hinged	11,6 mm	100	10 x 10	141x151x53 mm	ruby	1 piece



Box lid enables easy identification of box content and protects the tubes from environmental effects.



Alphanumerical index both on tube rows and the lid enables easy identification of tube positions.



Frames at the corners of the tube boxes enable perfect stacking on top each other without sliding.



Different color options offer visual sorting and organising of different samples.



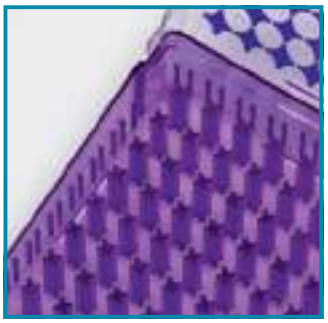
CRYO TUBE BOXES - *"81 well" - "polycarbonate"*

- Manufactured from polycarbonate with high mechanical strength and high temperature resistance between -196°C to +121°C.
- Uniquely designed to carry 81 pieces micro or cryo tubes in 9 x 9 array.
- "Hedgehog" designed tube compartments hold the tube in their position firmly. They fit all steel and polycarbonate freezer racks.
- Unique design with vent and drainage holes guarantees best, efficient air circulation.
- Forward slope base ensures quick visual orientation. Easily stackable for reducing storage space.
- Hinged lid with built-in stop allows very easy access to tubes.
- Clear box lid enables easy identification of box content and protects the tubes from dust, moisture and other enviromental effects.
- Vent and drainage holes at the lid and the base guarantee the best air circulation.
- Alphanumerical index both on tube rows and the lid enables easy identification of tube positions.
- Featured with a frosted write on area at the front side of the lid.
- Box is supplied together with a disposable forceps - made from ABS – with fine end for easy removal of tubes.
- Different color options offer visual sorting and organising of different samples.

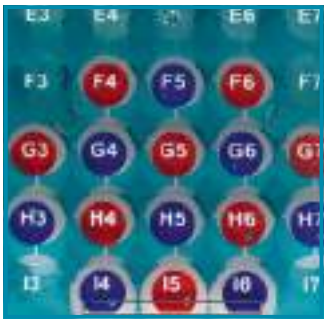
catalogue number	lid type	for tubes	well quantity	tube array	L x W x H	box color	pack quantity
093.01.001G	hinged	2,0 ml	81	9 x 9	133x133x53 mm	green	1 piece
093.01.001P	hinged	2,0 ml	81	9 x 9	133x133x53 mm	purple	1 piece
093.01.001R	hinged	2,0 ml	81	9 x 9	133x133x53 mm	ruby	1 piece
093.01.002B	hinged	5,0 ml	81	9 x 9	133x133x96 mm	blue	1 piece



Vent and drainage holes at the lid and the base guarantee the best air circulation.



"Hedgehog" designed cross formed tube supports enable uniform aligning of tubes in positions firmly.



Alphanumerical index both on tube rows and the lid enables easy identification of tube positions.



Box is supplied together with a disposable forceps for easy removal of tubes.



CRYO TUBE BOXES - *"81 well" - "cardboard"*

- Manufactured from freze resistant, water repellent, durable cardboard covered with superior quality chromated paper coating.
- Special moisture repellent coating protects box interior from the effects of liquid nitrogen or condensation from refrigerators.
- Chemically resistant to alcohols and mild organic solvents. Offers temperature resistance between -196°C to +121°C.
- Sized to fit all standard steel and polycarbonate freezer racks.
- Designed to carry 81 pieces micro or cryo tubes in 9 x 9 array.
- Index on the lid enables easy identification of tube positions.
- Write on area at the side wall and the lid provides a convenient area for special notes.
- Different color options offer visual sorting and organising of different samples.
- **Alternative 2 box:**
  - **Boxes with press-on lid**
  - **Boxes with hinged lid.**
- Press on lids perfectly fit to the box body provides a safe and tight closure.
- Protects the box interior from dust, moisture and other enviromental effects.
- Hinged lids also perfectly fit to the box body provides a safe and tight closure.
- Since safely attached to the box body with screws avoids the risk of lost during usage.

catalogue number	lid type	for tubes	well quantity	tube array	L x W x H	box color	pack quantity
092.22.101W	press on	2,0 ml	81	9 x 9	135x135x50 mm	white	1 piece
092.23.101W	hinged	2,0 ml	81	9 x 9	135x135x50 mm	white	1 piece
092.23.101B	hinged	2,0 ml	81	9 x 9	135x135x50 mm	blue	1 piece
092.23.101Y	hinged	2,0 ml	81	9 x 9	135x135x50 mm	yellow	1 piece
092.23.101G	hinged	2,0 ml	81	9 x 9	135x135x50 mm	green	1 piece
092.23.101P	hinged	2,0 ml	81	9 x 9	135x135x50 mm	pink	1 piece
092.22.102W	press on	5,0 ml	81	9 x 9	135x135x95 mm	white	1 piece
092.23.102W	hinged	5,0 ml	81	9 x 9	135x135x95 mm	white	1 piece
092.23.102B	hinged	5,0 ml	81	9 x 9	135x135x95 mm	blue	1 piece



Press on lids perfectly fit to the box body provides a safe and tight closure. Protects the box interior from dust, moisture and other enviromental effects.

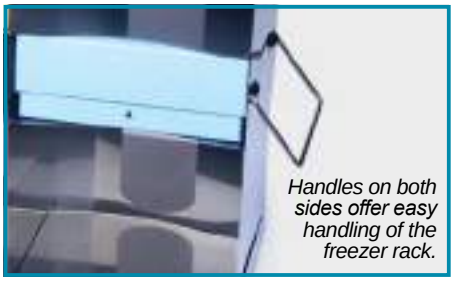


Hinged lids also perfectly fit to the box body provides a safe and tight closure. Since safely attached to the box body with screws avoids the risk of lost during usage.



FREEZER RACK - *"horizontal"*

- Manufactured from corrosion proof, easy to clean polished stainless steel.
- Specially suitable for most upright freezers.
- Featured with multi compartments suitable to carry cryo boxes with maximum 135 x 135 base dimensions.
- Alternative models with different box arrays offer possibility of storing both 2 ml and 5 ml boxes according to the chosen model.
- Handles on both sides offer easy handling of the freezer rack.



Handles on both sides offer easy handling of the freezer rack.

catalogue number	for cryo tubes	box quantity	box array	height	width	length	pack quantity
092.22.254	2 ml	20	5 x 4	140 mm	560 mm	300 mm	1 piece
092.22.244	2 ml	16	4 x 4	140 mm	560 mm	240 mm	1 piece
092.22.253	5 ml	15	5 x 3	140 mm	420 mm	510 mm	1 piece
092.22.524	5 ml	8	2 x 4	140 mm	560 mm	215 mm	1 piece

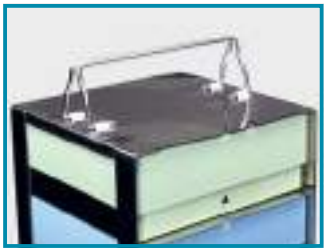
FREEZER RACK - *"st. steel" - "vertical"*



- Manufactured from corrosion proof, easy to clean polished stainless steel. Specially suitable for most vertical freezers.
- Featured with multi compartments suitable to carry boxes with maximum 135 x135 base dimensions
- Offers possibility of storing both 2 ml and 5 ml boxes according to the chosen model.



Featured with a foldable handle.

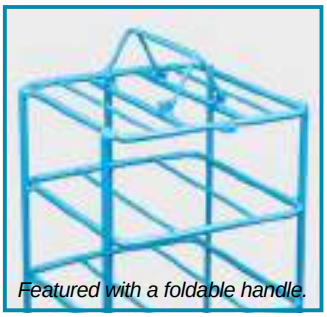


catalogue number	for cryo tubes	box quantity	box array	L x W x H	pack quantity
092.23.212	2 ml	12	12 x 1	140x140x690 mm	1 piece
092.23.210	2 ml	10	10 x 1	140x140x580 mm	1 piece
092.23.506	5 ml	6	6 x 1	140x140x620 mm	1 piece

FREEZER RACK - *"epoxy wire" - "vertical"*



- Manufactured from corrosion proof, easy to clean, epoxy coated steel wire. Specially suitable for most vertical freezers.
- Featured with multi compartments suitable to carry cryo boxes with maximum 135 x 135 base dimensions.
- Alternative models with different box arrays offer possibility of storing both 2 ml and 5 ml boxes according to the chosen model.
- Foldable handle on top offers easy handling of the freezer rack.



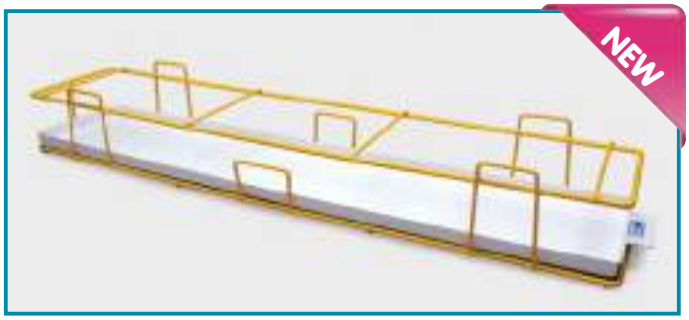
Featured with a foldable handle.

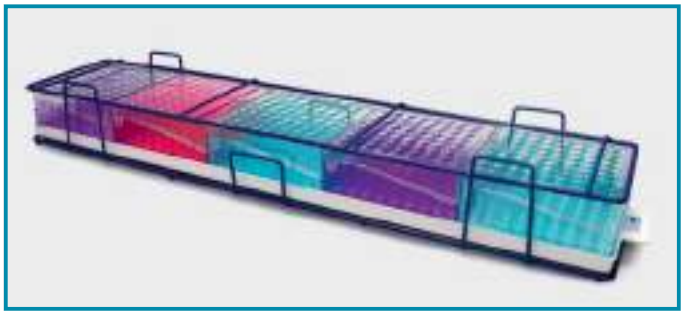
catalogue number	for cryo tubes	box quantity	box array	L x W x H	pack quantity
092.24.212W	2 ml	10	10 x 1	140x140x600 mm	1 piece
092.24.212B	2 ml	10	10 x 1	140x140x600 mm	1 piece
092.24.212L	2 ml	10	10 x 1	140x140x600 mm	1 piece
092.24.212O	2 ml	10	10 x 1	140x140x600 mm	1 piece
092.24.506B	5 ml	5	5 x 1	140x140x530 mm	1 piece

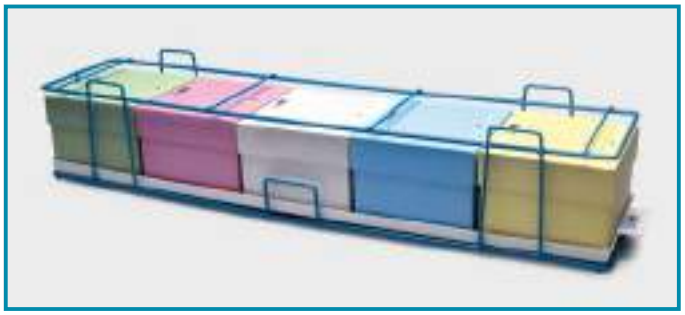
FREEZER RACK - *"modular system"*

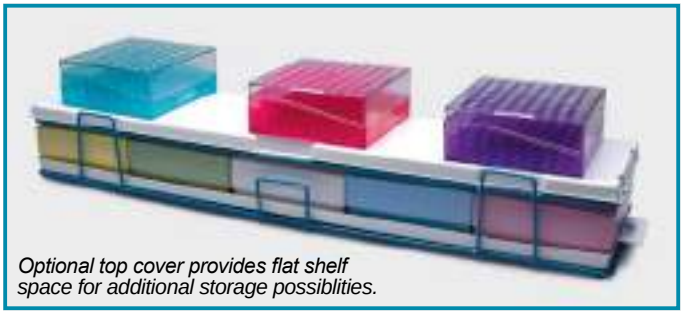
- Manufactured from corrosion proof, easy to clean, epoxy coated steel wire. Specially suitable for most horizontal and uprigt freezers.
- They are designed to carry of all size cryo boxes with maximum 135 x 135 base dimensions
- Alternative models with different box arrays offer possibility of storing both 2 ml and 5 ml boxes according to the chosen model.
- These racks can be stacked together on top of each other. Alternatively they can be linked side-by- side.
- With these unique technique they can form any configuration for both horizontal or vertical storage. So, you can buy as many as it is needed for the best solution for your freezer space.
- Featured with a pull off drawer for easy sample retrieval even from the back of the freezer. The drawer handle with a label area provides easy pull option.
- Optional top cover provides flat shelf space for additional storage possiblities.
- Different color options offer visual sorting and organising of different samples.

catalogue number	for cryo tubes	box quantity	L x W x H	pack quantity
092.25.002W	2 ml	5	140x700x70 mm	1 piece
092.25.002B	2 ml	5	140x700x70 mm	1 piece
092.25.002L	2 ml	5	140x700x70 mm	1 piece
092.25.002O	2 ml	5	140x700x70 mm	1 piece
092.25.005B	5 ml	5	140x700x135 mm	1 piece

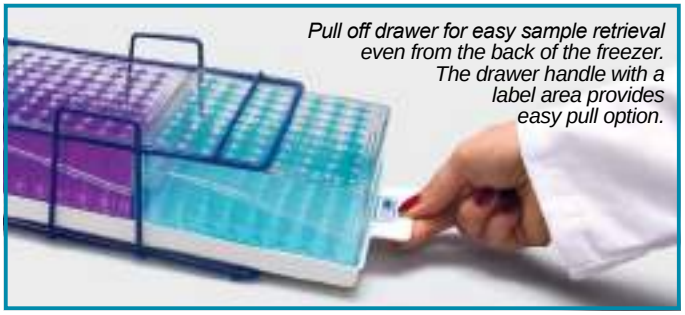








Optional top cover provides flat shelf space for additional storage possiblities.



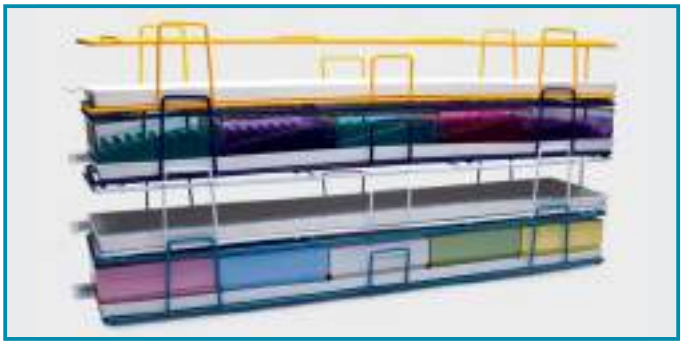
Pull off drawer for easy sample retrieval even from the back of the freezer. The drawer handle with a label area provides easy pull option.



Racks can be stacked together on top of each other. Alternatively they can be linked side-by-side.

With these unique technique they can form any configuration for both horizontal or vertical storage.

So, you can buy as many as it is needed for the best solution for your freezer space.





Different color options offer visual sorting and organising of different samples.



FREEZER BOX - *"with clear lid"*

- Ideal to protect enzymes, and other biochemical reagents under cool enviroment.
- The polycarbonate cooler body is filled with a non-toxic gel which cannot contact with the tubes.
- Box should be freezed at -20°C for 24 hours before use. Afterwards can keep the micro tubes and cryo vials at +4°C for long periods.
- Clear lid enables easy identification of box content and protects the tubes from dust, moisture and other enviromental effects.
- Featured with a stainless steel handle with secure grip for safe transfer of the box.
- Non-skid silicone feet guarantees safe and stable stand on the laboratory desks.
- Supplied with tube adaptors enabling to be used with different diameter tubes.

catalogue number	lid type	tube volume	tube quantity	tube array	pack quantity
092.18.001	clear lid	0,5 to 2,0 ml	32	4 x 8	1 piece



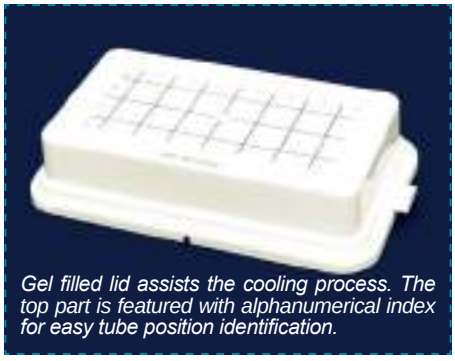
FREEZER BOX - *"gel-filled lid"*

- Ideal to protect enzymes, and other biochemical reagents under cool enviroment.
- The polycarbonate cooler body and the lid are filled with a non-toxic gel which cannot contact with the tubes.
- Box should be freezed at -20°C for 24 hours before use.
- Afterwards guarantees to keep the micro tubes and cryo vials at -15°C for long periods.
- Opaque lid protects the interior temperature and also protects the tubes from side effects.
- Featured with a stainless steel handle with secure grip for safe transfer of the box.
- Non-skid silicone feet guarantees safe and stable stand on the laboratory desks.
- Supplied with tube adaptors enabling to be used with different diameter tubes.

catalogue number	lid type	tube volume	tube quantity	tube array	pack quantity
092.18.003	gel filled lid	0,5 to 2,0 ml	32	4 x 8	1 piece



Clear lid enables easy identification of box content and protects the tubes from dust, moisture and other enviromental effects.



Gel filled lid assists the cooling process. The top part is featured with alphanumerical index for easy tube position identification.



Supplied with tube adaptors enabling to be used with different diameter tubes.



ICE BUCKETS

- Manufactured from rigid, single-moulded polyurethane with excellent insulation properties.
- Recommended for ice, dry ice, ice-salt slurries and liquid nitrogen involved techniques.
- Guarantees perfect durability needed for chilling temperature sensitive samples.
- Guarantees excellent temperature resistance between -196°C to +90°C.
- Lid featured with a recessed knob keeps the evaporation at the minimum level.
- Easily stackable due to the tapered body form for reducing storage space.

catalogue number	volume	dimensions	pack quantity
092.19.001	1 L	210 x 190 x 115	1 piece
092.19.004	4 L	380 x 260 x 150	1 piece
092.19.009	9 L	500 x 355 x 150	1 piece





ICE CUBE TRAYS

- Manufactured from food grade, virgin polypropylene.
- Compact designs allow practical use even with small freezers.
- Sliding lid totally covers the tray and keeps the ice cubes free from environmental effects.
- Sliding lid also guarantees the dislodge of exact amount of ice cubes without spillage of the rest.
- **Available 2 trays:**
  - **Large ice cube trays**
  - **Small ice cube trays**

catalogue number	product descriptions	dimensions	pack quantity
092.16.001	Large ice cube trays	238 x 110 x 32 mm	1 piece
092.16.002	Small ice cube trays	265 x 110 x 35 mm	1 piece



PCR TUBES - *"single cavity"*

- Single cavity 0.2 ml PCR tubes for thermal transfer and PCR applications are manufactured from ultra clear, virgin polyropylene by fully automatic, human touch free machines.
- Manufactured in class 10.000 sterile areas as **"DNase, RNase & pyrogen free"** product.
- Uniform and thin wall design accelerates the thermal heat transfer and shortens the PCR reaction and cycling times.
- Optimum tube dimensions guarantee compatibility with most leading thermal cyclers.
- Cap inner design ensures hermetical and leak-proof closure
- Once cap is closed the tubes guarantee perfect sealing during thermal cycling preventing evaporation.
- Cap can be opened and closed with one hand without the risk of sample contamination.
- Group packed with lot number, production date and expiry date printed on the package.

catalogue number	pack quantity	box quantity
123.01.002	500 pieces	6 packs / 3000 pieces







strips with flat caps



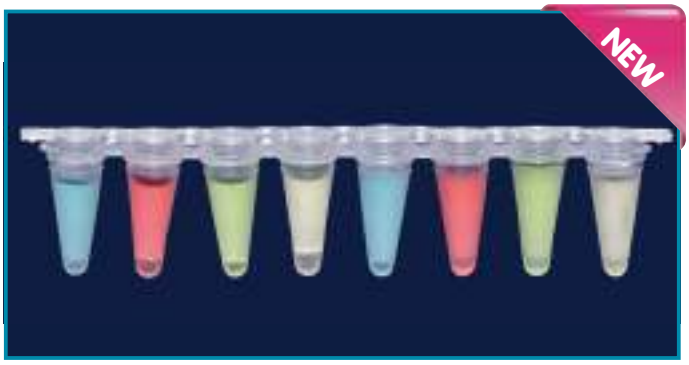
strips with domed caps

PCR TUBES - *"8 strip"*

- 8 strip PCR tubes for thermal transfer and PCR applications are manufactured from ultra clear, high grade polyropylene by fully automatic, human touch free machines.
- They perfectly fit to all PCR plates and provide fast filling option by 8 channel pipettors.
- Manufactured in class 10.000 sterile areas as **"DNase, RNase & pyrogen free"** product.
- Uniform and thin wall design accelerates the thermal heat transfer and shortens the PCR reaction and cycling times.
- Unique design offers compatibility with most leading PCR thermal cyclers.
- When necessary these strips can be cut and used as single PCR tubes.
- Once caps are closed the tubes guarantee perfect sealing during thermal cycling preventing evaporation.
- Caps can be opened and closed with one hand without the risk of sample contamination.
- **Alternative 2 strips:** **strips with attached caps** / **strips with separate caps**
- **Alternative 2 caps:** **strips with flat caps** / **strips with domed caps**
- Flat caps are useful when labelling is required, on the other hand the dome caps prevent reaction solution binding to the cap surface.
- Group packed with lot number, production date and expiry date printed on the package.

catalogue number	volume	product descriptions	pack quantity	box quantity
123.01.028	0,2 ml	clear PCR strips with attached flat caps	12 pieces	10 packs / 120 pieces
123.03.028	0,2 ml	clear PCR strips with separate flat caps	12 pieces	10 packs / 120 pieces
123.03.128	0,2 ml	clear PCR strips with separate domed caps	12 pieces	10 packs / 120 pieces

qPCR TUBES - *"8 strip" - "with flat cap"*





- 8 strip 0,1 ml qPCR tubes for thermal transfer and qPCR applications are manufactured from ultra clear, high grade polyropylene by fully automatic, human touch free machines.
- Manufactured in class 10.000 sterile areas as **"DNase, RNase & pyrogen free"** product.
- Uniform and thin wall design accelerates the thermal heat transfer and shortens the PCR reaction and cycling times.
- Low profile tube design offers compatibility with most leading qPCR machines.
- Once caps are closed the tubes guarantee perfect sealing during thermal cycling preventing evaporation.
- Caps can be opened and closed with one hand without the risk of sample contamination.
- Group packed with lot number, production date and expiry date printed on the package.
- **Alternative 4 strips:**
  - **0,1 ml clear strips with caps**
  - **0,1 ml white strips with caps**
  - **0,2 ml clear strips with caps**
  - **0,2 ml white strips with caps**

catalogue number	*volume*	*product descriptions*	*pack quantity*	*box quantity*
123.02.028	*0,1 ml*	*clear qPCR strips with seperated flat caps*	*12 pieces*	*10 packs / 120 pieces*
123.02.128	*0,1 ml*	*white qPCR strips with seperated flat caps*	*12 pieces*	*10 packs / 120 pieces*
123.02.018	*0,2 ml*	*clear qPCR strips with seperated flat caps*	*12 pieces*	*10 packs / 120 pieces*
123.02.118	*0,2 ml*	*white qPCR strips with seperated flat caps*	*12 pieces*	*10 packs / 120 pieces*

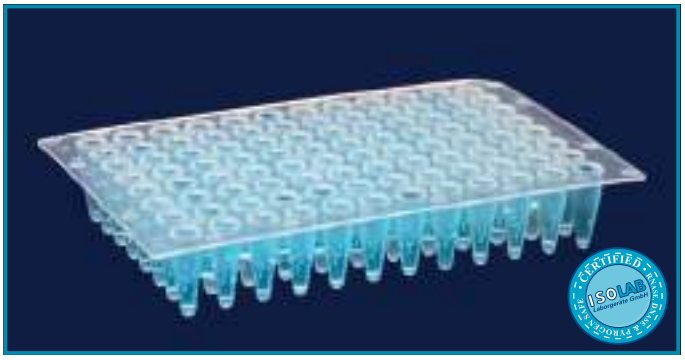
Sterile tubes are manufactured in germ-free, class 10.000 sterile production areas and then re-sterilised by gamma irradiation.

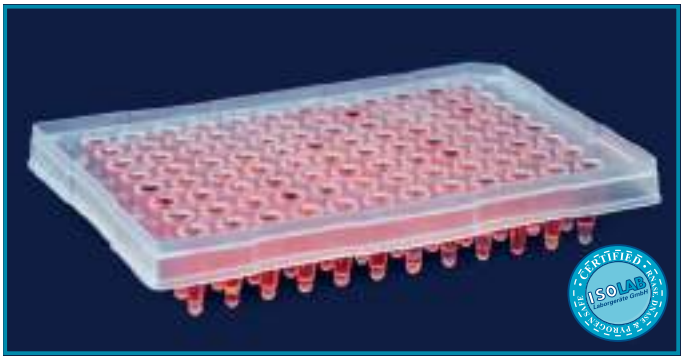


*Sterile tubes are supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free".***

***"DNase, RNase and Pyrogen free"** certificate shows the result criterias and guarantees the documentation of the quality.*

Certification process starts from inspection of raw materials, covers the entire production steps and ends with final tests after production of each lot.

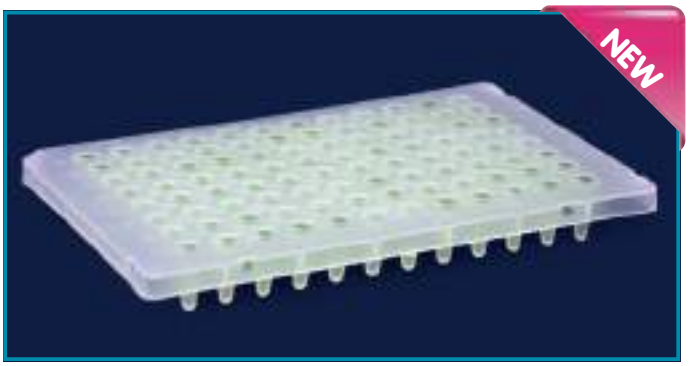




PCR PLATES

- 96 well PCR plates with 0,2 ml wells for thermal transfer and PCR applications are manufactured from ultra clear, virgin polyropylene by fully automatic, human touch free machines.
- Manufactured in class 10.000 sterile areas as **"DNase, RNase & pyrogen free"** product.
- Uniform and thin wall design accelerates the thermal heat transfer and shortens the reaction and cycling times.
- Unique design offers compatibility with most leading PCR machines
- Alphanumerical index on tube rows enables easy identification of tube positions.
- Single packed with lot number, production date and expiry date printed on the package.
- **Alternative 2 plates:**
  - **Non- skirted PCR plates with 0.2 ml well volume**
  - **Semi skirted PCR plates with 0.2 ml well volume**

catalogue number	volume	product descriptions	pack quantity	box quantity
123.01.096	0,2 ml	Non- skirted clear PCR plates	10 pieces	5 packs / 50 pieces
123.02.096	0,2 ml	Semi skirted clear PCR plates	10 pieces	5 packs / 50 pieces



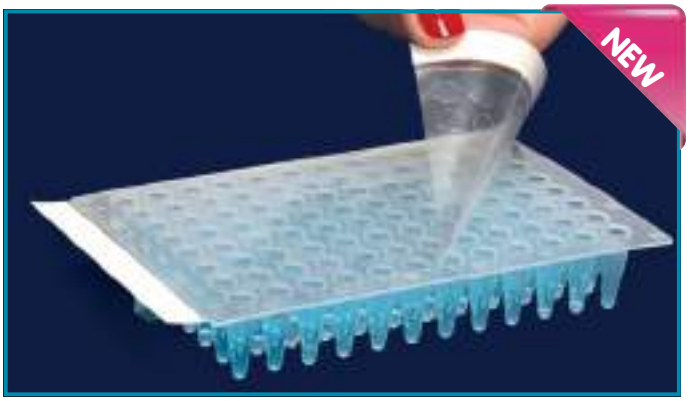


qPCR PLATES

- 96 well qPCR plates with 0,1 ml wells for thermal transfer and qPCR applications are manufactured from ultra clear, virgin polyropylene by fully automatic, human touch free machines.
- Manufactured in class 10.000 sterile areas as **"DNase, RNase & pyrogen free"** product.
- Uniform and thin wall design accelerates the thermal heat transfer and shortens the reaction and cycling times.
- Unique design offers compatibility with most leading qPCR machines.
- Alphanumerical index on tube rows enables easy identification of tube positions.
- Single packed with lot number, production date and expiry date printed on the package.
- **Alternative 2 colors:**
  - **Clear qPCR plates**
  - **White qPCR plates**

catalogue number	volume	product descriptions	color	pack quantity	box quantity
123.03.096	0,1 ml	Sub-Semi skirted qPCR plates	clear	10 pieces	5 packs / 50 pieces
123.04.096	0,1 ml	Semi skirted qPCR plates - low profile	white	10 pieces	5 packs / 50 pieces
123.05.096	0,1 ml	Semi skirted qPCR plates - low profile	clear	10 pieces	5 packs / 50 pieces

SEALING FILMS - *"for PCR and qPCR plates"*



- Manufactured from polyester based film with acrylic adhesive back. **"DNase, RNase & pyrogen free"** product.
- Guarantees excellent chemical and temperature resistance between -40°C to +120°C.
- Can be used with all kinds of microplates including raised rim and skirted ones. Transparency allows optical analysis possibility of PCR and qPCR applications.
- Allows easier and more accurate positioning and more secure sealing around each well.
- Prevents cross contamination between samples and wells.
- Also does not interfere with cycle reactions and does not cause spills on PCR samples.
- **Alternative 2 membranes:**
  - **For PCR plates**
  - **For qPCR plates**
- Membranes for qPCR are featured with pressure sensitive adhesive film.



catalogue number	product descriptions	pack quantity	box quantity
124.01.001	Membranes for PCR plates	10 pieces	100 pieces
124.01.002	Membranes for qPCR plates	10 pieces	100 pieces

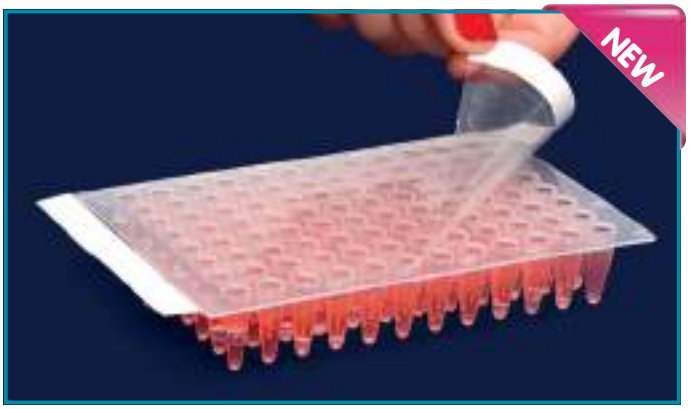
SEALING FILMS - *"aluminium membrane"*



- Manufactured from aluminium film with acrylic adhesive back. **"DNase, RNase & pyrogen free"** product.
- Guarantees excellent chemical and temperature resistance between -80°C to +120°C.
- Allows easier and more accurate positioning and more secure sealing around each well. Easily piercible.

catalogue number	product descriptions	pack quantity	box quantity
124.01.011	aluminium membranes	10 pieces	100 pieces

SEALING FILMS - *"for ELISA / EIA"*



- Manufactured from BOPP polypropylene film with acrylic adhesive back. **"DNase, RNase & pyrogen free"** product.
- Guarantees excellent chemical and temperature resistance between -40°C to +120°C.
- Can be used with all kinds of microplates including raised rim and skirted ones .

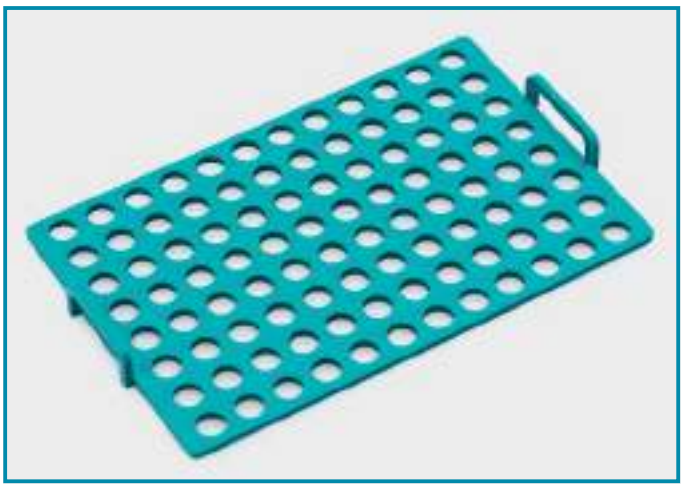
catalogue number	product descriptions	pack quantity	box quantity
124.01.021	membranes for ELISA	10 pieces	100 pieces



FREEZING BOXES - *"for PCR tubes"*

- Ideal to protect PCR tubes and strips at +4°C when working at laboratory ambient temperature.
- The polycarbonate cooler body is filled with a non-toxic gel which cannot contact with the tubes.
- Box should be freezed at -20°C for 24 hours before use. Afterwards guarantees to keep the PCR tubes and strips at +4°C for long periods.
- Clear lid enables easy identification of box content and protects the tubes from environmental effects.
- Featured with a stainless steel handle with secure grip for safe transfer of the box.
- Non-skid silicone feet guarantees safe and stable stand on the laboratory desks.
- Not suitable for skirted PCR plates.

catalogue number	dimensions	pack quantity
092.18.008	164 x 215 x 149 mm	1 piece



PCR TRANSFER TRAY

- Manufactured from polypropylene for easy and fast carry and transfer of PCR tubes and PCR strips.
- A real time saver for everyone working with individual PCR tubes or strips of 8 and 12 tubes.
- Unique thin design guarantees perfect rest over 96 well tube racks and thermal cyclers.
- Two handles on both sides provide easy lift and carry during transportation of PCR tubes and strips.

catalogue number	tray dimensions	pack quantity
089.08.001	114 x 74 x 11 mm	1 piece

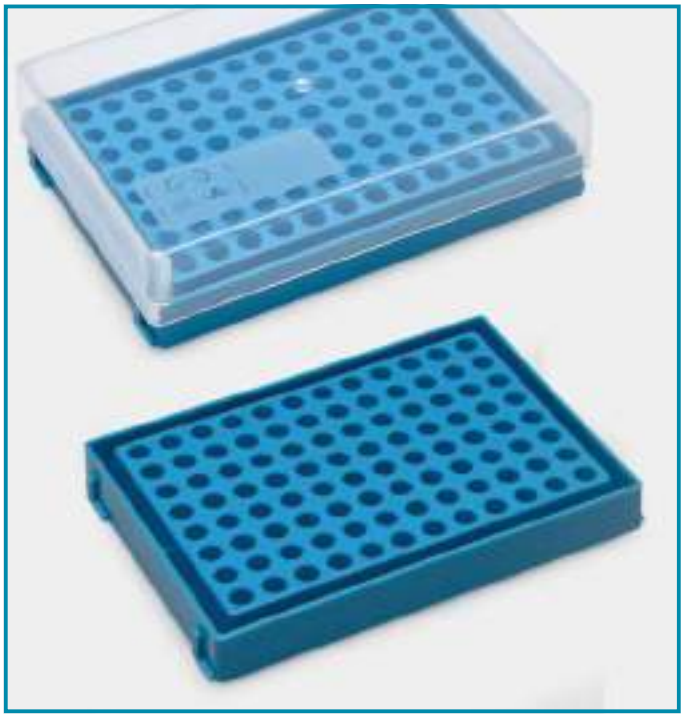


MIXER - *"microplate"*

- Offers continuous orbital mixing of microplates for variety of applications in life science.
- Maintenance free DC motor with low noise level enables a smooth start and quick stop.
- Infinitely adjustable speed control from 0 to 1500 rpm guarantees a gentle revolution and optimal mixing.
- Aluminium cast housing avoids the vibration enabling an excellent stable operation.
- Top plate is easily removable and replaceable with optional adapters that can hold different tube sizes.
- Can be used both in cold rooms, incubators and anaerobic and aerobic chambers due to the small foot print and extremely compact design.

Other technical specifications can be seen at catalogue page no 255.

PCR RACK



- Manufactured from polypropylene for “before” and “after” use at PCR sampling and applications.
- Rack can carry 3 different size PCR tubes & PCR strips.
  - 96 x 0,2 ml PCR tubes (8x12 array)
  - 12 x strip of 8 PCR tubes (8x12 array)
  - 8 x strip of 12 PCR tubes (8x12 array)
- The rack can be used alone or inserted into a workstation.
- Alphanumerical index on tube rows enables easy identification of tube positions.
- Translucent and clear lid fully covers the rack protecting rack interior from dust and other environmental effects.
- Lid also allows safe storage of racks on each other for reducing storage space.



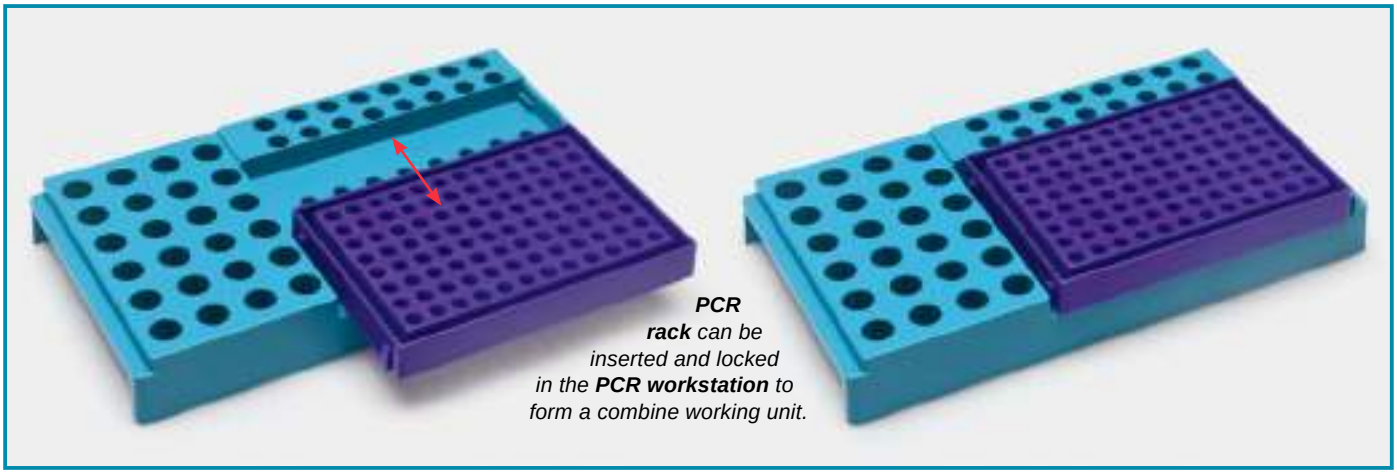
blue rack	purple rack	ruby rack	rack (mm) dimensions	pack quantity
089.03.012B	089.03.012P	089.03.012R	125x88x31	1 piece

PCR WORKSTATION

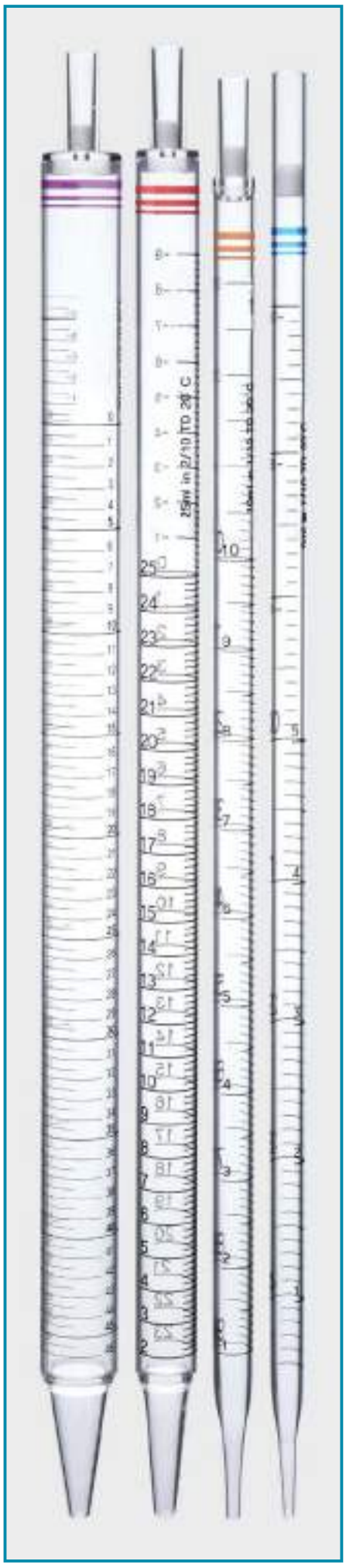


- Manufactured from polypropylene for accommodation of different size PCR tubes and PCR strips.
- Rack can carry 3 different size tubes
  - 32 x 0,2 ml PCR tubes (4x8 array)
  - 16 x 0,5 ml PCR tubes (2x8 array)
  - 24 x 1,5 ml micro tubes (4x6 array)
- Alphanumerical index on tube rows enables easy identification of tube positions.
- Translucent and clear lid fully covers the rack protecting rack interior from dust and other environmental effects.
- Frosted marking areas on lid sides provides a convenient area for marking and labelling.
- Lid also allows safe storage of racks on each other for reducing storage space.
- PCR rack can be inserted into the working station in order to form a combined and practical working unit.

catalogue number	rack dimensions	pack quantity
089.03.013	210 x 115 x 50 mm	1 piece



***PCR rack** can be inserted and locked in the **PCR workstation** to form a combine working unit.*



PIPETTES - *"serological" - "polystyrene"*

- Manufactured from virgin polystyrene with excellent optical transparency.
- Sterilized with gamma irradiation. Free of RNase, DNase, DNA and pyrogene.
- Unique design offers a smooth interior which prevents cell-hanging and clumping inside the pipette wall.
- Stable and break-resistant pipette tip offers constant the reproducible flow in each time.
- Optimised mouthpiece perfectly fits to all types of pipette pumps and balls.
- Filter plug at the mouthpiece prevents overflow of liquid and also eliminates contamination.
- Color coded ring mark at suction stem allows fast identification and sourcing.
- The sharp, black, highly visible permanent graduations prevent ambiguity and guarantee precise reading and accurate dispensing.
- Reverse graduations show actual removed or remaining volumes on all pipettes larger than 1 ml volume.
- Pipettes are supplied individually wrapped in fiber-free color coded paper as easy-to-open packing.



Volume identification by color coding on pipette enables easy volume identification during working.



Filter plug at the mouthpiece of the pipette prevents exterior effects and minimize contamination.



Accurate volume identification by highly visible bidirectional graduation printed on pipette side body.

Ascending and descending scales facilitate reading both dispensing and remaining volume.

catalogue number	pipette volume	line color	pack quantity	box quantity
083.03.001	1 ml	yellow	200 pieces	800 pieces
083.03.002	2 ml	green	150 pieces	600 pieces
083.03.005	5 ml	blue	100 pieces	400 pieces
083.03.010	10 ml	orange	100 pieces	400 pieces
083.03.025	25 ml	red	50 pieces	200 pieces
083.03.050	50 ml	purple	40 pieces	160 pieces

RACK - *"for pipettes"*

- Manufactured from acrylic for easy organisation of all kind of pipettes.
- 4 shelves guarantee easy and fast reach of all pipettes between 1 ml to 50 ml size within arm's reach.
- Angled design of the pipette shelves prevents the risk of pipettes falling out even the shelf is fully filled.

Other technical specifications can be seen at catalogue page no 23.

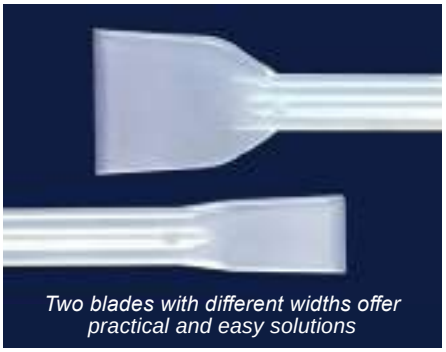


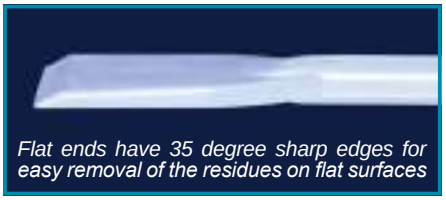


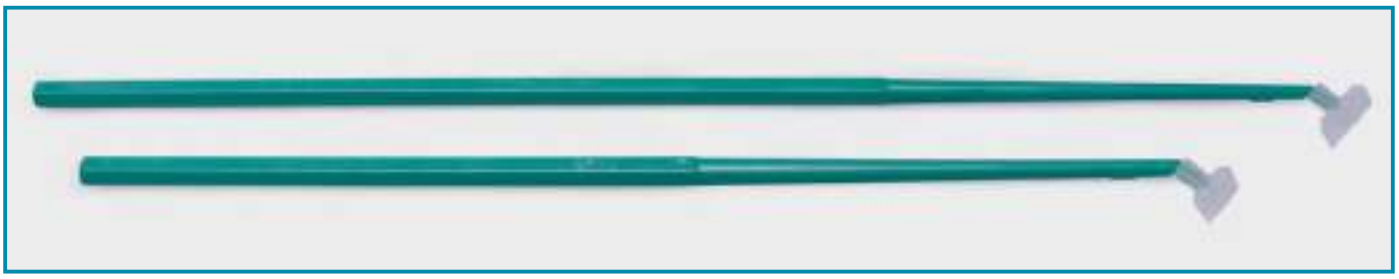
CELL LIFTER - *"for cell culture" - "sterile"*

- Manufactured from polypropylene and specially designed for scraping of attached cells on culture dishes or plate surfaces. Ideal for manual harvesting of cells.
- Manufactured in germ-free, class 10.000 sterile production areas and then resterilised by gamma irradiation.
- Supplied with a certificate of **"DNase, RNase & pyrogen free"** product.
- Featured with two flat ends with different widths on a single handle.
- Two blades with different widths offer practical and easy solutions during sample scraping and collection.
- Specially the wide blade end offers ideal solutions for dish and 6 well plates.
- Flat ends have 35 degree sharp edges for easy removal of the residues on flat surfaces.
- Individually single packed with lot number, production date and expiry date printed on the package.

catalogue number	total length	narrow end width	large end width	pack quantity
121.01.001	245 mm	12 mm	23 mm	10 pieces

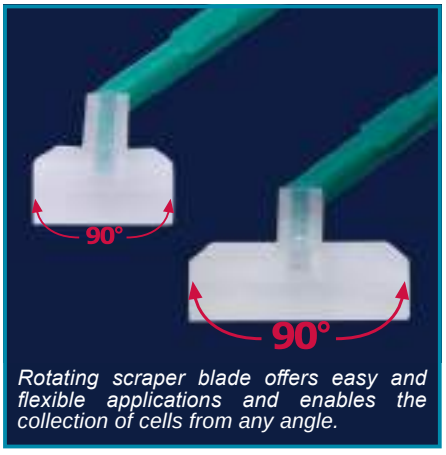

Two blades with different widths offer practical and easy solutions


Flat ends have 35 degree sharp edges for easy removal of the residues on flat surfaces



CELL SCRAPERS - *"for cell culture" - "sterile"*

- Specially designed to facilitate collection of attached cells on culture dishes.
- Manufactured in germ-free, class 10.000 sterile production areas and then resterilised by gamma irradiation.
- Supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.
- Handle is manufactured from polypropylene. Scraper head is manufactured from flexible polyethylene.
- Scraper blade rotates around the it's axis enabling easy and flexible applications.
- The rotating blade also guarantees the efficient collection of cells from any angle.
- Ultra smooth blade surfaces offer problem-free collection without the risk of cutting or gauging the agar surface.
- Hexagonal shaft improves grip, assists orientation and makes diluting and streaking easy.
- Hexagonal handle also enables orientation of the loop head with a fixed angle.
- Individually single packed with lot number, production date and expiry date printed on the package.



Rotating scraper blade offers easy and flexible applications and enables the collection of cells from any angle.

catalogue number	total length	blade width	box quantity
121.01.013	225 mm	13 mm	100 pieces
121.02.020	290 mm	20 mm	100 pieces



FLASKS - *"for cell culture"*

- Manufactured from optically clear polystyrene in germ-free, class 10.000 sterile production areas and then resterilised by gamma irradiation. Supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.
- Offers absolutely flat growth surface with surface activated growth area for fast and efficient growth.
- Special design offers minimized contamination risk. Angled design of the flask neck allows easy access to each corner with 100 % cell retrieval without leaving any dead corners.
- **Available 2 caps:**
  - **Plug cap for airtight culture**
  - **Vent cap for open culture**
- Caps are made from polypropylene with large ridges with increased grip. Cap inner design ensures hermetical and leak-proof closure.
- Caps can be opened and closed with single hand. A 2/3 turn of the cap will be sufficient for hermetic and leak-proof closure.
- Graduations on the side wall offer visual control of the filled volume. Marking area on side wall enables easy marking and labelling.
- Individually single packed with lot number, production date and expiry date printed on the package.



Plug seal cap usually used for airtight culture applications. Can be used also for open culture when the cap is unscrewed.



Vent cap is designed for open culture applications. Includes a contamination preventing hydrophobic membrane 0,2 µm.



Angled design of the flask neck allows easy access to each corner with 100 % cell retrieval without leaving any dead corners.



Ergonomic design minimizes contamination and raised corners at the body enables easy and slip-free stacking possibility.

catalogue number	growth area	working volume	cap type	surface treatment	pack quantity	box quantity
120.01.025	25 cm^2	7 ml	vent cap with filter	yes	5 pieces	200 pieces
120.01.075	75 cm^2	25 ml	vent cap with filter	yes	5 pieces	100 pieces
120.01.175	175 cm^2	50 ml	vent cap with filter	yes	5 pieces	40 pieces
120.02.025	25 cm^2	7 ml	plug seal cap	yes	5 pieces	200 pieces
120.02.075	75 cm^2	25 ml	plug seal cap	yes	5 pieces	100 pieces
120.02.175	175 cm^2	50 ml	plug seal cap	yes	5 pieces	40 pieces



MULTIWELL PLATES - *"for cell culture"*

➤ Widely used plates for handling multiple samples in a single experiment during culture.

➤ Manufactured from optically clear polystyrene in germ-free, class 10.000 sterile production areas and then resterilized by gamma irradiation.

➤ Supplied with a certificate as a guarantee of "DNase, RNase & pyrogen free" product.

➤ Offers absolutely flat growth surface with surface activated growth area for fast and efficient growth.

➤ Unique design guarantees minimized cross contamination risk.

➤ They offer also easy handling with slip-free stacking possibility.

➤ Lid with air-venting system for controlled gas exchange with low evaporation.

➤ Vented base guarantees excellent air flow between stacked dishes to prevent condensation.

➤ Sloped edge allows placement of the lid in one single position. Uniform well volumes always ensures equal growth surface area.

➤ Individually single packed with lot number, production date and expiry date printed on the package.



Ergonomic design offers minimized contamination risk and easy handling with slip-free stacking possibility.



Individual packing eliminates the possible risks of contaminations. Designed to prevent cross contamination.

catalogue number	well quantity	well type	external dimensions (mm)	well dimension	growth area	working volume	surface treatment	pack quantity	box quantity
122.01.006	6	flat	85.4 x 127.6 x 20.2	35.0 x 17.5 mm	9.60 cm2	3 ml	yes	1 piece	50 pieces
122.01.012	12	flat	85.4 x 127.6 x 20.2	22.1 x 17.5 mm	3.80 cm2	2 ml	yes	1 piece	50 pieces
122.01.024	24	flat	85.4 x 127.6 x 20.2	15.5 x 17.5 mm	1.90 cm2	1 ml	yes	1 piece	50 pieces
122.01.048	48	flat	85.4 x 127.6 x 20.2	9.75 x 17.5 mm	0.75 cm2	0,5 ml	yes	1 piece	50 pieces
122.01.096	96	flat	85.4 x 127.6 x 14.4	6.50 x 10.8 mm	0.33 cm2	0.2 ml	yes	1 piece	50 pieces
122.01.196	96	round	85.4 x 127.6 x 14.4	6.92 x 12.0 mm	0.66 cm2	0,2 ml	yes	1 piece	50 pieces

CENTRIFUGE TUBES - *"for cell culture"*

➤ Manufactured from **FDA approved** ultra clear, high grade polypropylene. Can resist centrifugation up to 6.000 RCF.

➤ Sterilized with gamma irradiation, **free of RNase, DNase, and pyrogene.**

➤ Individual packing eliminates the possible risks of contaminations.

➤ Their conical bottoms make them suitable for centrifugation tests in immunology, microbiology etc.

Other technical specifications can be seen at catalogue page no 292, 293 and 294.







SLIDES - *"for cell culture"*

- Widely used for cell-based experiments and are also useful for virus, toxicity tests and immunocytological experiments.
- Manufactured from optically clear polystyrene in germ-free, class 10.000 sterile production areas and then resterilized by gamma irradiation.
- Supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.
- Cell culture slides provide removable chamber that enables cell growth directly on the microscope slide.
- Unique design provides examinations without cell transfer.
- Chambers with various well numbers and colors are available for different applications.
- Since no adhesives are used they guarantee minimized cross contamination risk.
- They offer also easy handling with easy open chamber and slide disassembly.
- Individually single packed with lot number, production date and expiry date printed on the package.

catalogue number	well quantity	material chamber / slide / holder	chamber color	growth area	working volume	surface treatment	pack quantity	box quantity
126.01.011	1	P.S / glass / P.P	clear	9.40 cm^2	2,5 - 5,5 ml	no	6 pieces	12 pieces
126.01.014	1	P.S / dLux / P.P	clear	9.40 cm^2	2,5 - 5,5 ml	yes	6 pieces	12 pieces
126.01.021	2	P.S / glass / P.P	clear	4.55 cm^2	1,2 - 2,5 ml	no	6 pieces	12 pieces
126.01.024	2	P.S / dLux / P.P	clear	4.55 cm^2	1,2 - 2,5 ml	yes	6 pieces	12 pieces
126.01.041	4	P.S / glass / P.P	clear	2.13 cm^2	0,5 - 1,3 ml	no	6 pieces	12 pieces
126.01.044	4	P.S / dLux / P.P	clear	2.13 cm^2	0,5 - 1,3 ml	yes	6 pieces	12 pieces
126.01.081	8	P.S / glass / P.P	clear	0.98 cm^2	0,2 - 0,6 ml	no	6 pieces	12 pieces
126.01.084	8	P.S / dLux / P.P	clear	0.98 cm^2	0,2 - 0,6 ml	yes	6 pieces	12 pieces



COVERSLIPS - *"for cell culture"*

- Specially manufactured coverslips suitable for high resolution microscopy.
- Manufactured from optically clear polystyrene in germ-free, class 10.000 sterile production areas and then resterilized by gamma irradiation.
- Supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.
- They are resistant to breakage and various solvents and are suitable for specimen preparation under optical microscopes.

catalogue number	material	fits into	diameter	pack quantity	box quantity
126.02.048	flux	48 well	9,00 mm	100 pieces	200 pieces
126.02.024	flux	24 well	12,00 mm	100 pieces	200 pieces
126.02.012	flux	12 well	18,00 mm	100 pieces	200 pieces
126.02.006	flux	6 well	25,00 mm	50 pieces	200 pieces

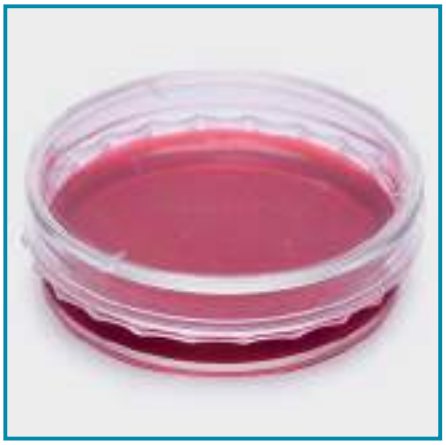
CONFOCAL DISH and PLATE - *"for cell culture"*



- They allow researchers to acquire high resolution microscopic images of cells in 35 mm culture dishes or 6 well plates.
- Since low auto-fluorescence surface materials are used, they are ideal for confocal microscopy, phase contrast microscopy, live cell imaging.
- Manufactured from optically clear polystyrene in germ-free, class 10.000 sterile production areas and then resterilized by gamma irradiation.
- Supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.

catalogue number	material	external dimensions D x H (mm)	internal dimensions D x H (mm)	hole diameter	confocal region	working volume	surface treatment	pack quantity	box quantity
126.03.035	P.S / glass	35,00 x 10,00	34,30 x 9,30	13 mm	1.33 cm^2	3 ml	no	5 pieces	100 pieces
126.03.135	P.S / glass	35,00 x 10,00	34,30 x 9,30	13 mm	1.33 cm^2	3 ml	yes	5 pieces	50 pieces
126.03.635	P.S / glass	85,40 x 127,60	35,00 / well	13 mm	1.33 cm^2	3 ml	no	1 piece	4 pieces

PETRI DISHES - *"for cell culture"*



- Manufactured from optically clear, transparent polypropylene specially for cell culture practices.
- Production is done by fully automatic, human touch free machines.
- Manufactured in germ-free, class 10.000 sterile production areas and then resterilised by gamma irradiation.
- Supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.
- Ideal body form guarantees excellent use with automatic filling machines.
- External grip edges in the gripping ring prevents accidental dropping of the dish bottom.
- Stacking ring on the lid and the corresponding base part guarantees secure stacking option.
- Surface treated uniform flat growth surface guarantees excellent suspension for cultures.

catalogue number	diameter	height	growth area	working volume	surface treatment	external grip	pack quantity	box quantity
120.03.035	35 mm	10 mm	9.4 cm^2	3 ml	yes	yes	10 pieces	500 pieces
120.03.060	60 mm	15 mm	21.5 cm^2	5 ml	yes	yes	10 pieces	500 pieces
120.03.090	100 mm	20 mm	55.0 cm^2	12.5 ml	yes	no	10 pieces	200 pieces

IVF DISHES - *"for in vitro fertilization"*



- Manufactured from optically clear, transparent polystyrene especially for in vitro fertilization research. Passed through Mouse Embryo Assay (MEA) tests.
- Manufactured from optically clear polystyrene in germ-free, class 10.000 sterile production areas and then resterilised by gamma irradiation.
- Supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.
- Production is done by fully automatic, human touch free machines. Ideal body form guarantees excellent use with automatic filling machines.
- External grip edges in the gripping ring prevent accidental dropping of the dish bottom.
- Stacking ring on the lid and the corresponding base part guarantees secure stacking.
- Treated uniform, flat growth surface guarantees excellent suspension for cultures.

- **Alternative 2 dishes:**
  - **Dishes without well**
  - **Dishes with center well**

catalogue number	ext. dimensions D x H (mm)	well dia.	surface treatment	pack quantity	box quantity
120.04.060	60,00 x 15,00	20 mm	no	10 pieces	500 pieces
120.04.160	60,00 x 15,00	20 mm	yes	10 pieces	500 pieces
120.05.160	60,00 x 15,00	none	yes	10 pieces	500 pieces



CELL STRAINER

- Manufactured from nylon with 3 different pore size offering optimal performances in a variety of applications such as stem cell and primary cell preparation.
- Manufactured in germ-free, class 10.000 sterile production areas and then resterilized by gamma irradiation. Supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.
- Production is done by fully automatic, human touch free machines. Ideal body form guarantees excellent use with automatic filling machines.
- Ideal for obtaining uniform single cell suspension from various sources.
- Treated, uniform, flat growth surface guarantees excellent suspension for cultures.
- 3 different color codes specify different mesh porosities for easy identification. Extended gripping tab on housing for easy handling.

catalogue number	material	pore size	color	pack quantity	box quantity
078.02.101	P.P / nylon	40 µm	blue	1 piece	50 pieces
078.02.102	P.P / nylon	70 µm	natural	1 piece	50 pieces
078.02.103	P.P / nylon	100 µm	yellow	1 piece	50 pieces

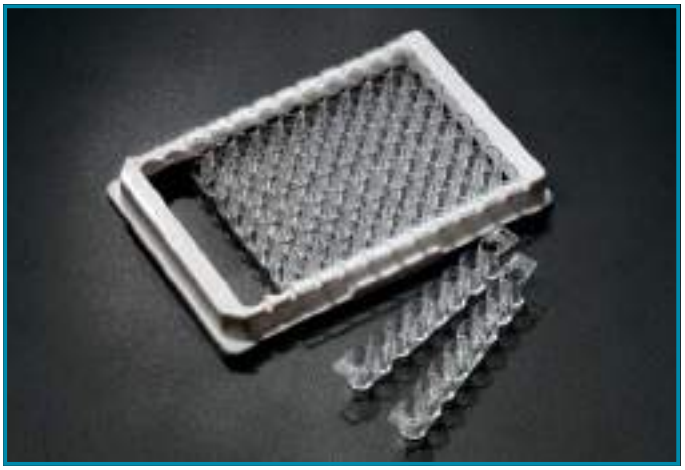


- Featured with raised rims around wells and alphanumerical labelling.
- Uniform well volumes ensure equal growth surface area.

IMMUNOPLATES - *"maxibinding"*

- Manufactured from optically clear, transparent polystyrene with 96 wells especially for ELISA and other immunoassays.
- Manufactured in germ-free, class 10.000 sterile production areas and then re-sterilized by gamma irradiation.
- Supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.
- "Maxibinding" plates are featured with modified polystyrene surface for a higher binding capacity for proteins and other molecules with both hydrophilic and hydrophobic regions. Recommended for most ELISA experiments.
- Production is done by fully automatic machines. Ideal body form guarantees excellent use with automatic filling machines.
- Unique design guarantees minimized cross contamination risk.
- They offer also easy handling with slip-free stacking possibility.

catalogue number	bottom type	surface type	ext. dimensions W x L x H (mm)	bottom surface area	total volume	working volume	pack quantity	box quantity
121.05.096	flat	Maxibinding	85,4 x 12,6 x 14,4	0.33 cm2	400 µl	350 µl	10 pieces	100 pieces



IMMUNOPLATE STRIP - *"maxibinding"*

- 8 well immunoplate strips with flat wells perfectly fit to the plate.
- Manufactured in germ-free, class 10.000 sterile production areas and then resterilized by gamma irradiation.
- Supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.
- "Maxibinding" strips are featured with modified polystyrene surface for a higher binding capacity for proteins and other molecules with both hydrophilic and hydrophobic regions. Recommended for most ELISA experiments.
- Featured with raised rims around wells and alphanumerical labelling.

catalogue number	surface type	ext. dimensions W x L x H (mm)	bottom surface area	total volume	working volume	pack quantity	box quantity
121.06.096	Maxibinding	85,4 x 127,6 x 14,4	0.33 cm2	400 µl	350 µl	10 pieces	100 pieces

PLANT CULTURE BOX - *"for plant culture"*



- They are ideal for the use in plant tissue culture. As the sprout grows, another box can be connected on top as an optional frame.
- The boxes are manufactured from polycarbonate and the frames are manufactured from polypropylene. Both the boxes and the frames are unbreakable.
- Both the boxes and the frames are autoclavable and reusable.
- The boxes have the external dimensions of 72 x 72 x 100 mm and the internal dimensions of 65.40 x 65.40 x 98.20 mm.
- Frames have the external dimensions of 80.80 x 80.80 x 21.00 mm and the internal dimensions of 63.80 x 63.80 x 21.00 mm.

catalogue number	product description	material	pack quantity	box quantity
120.06.070	box	polycarbonate	4 pieces	120 pieces
120.06.074	frame	polypropylene	30 pieces	60 pieces

DISHES - *"for plant culture"*



- Plant culture dishes are ideal for the use in sprout culture.
- 100x50 dishes are manufactured from polypropylene, 100x20 dishes are manufactured from polystyrene.
- The dishes are pre-sterilized and they provide excellent culture results.
- They are designed for reduced contamination and they provide excellent air circulation.
- The bottom area has an excellent flatness and they provide stable stacking.
- The dishes are provided in two different sizes; 100.00 x 50.00 mm and 100.00 x 20.00 mm (d x h).

catalogue number	ext. dimensions dia. x H (mm)	int. dimensions dia. x H (mm)	pack quantity	box quantity
120.10.100	100,00 x 50,00	91.40 x 48,50	5 pieces	200 pieces
120.12.100	100,00 x 20,00	94,60 x 18,60	10 pieces	200 pieces

CULTURE BOTTLES - *"for plant culture"*



- Two alternative bottles are offered for the use in sprout and sapling cultures or sapling or callus.
- The bottles and caps suitable for sprout and sapling cultures are manufactured from polypropylene.
- The bottles and caps suitable for sapling or callus are manufactured from polycarbonate and HDPE.
- The bottles are non-sterile but they are autoclavable.
- They are designed for reduced contamination with screw caps.
- The bottles have a working volume of 500 ml.
- **Alternative 2 bottles:**
  - **For sprout and sapling culture**
  - **For culture of sapling and callus**

catalogue number	type	box quantity
120.14.500	for sprout and sapling culture	1 piece
120.14.501	for culture of sapling and callus	1 piece





VACUUM FILTER SYSTEMS - *"with bottle top filters"*

- Manufactured from medical grade highly transparent polystyrene by fully automatic, human touch free machines.
- Manufactured in germ-free , class 10.000 sterile production areas and then resterilized by gamma irradiation.
- Supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.
- They offer best solution for filtering cell culture media, biological fluids, and aqueous solutions
- The system consists of a bottle top filter and a solution bottle.
- Lid should be removed from the bottle top filter before pouring the media and should be closed for preventing contamination when not in use.
- Clear embossed graduations both on the filter and flask bodies assure precise volume adjustment of media.
- Single packed with lot number, production date and expiry date printed on the package.

PES (Polyether Sulfone)

- Offers the removal of mycoplasma from the cell culture medium.

catalogue number	volume	membrane type	pore size	pack quantity
043.15.251	250 ml	PES	0,22 um	12 pieces
043.15.252	250 ml	PES	0,45 um	12 pieces
043.15.501	500 ml	PES	0,22 um	12 pieces
043.15.502	500 ml	PES	0,45 um	12 pieces

PVDF (Polyvinylidene Fluoride)

- Offers the lowest protein binding allowing the filtration of biomolecules.

catalogue number	volume	membrane type	pore size	pack quantity
043.16.251	250 ml	PVDF	0,22 um	12 pieces
043.16.252	250 ml	PVDF	0,45 um	12 pieces
043.16.501	500 ml	PVDF	0,22 um	12 pieces
043.16.502	500 ml	PVDF	0,45 um	12 pieces



BOTTLES - *"PET" - "sterile"*

- Manufactured from special formulated PET with thick walls and crush-resistant corners. Specially recommended for safe storage and transportation of cell culture media.
- These bottles are manufactured at aseptically sterile production halls and then send to gamma sterilisation. They can be used for all analysis where a sterile sample is required.
- The bottle neck provides easy filling and pouring. Their square shape offers maximum space saving. Caps are made from polyethylene with large ridges for fast closure.

Other technical specifications can be seen at catalogue page no 58.





Featured with 4 integrated baffles for efficient mixing. Baffles create a turbulent flow, enlarge gas exchange surface and increase oxygen intake.

ERLENMEYERS - *"baffled - straight neck - for cell culture"*

➤ Manufactured from borosilicate glass. Featured with 4 integrated baffles for efficient mixing.

➤ Widely used in microbiology for the preperation of microbial suspension culture. Ideal for cultivating S. Cerevisiae and aerobic bacteria cultures.

➤ Baffles create a turbulent flow, enlarge gas exchange surface and increase oxygen intake.

• These baffles allow stable swirling for effective mixing.

➤ Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.

catalogue number	volume	neck diameter	largest outer dia.	height	pack quantity
027.06.100	100 ml	38 mm	64 mm	112 mm	1 piece
027.06.250	250 ml	38 mm	85 mm	145 mm	1 piece
027.06.500	500 ml	38 mm	105 mm	182 mm	1 piece
027.06.901	1000 ml	38 mm	129 mm	230 mm	1 piece
027.06.902	2000 ml	38 mm	165 mm	275 mm	1 piece



CAP - *"aluminium"*

➤ Manufactured from aluminium for perfect fit to the necks of glass baffled erlenmeyers with straight neck.

➤ Chrome nickel springs grip to the neck of the outer wall of the vessel.

catalogue number	pack quantity
027.06.101	1 piece



STOPPER - *"cellulose"*

➤ Manufactured from additive free autoclavable. Air permeable, actively breathing best quality cellulose.

➤ Provide excellent sealing for microbiological samples in tissue culture tubes, flasks etc.

catalogue number	pack quantity
051.24.009	10 pieces

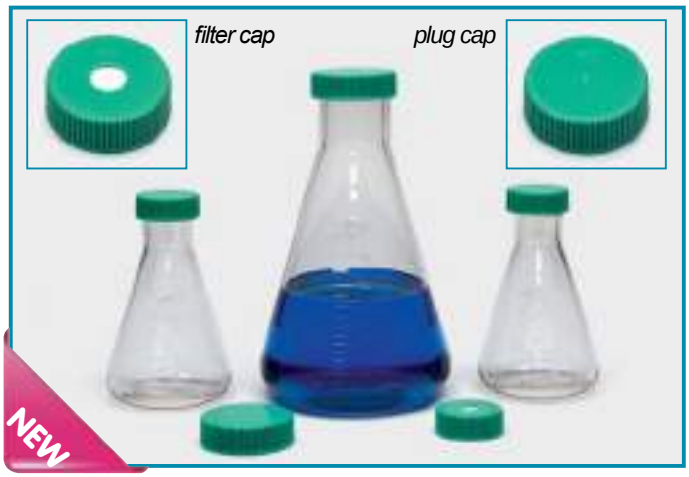
ERLENMEYERS - *"for cell culture" - "sterile"*

➤ Manufactured from autoclavable polycarbonate. Caps are manufactured from polypropylene.

➤ Widely used for the preparation of suspension cultures both in cell culture and microbiological applications such as E.coli, plant callus, etc.

➤ Their unique design provides stable swirling for effective mixing of the solutions.

volume	catalogue number	cap type	catalogue number	cap type	pack quantity
250 ml	027.07.250	plug	027.08.250	filter	8 pieces
500 ml	027.07.500	plug	027.08.500	filter	8 pieces
1000 ml	027.07.901	plug	027.08.901	filter	4 pieces





The unique clamp mechanism at the base enables fixation of the viewing objects firmly in place.

MAGNIFIER - *"table top"*

- Multifunctional table-top magnifier offers magnification power of 3X and 5X depending on view direction.
- Can be operated by one hand. Offers smooth and easy use with distant and near vision lenses.
- 4 LED bulbs with on/off control provide super bright powerful illumination.
- Two separate flexible gooseneck holders enable magnifying lens and illumination angle adjustable in multiangular axes.
- Shadow and flicker free illumination without heat development provides optimal concentration of light.
- Aspherical lens provides spherical aberration and distortion free images with edge-to-edge sharpness.
- Removable main body can be fixed at table corner with a clamp.
- Sturdy base plate inreases the standing efficiency.
- The clamp mechanism at the base enables fixation of objects firmly in place.

catalogue number	pack quantity
065.10.001	1 piece



MAGNIFIER - *"handy type"*

- Hand magnifier offers magnification power of 3X and 5X depending on view direction.
- Handle perfectly fits to hand with a comfortable grip.
- Aspherical lens provides spherical aberration and distortion free images with edge-to-edge sharpness.
- LED bulb with on/off control provides super bright powerful illumination.
- A rotatable joystick switch enables adjustment of illumination angle in all angles.

catalogue number	external dimensions	lens dimensions	pack quantity
065.10.006	230 x 100 mm	100 mm	1 piece



MAGNIFIER - *"pocket type"*

- Perfect magnifier for reading small prints with magnification power of 2X.
- 3 LED bulbs with on/off control provides super bright powerful illumination.
- Ergonomic design enables intuitive movement on the reading material. Delivered in a soft protective bag

catalogue number	external dimensions	lens dimensions	pack quantity
065.10.004	60 x 145 mm	60 x 100 mm	1 piece



REFRACTOMETER - *"digital"*

➤ With a wide measuring range offers a precise measurement and determination of refractive index and Brix values of liquid samples.

➤ Portable, light weight, compact design guarantees fast and easy measurements also eliminates the reading errors.

➤ Operation is extremely simple: only with a few drops of sample guarantees fast and reliable measurements.

➤ Zero point check and calibration can be done with water.

➤ LED light source around the prism warns the user during the calibration or measurement process.

➤ Simple and easy to change measuring from % Brix to refractive index. Features with automatic temperature compensation (ATC).

catalogue number	measuring range % Brix	measuring range refractive index	division Brix / RI	ATC
618.32.001	0 - 95	1,3330 - 1,5400	0,1 / 0,0001	yes



➤ Ideal for precise measurement and determination of refractive index and % Brix values of liquid, solid, semi-solid and powder samples. Simple handling and easy to use. Calibration can be done easily with supplied calibration prism.



REFRACTOMETER - *"hand type"*

➤ A practical alternative for practical yet quick measurement of concentrations of liquids.

➤ Portable and hand-held design enables both laboratory and field applications.

➤ Models with automatic temperature compensation are specially suitable for field use.

➤ With focusing eyepiece with soft rubber eyecups for reducing straylight ingress and also avoiding scratches at spectacle lenses.

➤ Calibration is easily done by turning the adjustment screw.

catalogue number	measuring range % Brix	division %	ATC
618.21.001	0 - 10	0,1	yes
618.22.001	0 - 18	0,1	yes
618.23.001	0 - 32	0,2	yes
618.24.001	0 - 80	0,5	no
618.25.001	0 - 90	0,5	no

REFRACTOMETER - *"ABBE"*

➤ Large optical prism enables excellent boundary line brightness and contrast during measurements.

➤ Adjustable wide field eyepiece with 10X magnification, enables bright and clear images. Super contrast, optical system with 30X magnification guarantees sharp images.

➤ Equipped with movable, hinged covers to keep light out. Offers connection possibility to a thermostatic circulator.

➤ Featured with a digital thermometer with a large LCD display. Temperature reading is selectible as °C or °F with a precision of 0,1°C or 0,1°F.

catalogue number	618.41.001
external dimensions (mm)	270 x 180 x 370
refractive index (nD)	1,3000 - 1,7000
dissolved solid Brix (%)	0 - 95
accuracy	± 0,0002
water inlet / outlet Ø (mm)	10
digital thermometer	LCD display - 34 x 14 mm
temperature range (°C)	0 - 70
temperature uniformity (°C)	± 0,1



MICROSCOPE - *"biological"*

- Ideal for academic and clinical research with excellent optical system, outstanding resolution and definition.
- Unique design with backward nosepiece offers larger working space and enables convenient handling.
- Featured with a 360° rotatable binocular head inclined at 30 with interpupillary distance adjustable 50 mm - 75 mm.
- Wide field eyepiece with 10X magnification power, 20mm lens diameter enables bright and clear images
- 4X, 10X, 40X and 100X plan achromatic objectives guarantee net and sharp images.
- NA 1,25 abbe condenser with iris diaphram and filter holder guarantees ideal contrast.
- 142x138 mm square mechanical stage with 76 mm left-right and 55 mm back-forward movement offers easy use.
- Coarse and fine adjustment is enabled with upper limit safety with 0,002 mm fine division and 20 mm maximum moving limit.
- Each rotation of control knob enables 37,7 mm coarse stroke and 0,2 mm fine stroke.
- Featured with a power supply 100 Volt - 220 Volt multi input rating and easily replaceable, super bright and powerful LED illumination with adjustable light power.
- Supplied with dust cover and immertion oil.

catalogue number	*pack quantity*
613.21.001	*1 piece*



Featured with a 360° rotatable binocular head inclined at 30 with interpupillary distance adjustable 50 mm - 75 mm.



Featured with a power supply 100 Volt - 220 Volt multi input rating and easily replaceable, super bright and powerful. LED illumination with adjustable light power.



142x138 mm square mechanical stage with 76 mm left-right and 55 mm back-forward movement offers easy use.



Coarse and fine adjustment is enabled with upper limit safety with 0,002 mm fine division and 20 mm maximum moving limit. Each rotation of control knob enables 37,7 mm coarse stroke and 0,2 mm fine stroke.

MICROSCOPE - *"biological"*

- Ideal for academic and clinical use in biology, pathalogy, histology, virology, immunology, genetics and other related applications.
- Unique design with outward quadruple nosepiece offers larger working space and enables convenient handling.
- Featured with a 360° rotatable binocular head inclined at 30 with interpupillary distance adjustable 50 mm - 75 mm.
- Wide field eyepiece with 10X magnification power, 18 mm lens diameter enables bright and clear images
- 4X , 10X, 40X and 100X achromatic objectives guarantee net and sharp images.
- NA 1,25 abbe condenser with iris diaphragm and filter holder guarantees ideal contrast.
- 125x115 mm square mechanical stage with 73 mm left-right and 33 mm back-forward movement offers easy use
- Coarse and fine adjustment is enabled with upper limit safety with 0,002 mm fine division and 20 mm moving limit
- Each rotation of control knob enables 42,4 mm coarse stroke and 0,2 mm fine stroke.
- Featured with a power supply 100 Volt - 220 Volt multi input rating and easily replaceable, super bright and powerful LED lamp illumination with adjustable light power.
- Supplied with dust cover and immertion oil.



catalogue number	*pack quantity*
613.23.001	*1 piece*



Featured with a 360° rotatable binocular head inclined at 30 with interpupillary distance adjustable 50 mm - 75 mm.



Featured with a power supply 100 Volt - 220 Volt multi input rating and easily replaceable, super bright and powerful LED lamp illumination with adjustable light power.



125x115 mm square mechanical stage with 73 mm left-right and 33 mm back-forward movement offers easy use.



Coarse and fine adjustment is enabled with upper limit safety with 0,002 mm fine division and 20 mm moving limit. Each rotation of control knob enables 42,4 mm coarse stroke and 0,2 mm fine stroke.



MICROSCOPE - *"stereo"*

- Offers ergonomic design, sharp image quality, high resolution and wide field of viewing for academic, industrial and clinical applications.
- Featured with a 360° rotating binocular head inclined at 45 with interpupillary distance adjustable 52 mm - 75 mm.
- Wide field eyepiece with 10X magnification power with 20mm view field enables bright and clear images.
- Adjustable objective with 0,7 X to 4,5X magnification power provides a wide and clear viewing field of 20 mm diameter with zoom ratio of 1:6,4
- Featured with a power supply 100 Volt - 220 Volt multi input rating and easily replaceable, super bright and powerful LED illumination from bottom and overhead.
- Supplied with dust cover, and circular examination glass plate and an additional examination plate with one side black and other side white.

catalogue number	*pack quantity*
613.22.001	*1 piece*



Supplied with an additional examination plate with one side black and other side white.



Featured with a 360° rotating binocular head inclined at 45 with interpupillary distance adjustable 52 mm - 75 mm.



Adjustable objective with 0,7 X to 4,5X magnification power provides a wide and clear viewing field of 20 mm diameter with zoom ratio of 1:6,4



Featured with a power supply 100 Volt - 220 Volt multi input rating and easily replaceable, super bright and powerful. ***LED illumination from bottom.***



Featured with a power supply 100 Volt - 220 Volt multi input rating and easily replaceable, super bright and powerful. ***LED illumination from overhead.***

IMAGE PROJECTOR

- Consists of a scientific research camera with Aptina CMOS sensor for advanced video and image processing.
- Offers excellently clear projection of the images from microscopes to screens and practical photo and video shootings.
- Featured with hardware resolution among 0,35M to 14M and USB 2.0 interface for high speed data transmission.
- Ultra-fine color engine guarantees perfect color reproducibility.
- Other pces are; Maximum resolution: 8.000.000 Pixels / Pixel size: 1,67 µm x 1,67 µm / Dynamic range: 65,2 dB. / SN ratio: 34 dB / Spectral range: 380 – 650 nm / Exposure: 0,38 ms – 2000 ms, ROI Auto & Manual.
- Sturdy zinc aluminium housing for a very long life cycle.

catalogue number	pack quantity
613.31.001	1 piece











Very easy to use; first remove the eyepiece from the ocular tube. Then screw the image projector to the eyepiece and insert the eyepiece to the ocular tube.

LENS CLEANING TISSUES

- Manufactured from very thin best quality paper based on %100 manile fibre. Cut with dimensions 100 x 150 mm.
- Guarantees fast and very effective cleaning of spectacles, googles, microscope objectives, binoculars and all similar optical lens involved items.
- Never leaves any fibres or dust on the cleaned surface.
- These papers never stratches and damages the surfaces. They guarantee non-abrasive cleaning.
- Supplied in a handy booklet of 100 tissue sheet for hygienic storage and for easy dispensing.





Other technical specifications and details kindly visit our catalogue page no 206.





BLOOD COUNTING CHAMBERS

- Manufactured from special optical glass according to DIN 12847 standard.
- It is possible to count different types of cells such as leukocyte, erythrocytes with simple methods under a microscope.
- Tolerance of the depth of the chamber does not exceeds 2 %.
- Counting grids are engraved into two polished surfaces at the central station.
  - **"Neubauer - improved" chamber** with grid consists of 3 x3 large squares with areas of 1 mm2 each.
- **Alternative 2 chambers:**
  - **"Thoma - new" chamber** with 0,1 mm depth. The grid covers an area of 1,1 x 1,1 mm2.
- Supplied in a polystrene box together with two haemocytometer cover glasses.

catalogue number	product descriptions	pack quantity
075.03.001	Neubauer Improved	1 piece
075.03.002	Thoma - New	1 piece

COVER GLASSES - *"for counting chambers"*



- Manufactured from special optical glass with ground and polished edges.
- These cover glasses are used to cover specimens in counting chambers.
- With their excellent flat surfaces they adhere perfectly on the chambers and define the volume of the cell suspention over the counting grid.
- Their substential thickness of 0,4 mm offers perfect results without bending under capillary forces.
- Their practical dimensions of 20 x 26 mm enables use with amost chamber types.

catalogue number	pack quantity
075.04.001	10 pieces

CELL COUNTER - *"mechanical"*

- Multi use mechanical counter with maximum counting capacity up to 9999 for counting blood cells, bacterial colonies, drops of liquids, or any repetitive action.
- Featured a quick reset knob, lens window for easy reading, and finger ring for a secure grip.
- Sturdy and chrome finished metal housing offers long life cycle.



catalogue number	pack quantity
081.14.002	1 piece



CELL COUNTER - *"digital"*

- Multi-use digital counter with maximum counting capacity up to 9999 for counting blood cells, bacterial colonies, drops of liquids, or any repetitive action.
- Featured a quick reset knob, lens window for easy reading, and finger ring for a secure grip.
- Sturdy and chrome finished metal housing offers long life cycle.

catalogue number	pack quantity
081.14.001	1 piece

COVER GLASSES



- Manufactured from optical grade, hydrolic 1 class borosilicate glass according to DIN ISO 8255 standard.
- Fully automatic production cycles ensure dust-free, absolutely clean cover glasses with excellent flatness and smooth surfaces.
- With their thickness varying 0,13 mm - 0,17 mm they guarantee perfect clearness.
- Their edges are cut with highest precision assuring flawless results.
- **Alternative 2 glasses:**
  - **economical quality cover glasses**
  - **superior quality cover glasses**

dimensions	economic quality	box quantity	superior quality	box quantity	pack quantity
18 x18 mm	075.00.001	10 packs	075.01.001	10 packs	100 pcs
20 x 20 mm	075.00.002	10 packs	075.01.002	10 packs	100 pcs
22 x 22 mm	075.00.003	10 packs	075.01.003	10 packs	100 pcs
24 x 24 mm	075.00.004	10 packs	075.01.004	10 packs	100 pcs
24 x 32 mm	075.00.005	10 packs	075.01.005	10 packs	100 pcs
24 x 50 mm	075.00.006	5 packs	075.01.006	10 packs	100 pcs
24 x 60 mm	075.00.007	5 packs	075.01.007	10 packs	100 pcs

SLIDES



- Manufactured from optical grade, hydrolic 3 class soda lime glass according to DIN ISO 8037-1 standard.
- Fully automatic production cycles ensure dust-free, absolutely clean cover glasses with excellent flatness and smooth surfaces.
- With their extremely flat pre-cleaned surfaces free of dust and oil and their 1 mm thickness they assure flawless results.
- **Alternative 2 slides:**
  - **economical quality cover glasses**
  - **superior quality cover glasses**
- Superior quality color coded slides has ground edges with 45° edge angle.
- Color coded with 5 different colors enables fast, easy identification.

Superior quality color coded slides with 5 different colors provide easy identification of samples.



Superior quality slides have ground edges with 45° edge angle.



economic quality	superior quality	product descriptions	edge angle	color code	pack quantity	box quantity
075.05.001		Cut edges, Plain	90° Degree	-----	50 pieces	50 pack
075.05.002		Cut edges, Frosted one end one side	90° Degree	-----	50 pieces	50 pack
075.05.003		Ground edges, Plain	90° Degree	-----	50 pieces	50 pack
075.05.004		Ground edges, Frosted one end two side	90° Degree	-----	50 pieces	50 pack
	075.02.005	Ground edges, Color Frosted	45° Degree	white	50 pieces	50 pack
	075.02.006	Ground edges, Color Frosted	45° Degree	yellow	50 pieces	50 pack
	075.02.007	Ground edges, Color Frosted	45° Degree	green	50 pieces	50 pack
	075.02.008	Ground edges, Color Frosted	45° Degree	pink	50 pieces	50 pack
	075.02.009	Ground edges, Color Frosted	45° Degree	blue	50 pieces	50 pack





Clear hinged covers protect the slides from enviromental effects and offer clear visibility of the slides.

SLIDE WALLETS - *"polystyrene"*

- Manufactured from thick and robust polystrene with 20 pieces slide capacity.
- Consists of 2 parts: A base for slide compartments and two folding covers.
- Slide compartments have finger slots for easy removal of slides.
- Once the covers are closed the wallet interior is protected from dust and other environmental effects.
- Covers can be folded and hided under the base for easier handling of the slides.
- Clear covers offer visual visibility of the slides placed in wallet interior.
- Unique recessed design of the slide compartments avoid the risk of covers touching the slides.
- Alphanumerical index on slide rows enables easy identification of slide positions.
- Printed marking area on side walls of the covers enables easy marking and labelling.
- Over all dimensions of the cardboard slide wallets are: 194 x 292 x 13 mm.

catalogue number	base color	pack quantity
076.01.002	white	1 piece

Removal of the slides are done easily by pressing the edge of the slide which lifts the other side of the slide.





For easy access to slides, simply swing the transparent hinged cover behind the slide folder base.



Different color option offers easy slide classification and minimize the possiblity of sample mix-up.





Removal of the slides are done easily by pressing the edge of the slide which lifts the other side of the slide.

SLIDE WALLETS - *"cardboard"*

- Manufactured from thick and robust cardboard with 20 pieces slide capacity.
- Consists of 2 parts: A base for slide compartments and two folding covers.
- Unique recessed design of the slide compartments avoids the risk of covers touching the slides.
- Alphanumerical index on slide rows enables easy identification of slide positions.
- Printed marking area on side walls of the covers enables easy marking and labelling.
- Slide compartments have finger slots for easy and fast removal of the slides.
- Cardboard hinged covers protect the slides from enviromental effects.
- Over all dimensions of the cardboard slide wallets are: 205 x 340 x 10 mm.

catalogue number	rack color	pack quantity
076.01.001W	white	1 piece
076.01.001B	blue	1 piece
076.01.001R	red	1 piece
076.01.001Y	yellow	1 piece
076.01.001G	green	1 piece

SLIDE WALLET RACK



- Manufactured from thick and robust acrylic for easy and safe storage of 5 slide wallets.
- Unique design providing easy insertion and removal of the slide wallets also protects the wallet interior from enviromental effects.
- Easily stackable due to the body form for reducing storage space.

catalogue number	dimensions	pack quantity
076.01.003	205 x 340 x 100 mm	1 piece



Easily stackable for reducing storage space.



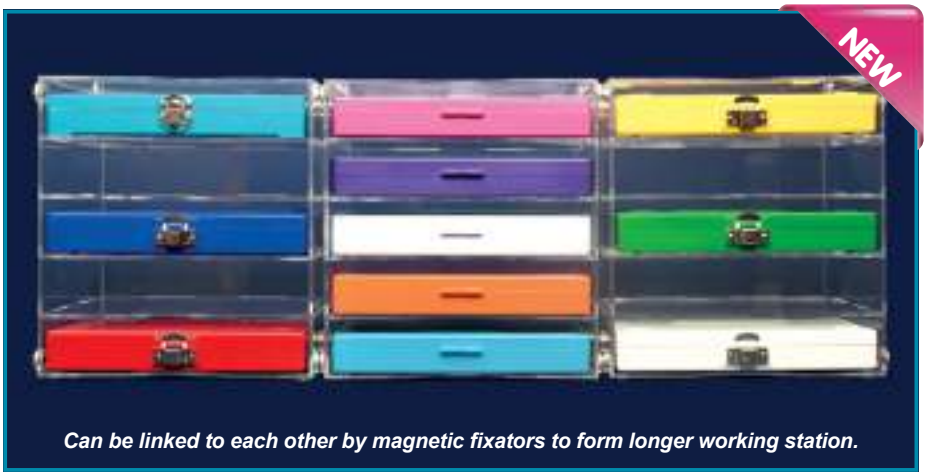
SLIDE BOXES
"with hinged lid"

- Manufactured from robust polypropylene providing perfect storage and transportation of slides.
- Moulded grooved slide slots hold the microscope slides at the position.
- Hinged lid offers safe closing and easy opening. Once the lid is closed the box interior is protected from dust and other enviromental effects.
- Slide slots featured with numerical index offer coordinative use with the slide inventory sheet placed inside the lid.
- Easily stackable for reducing storage space at laboratories.


Different color options offers easy slide classification and minimize the possiblity of sample mix-up.

slide box for 25 slides	slide box for 50 slides	slide box for 100 slides	box color	pack quantity
076.02.000W	076.02.001W	076.02.002W	white	1 piece
076.02.000B	076.02.001B	076.02.002B	blue	1 piece
076.02.000P	076.02.001P	076.02.002P	purple	1 piece
076.02.000R	076.02.001R	076.02.002R	ruby	1 piece
076.02.000O	076.02.001O	076.02.002O	orange	1 piece

SLIDE BOX CABINET

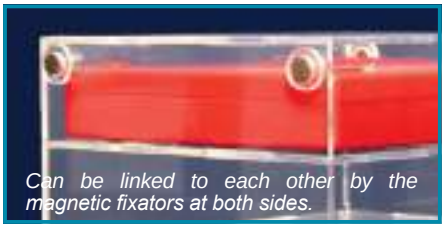


Can be linked to each other by magnetic fixators to form longer working station.



- Manufactured from clear acrylate with 5 slide box holding compartment.
- They offer practical solutions for storing the slide boxes on top of each other.
- Can be linked to each other by magnetic fixators to form longer working station.
- Also can be placed on top of each other for space saving purpose.

catalogue number	dimensions WxLxH	pack quantity
076.02.101	235x175x245 mm	1 piece


Can be linked to each other by the magnetic fixators at both sides.

SLIDE BOX - *"with steel latch"*

- Manufactured from robust ABS providing perfect storage and transportation option of slides.
- Moulded grooved slide slots hold the microscope slides at the position.
- Hinged lid offers safe closing and easy opening. Once the lid is closed the box interior is protected from dust and other enviromental effects.
- The steel latch guarantees the tight hold of the closed lid.
- Soft cork lining at the bottom of the box ensures slide safety and minimize the risk of breakage.
- Easily stackable with stacking feet for reducing storage space.
- Different color options offer easy slide classification and minimize the possiblity of sample mix-up.
- Both the linings and the slide slots featured with numerical index offer coordinative use with the slide inventory sheet placed inside the lid.



Different color options offer easy slide classification and minimize the possiblity of sample mix-up.



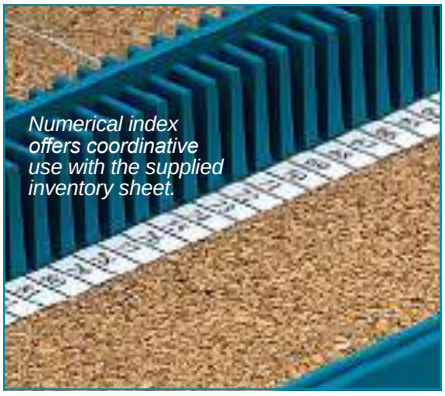
catalogue number	slide capacity	box color	pack quantity
076.02.012W	100 slides	white	1 piece
076.02.012B	100 slides	blue	1 piece
076.02.012R	100 slides	ruby	1 piece
076.02.012P	100 slides	purple	1 piece
076.02.012O	100 slides	orange	1 piece



The steel latch guarantees safe closing and the tight hold of the closed lid.



Soft cork lining at the bottom ensures slide safety and prevents breakage risks.



Numerical index offers coordinative use with the supplied inventory sheet.

INVENTORY SHEETS - *"for hinged lid boxes"*



- Manufactured from thick paper with alphanumerical index.
- Offers practical use for indexing the slides.

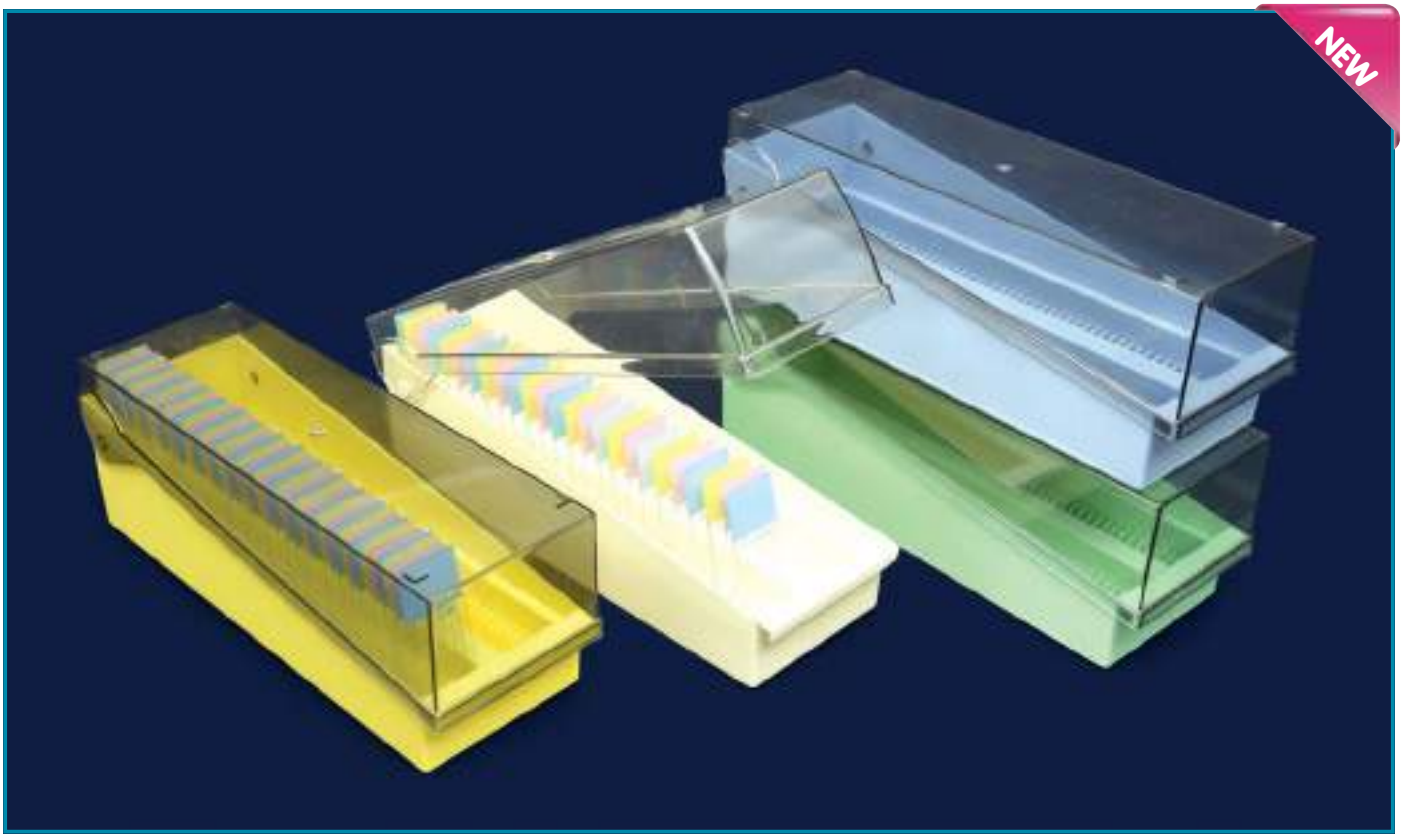
catalogue number	box type	pack quantity
076.02.201	25 slides	50 pieces
076.02.202	50 slides	50 pieces
076.02.203	100 slides	50 pieces

INVENTORY SHEETS - *"for steel latch box"*



- Manufactured from thick paper with alphanumerical index.
- Offers practical use for indexing the slides.

catalogue number	pack quantity
076.02.204	50 pieces



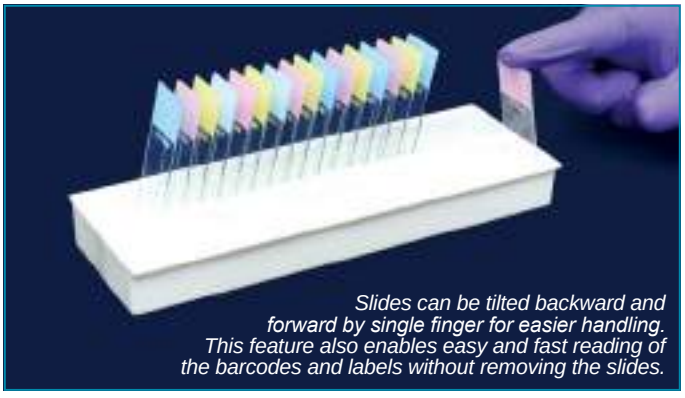
SLIDE MAGAZINE

- System consists of a box with lid and a removable tray.
- Both body, tray and the lid is manufactured from polystyrene.
- Offers most convenient, organised and versatile way of storing standard microscope slides.
- System consists of a slide box and a removable tray manufactured from polystrene.
- Can hold 50 slides as standard. Also can store 100 slides if the slides are placed back-to-back at the slide compartment lots.
- All slides are stored upright position for easy handling.
- Slides can be tilted backward and forward by single finger for easier handling and for pick up the selected one.
- This feature also enables easy and fast reading of the barcodes and labels without removing the slides.
- Removable tray can be taken out from the magazine box for easier handling.
- Lid can be folded 180 angle enabling easy handling of the slides.
- A hinged clear lid offers visual visibility of the slides placed in slide magazine.
- Once hinged lid is closed the magazine interior is protected from dust and other enviromental effects.
- Different color options offer easy slide classification and minimize the possiblity of sample mix-up.
- Alphanumerical index on slide rows enables easy identification of slide positions.
- Featured with a frosted write on area at the front side of the lid.
- 2 index cards numbered are supplied with each magazine.

catalogue number	dimensions	base color	pack quantity
076.03.001W	85x245x85 mm	white	1 piece
076.03.001B	85x245x85 mm	blue	1 piece
076.03.001Y	85x245x85 mm	yellow	1 piece
076.03.001G	85x245x85 mm	green	1 piece



Removable tray can be taken out from the magazine box for easier handling. Alphanumerical index on slide rows enables easy identification of slide positions.



Slides can be tilted backward and forward by single finger for easier handling. This feature also enables easy and fast reading of the barcodes and labels without removing the slides.



SLIDE MAILERS

- Manufactured polypropylene for storing and shipping of slides.
- Flat mailers can carry 1 or 2 or 3 slides depending on the type.
- Easy-to-close snaps hold the mailers always securely closed while keeping the interior away from dust, moisture and other enviromental effects.
- Box mailer with slotted channels can hold 5 slides separated from each other.
- The hinged lid protects the mailer interior from dust and other enviromental effects.

catalogue number	slide capacity	L x W x H	pack quantity	box quantity
076.05.001	1 slide	42x83x5 mm	1 piece	100 pieces
076.05.002	2 slides	70x83x5 mm	1 piece	100 pieces
076.05.003	3 slides	99x83x5 mm	1 piece	100 pieces
076.05.004	5 slides	28x16x81 mm	1 piece	100 pieces



FORCEPS - *"for cover glass"*

- Manufactured from high quality, chemical and corrosion resistant 304 grade stainless steel.
- Most commonly used forceps for handling cover glasses. Robust and seamless construction guarantees long life cycle.
- Grid lines on the middle part of the body enable easy handling.
- **Alternative 2 forceps:**
  - **Curved form end**
  - **Straight form end**

Other technical specifications can be seen at catalogue page no 91.

SLIDE DISPENSER

- Side compartment can hold 90 standard microscope slides with 26 x 76 mm dimensions.
- Each turn of control knobs placed on both side pushes a single slide from the reservoir bottom.
- Clear front panel offers visual visibility of the slides placed in slide dispenser.
- For better performance only dry slides should be placed into the dispenser.



catalogue number	dimensions	pack quantity
076.04.001	112 x 121 x 162 mm	1 piece



PETRI DISHES - *"glass"*

- Manufactured from heat resistant glass with counter sinking process which guarantees bubble-free dishes.
- Lids perfectly fit to the body enabling easy handling.
- Extremely flat bottom base guarantees an even media dispersion and uniform cell growth.
- Fire polished body and lid edges enable safe use by reducing the risk of breakage.

catalogue number	diameter	height	pack quantity
081.01.060	60 mm	15 mm	18 pieces
081.01.080	80 mm	15 mm	18 pieces
081.01.100	100 mm	20 mm	18 pieces
081.01.120	120 mm	20 mm	18 pieces
081.01.150	150 mm	25 mm	18 pieces









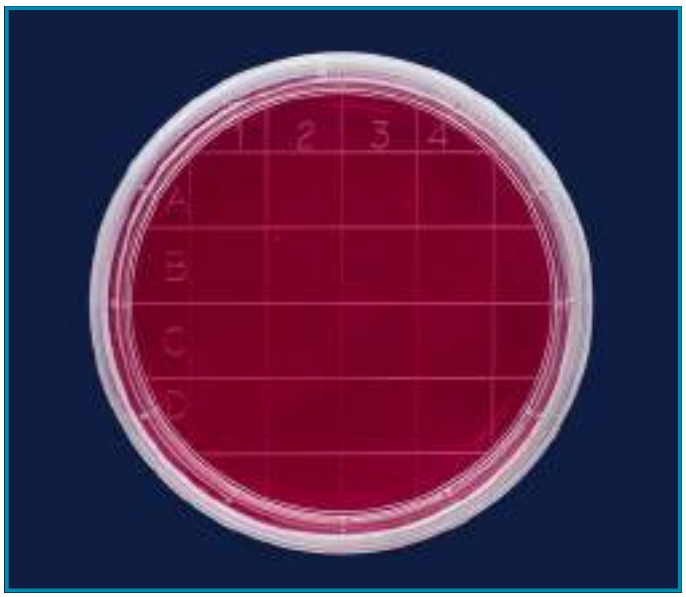
PETRI DISHES - *"polystyrene" - "sterile"*

- Manufactured from optically clear, transparent polystyrene for multiple use in microbiology and bacteriology.
- Manufactured by fully automatic, human touch free machines.
- Ideal body form guarantees excellent use with automatic filling machines.
- Vented lids enable consistent and effective practice.
- **Alternative 2 dishes:**
  - **Aseptic petri dishes**
  - **Sterile petri dishes**
- Aseptic petri dishes are manufactured in germ-free, class 10.000 sterile production areas with extreme sterility control.
- Sterile petri dishes are manufactured in germ-free, class 10.000 sterile production areas and then resterilized by gamma irradiation.
- Sterile petri dishes are supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.

clean room procuced	diameter x height	section	pack quantity	box quantity
081.02.061	60 x 15 mm	1 section	10 pieces	500 pieces
081.02.091	90 x 17 mm	1 section	20 pieces	500 pieces
081.02.092	90 x 17 mm	2 section	20 pieces	500 pieces
081.02.093	90 x 17 mm	3 section	20 pieces	500 pieces
081.02.094	90 x 17 mm	4 section	20 pieces	500 pieces
081.02.121	120 x 17 mm	1 section	20 pieces	500 pieces

gamma sterilized	diameter x height	section	pack quantity	box quantity
081.02.161	60 x 15 mm	1 section	10 pieces	500 pieces
081.02.191	90 x 17 mm	1 section	20 pieces	360 pieces
081.02.192	90 x 17 mm	2 sections	20 pieces	360 pieces
081.02.193	90 x 17 mm	3 sections	20 pieces	360 pieces
081.02.194	90 x 17 mm	4 sections	20 pieces	360 pieces
081.02.221	120 x 17 mm	1 section	20 pieces	400 pieces

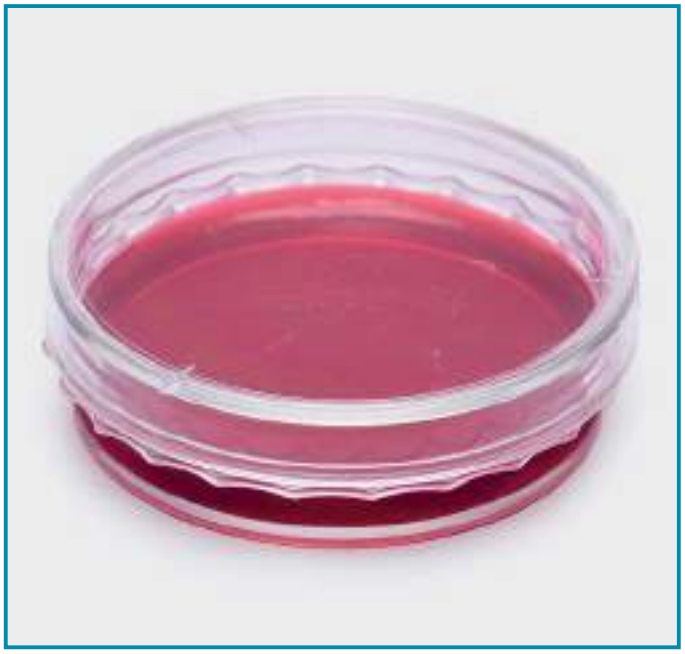
PETRI DISHES - *"contact" - "rodac"*



- Manufactured from optically clear, transparent polystyrene for determining bacterial contamination of surfaces such as the skin and all other surfaces. Also facilitates the counting of colonies.
- Manufactured by fully automatic, human touch free machines. Ideal body form guarantees excellent use with automatic filling machines.
- Featured with a moulded grid at the bottom which enables the identification of the detected contamination / cm2.
- **Alternative 2 dishes:**
  - **Aseptic petri dishes**
  - **Sterile petri dishes**
- Aseptic petri dishes are manufactured in germ-free, class 10.000 sterile production areas with extreme sterility control.
- Sterile petri dishes are manufactured in germ-free, class 10.000 sterile production areas and then resterilized by gamma irradiation.
- Sterile petri dishes are supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.

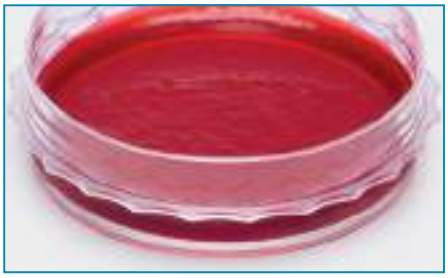
clean room procuced	gamma sterilized	diameter x height	pack quantity	box quantity
081.04.060	081.04.160	66 x 15 mm	10 pieces	500 pieces

PETRI DISHES - *"for cell culture" - "sterile"*



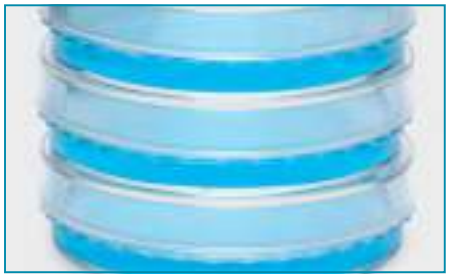
- Manufactured from optically clear, transparent polystyrene specially for cell culture practices.
- Production is done by fully automatic, human touch free machines. Ideal body form guarantees excellent use with automatic filling machines.
- Manufactured in germ-free, class 10.000 sterile production areas and then resterilized by gamma irradiation.
- Supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.
- External grip edges in the gripping ring prevent accidental dropping of the dish bottom.
- Stacking ring on the lid and the corresponding base part guarantees secure stacking option.
- Surface treated uniform flat growth surface guarantees excellent suspension for cultures.

catalogue number	diameter	height	growth area	working volume	surface treatment	external grip	pack quantity	box quantity
120.03.035	35 mm	10 mm	9.4 cm2	3 ml	yes	yes	10 pieces	500 pieces
120.03.060	60 mm	15 mm	21.5 cm2	5 ml	yes	yes	10 pieces	500 pieces
120.03.090	100 mm	20 mm	55.0 cm2	12.5 ml	yes	no	10 pieces	200 pieces



External grip edges around the bottom part of the dish offer easy and safe handling.

Stacking ring on the lid and the corresponding base part guarantees secure stacking option.





PETRI DISH STAND

- Petri dish stand is very useful during inoculation, incubation and storage.
- Visibility from all sides enables the culture to be observed during incubation.
- Safely transports, incubates and stores petri dishes. Also helps streamline benchtop sample processing.
- Center divider provides space for labelling. Holes on the upper part enable easy grip by fingers for safe transportation.

catalogue number	for petri dish Ø	dish capacity	pack quantity
081.03.060	60 mm	56	1 piece
081.03.090	90 mm	60	1 piece





PETRI DISH STAND

- Manufactured from acrylic for safe storing, transportation of petri dishes. Also very useful during inoculation and incubation.
- Also provides steamline benchtop sample processing and protects petri dishes from dust, moisture and other environmental effects.
- Center divider provides space for labelling and incorporates buit in finger grip for easy handling. Can be linked to each other by the magnetic fixators at both sides.

catalogue number	for petri dish Ø	dish capacity	pack quantity
081.13.060	60 mm	30	1 piece
081.13.090	90 mm	60	1 piece

PETRI DISH BASKET - *"st. steel"*

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Ideal tool for transportation and autoclaving of petri dishes.

catalogue number	for petri dish Ø	dish capacity	pack quantity
081.20.001	100 mm max.	15	1 piece

SEALING TAPE

- Perfect tool to protect petri dish interior contents from dust, moisture and other environmental effects. Waterproof, chemically inert.

Other technical specifications can be seen at catalogue page no 120.



COLONY COUNTER

- Ideal for fast and practical manual counting of colonies on any agar in petri dishes. The versatile unique design accepts petri dishes from 40 mm to 100 mm.
- Intelligent counter with LED digitron display allows fast and precise count of the colonies between 0 - 999. Numericals on the counter can be adjusted backward and forward manually.
- Featured with a 90 mm diameter magnifier attached to a goose neck, flexible holder.
- Flexible holder enables both magnifying lens position and illumination angle adjustable in multiangular axes.
- High quality magnifier with 3x / 9x magnification power provides distortion free images with edge-to-edge sharpness.
- Two LED lights under the magnifier provide super bright overhead illumination for more accurate count.
- 115 mm diameter counting plate allows practical use of dishes up to 100 mm diameter.
- 1 square centimeter cross sectional template of the counting plate guarantees reliable counting.
- Counting table is featured with a backward LED illumination with variable light control.
- Circular LED illumination system offers a shadow and flicker free illumination without heat development with optimal concentration of light.
- Marking is done by a “felt pin pen” which is connected to the system by cable.



catalogue number	for petri dishes	external dimensions	pack quantity
603.11.001	40 - 100 mm dia.	210 x 255 x 160 mm	1 piece



Circular LED illumination system offers a shadow and flicker free illumination without heat development with optimal concentration of light.

1 square centimeter cross sectional template of the counting plate guarantees reliable counting.



High quality magnifier with 3x / 9x magnification power provides distortion free images with edge-to-edge sharpness.

Two LED lights under the magnifier provide super bright overhead illumination.



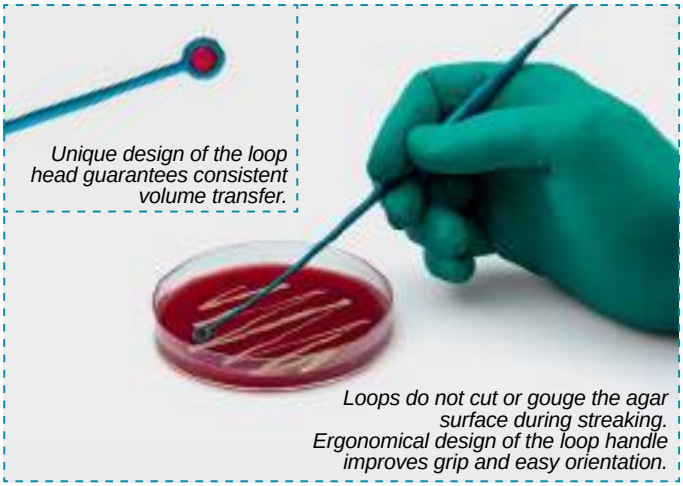
Marking is done by a “felt pin pen” which is connected to the system by cable.

Intelligent counter with LED digitron display allows fast and precise count of the colonies between 0 - 999.

INOCULATION LOOPS - *"HIPS" - "sterile"*



- Manufactured from HIPS in germ-free, class 10.000 sterile production areas.
- Supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.



Unique design of the loop head guarantees consistent volume transfer.

Loops do not cut or gouge the agar surface during streaking. Ergonomical design of the loop handle improves grip and easy orientation.

- Highly flexible body form enables comfortable and efficient planting and avoids streaking of cultures.
- Anti-static property of the raw material eliminates problems caused by electrostatic effects and guarantees consistent complete liquid transfer.
- Hexagonal loop shaft improves grip, assists orientation and makes diluting and streaking easy.
- Hexagonal loop handle also enables orientation of the loop head with a fixed angle.
- Ultra smooth loop surfaces allow easy streaking and offer problem-free planting without the risk of cutting or gauging the agar surface.
- Double use loops have one side a fine tip specially designed for holding, transporting and counting colonies. The loop at the other for streaking in petri dishes.
- Color coded loops enable fast, easy and practical identification of loop type.

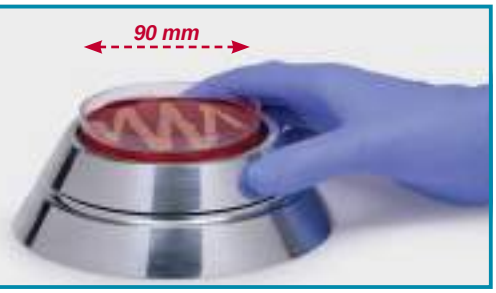
catalogue number	loops specification	loop color	pack quantity	box quantity
082.01.001	one end needle / one end 1 µl	light blue	10 pieces	1000 pieces
082.01.002	one end needle / one end 10 µl	blue	10 pieces	1000 pieces
082.01.003	one end 1 µl / one end 10 µl	dark blue	10 pieces	1000 pieces

INOCULATING TURNTABLE

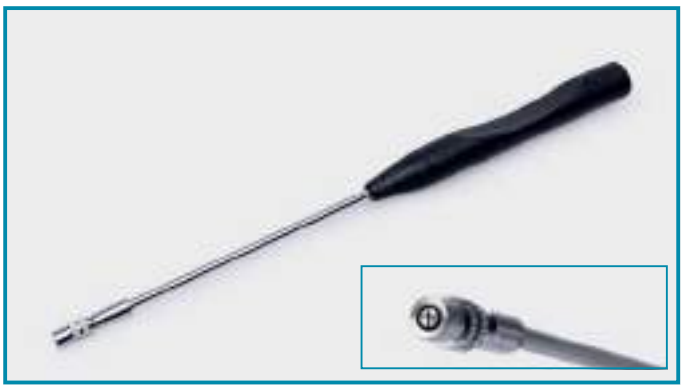
- Light weight but robust body manufactured from aluminium and featured with non-skid feet.
- Manually operated turntable guarantees smooth and easy rotation on both directions. Also enables easy and fast allocation of bacteria across petri dish surface.
- Double sided construction accomodates petri dishes from 60 to 150 mm diameter by inverting the turntable.
- Ball bearings provide a smooth and effortless spinning ensuring rapid inoculation steps and extended operation life.
- The silicone pad holds the petri dishes firmly and keeps the dish allways in center position during inoculation steps.
- The non-skid pad can easily be removed for fast and efficient cleaning.

catalogue number	pack quantity
081.10.001	1 piece

Turntable can rotate 360 degree around it's axis enabling smooth and easy inoculation.







INOCULATION LOOP HANDLE

- The loop shaft is manufactured from nickel plated brass.
- The shaft of the loop handle is insulated by PVC for further protection of user against heat.
- Featured with a screw fastening end for tight fastening of the loops used.
- Handle guarantees easy holding option and fatigue-free application.

catalogue number	length	pack quantity
082.02.003	200 mm	1 piece





INOCULATION LOOP - *"stainless steel"*

- These durable loops are manufactured from nickel-chrome metal wire with twisted wire strands.
- Highly flexible body form enables comfortable and efficient planting and avoids streaking of cultures.
- Ultra smooth loop surfaces allow easy streaking and offer problem-free planting without the risk of cutting or gauging the agar surface.
- Can be heated up to 1200°C and can be cooled rapidly after heat sterilisation.

catalogue number	length	pack quantity
082.02.001	50 mm	10 pieces

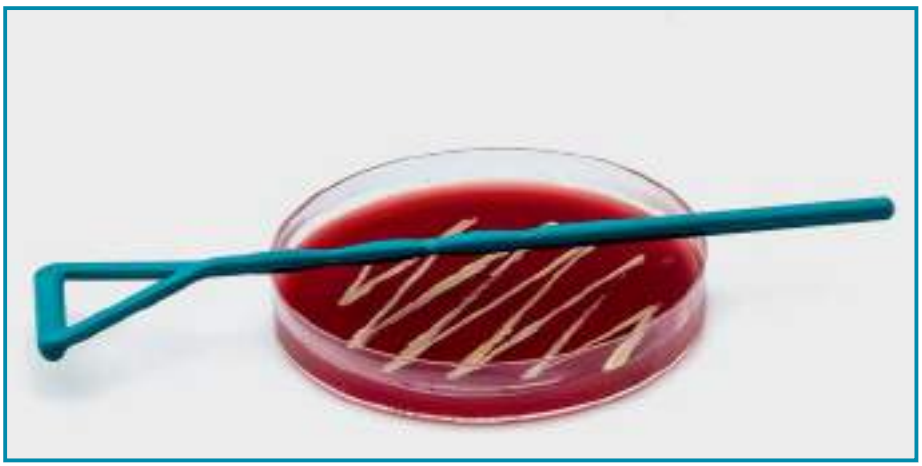
INFRARED STERILIZER

- Most suitable and efficient tool for sterilisation of inoculation loops, needles etc.
- Ideal for laboratories, clean rooms and safety cabinets where the use of gases and open flames are not permitted or restricted.
- The small footprint and ergonomic design makes the sterilizer an ideal instrument for anaerobic and aerobic chambers.
- The heating element is made from wear resistant ceramic core element which quickly reaches it's optimal temperature of 850°C.
- The heating element is safely enclosed in perforated stainless steel guard chamber.
- After reaching the maximum temperature the sterilisation chamber cools down and stabilises at optimal sterilisation temperature of 816°C.
- Complete sterilisation ends within maximum 5 to 7 seconds A stainless holder provides a stable hold of the objects that will be sterilised.



A stainless steel holder provides a stable hold of the loop handle during sterilisation.
Catalogue No: 081.15.101

catalogue number	dimensions	sterilizer length	max. diameter of sterilized object	power	weight	pack quantity
081.15.001	185 x 100 x 190 mm	150 mm	14 mm	170 W	1,30 kg	1 piece



CELL SPREADER - *"HIPS" - "sterile"*

- Manufactured from HIPS in germ-free, class 10.000 sterile production areas.
- Supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.
- Ultra smooth, edgeless designed, triangular spreading head allows easy and problem-free spreading without the risk of cutting or gauging the agar surface.
- Highly flexible body form enables comfortable and efficient spreading and avoids streaking of cultures.
- Rippled designed ergonomic handle improves gripping efficiency and assists easy orientation of the spreader head.
- Handle flexes slightly under pressure allowing the triangular head for perfect,evenly distributed and uniform pressure on the agar surface.



Handle flexes slightly under pressure allowing the triangular head for perfect,evenly distributed and uniform pressure on the agar surface.

- Individually single packed with lot number, production date and expiry date printed on the package.

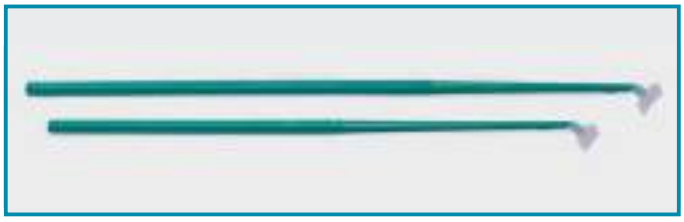
catalogue number	pack quantity	box quantity
082.03.001	1 piece	100 pieces



CELL SPREADER - *"stainless steel"*

- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Robust and seamless construction guarantees long life cycle. Smooth polished surfaces provide fast and easy cleaning.
- Smooth, rounded surfaces prevent any cutting or gouging of agar surface during application.
- Triangular formed spreader head enables even spreading of liquid samples all over the surface.
- Suitable for sterilization by autoclaving or by direct flame.

catalogue number	triangular bar width	handle length	pack quantity
082.03.003	32 mm	190 mm	1 piece



CELL SCRAPERS - *"for cell culture" - "sterile"*

- Specially designed to facilitate collection of attached cells on culture dishes.
- Manufactured in germ-free, class 10.000 sterile production areas and then resterilised by gamma irradiation.
- Supplied with a certificate as a guarantee of **"DNase, RNase & pyrogen free"** product.
- Scraper blade rotates around the it's axis enabling easy and flexible applications.
- The rotating blade also guarantees the efficient collection of cells from any angle.
- Ultra smooth blade surfaces offer problem-free collection without the risk of cutting or gauging the agar surface.
- Hexagonal shaft improves grip, assists orientation and makes diluting and streaking easy.
- Hexagonal handle also enables orientation of the loop head with a fixed angle. Individually single packed with lot number, production date and expiry date printed on the package.

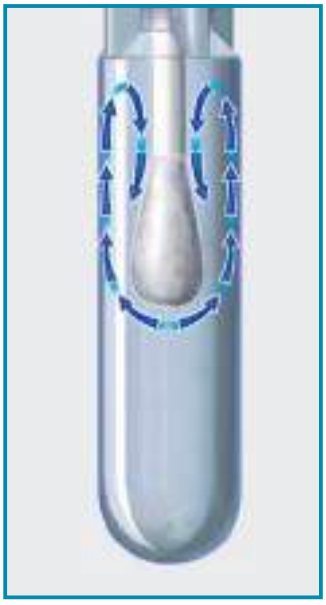
Other technical specifications can be seen at catalogue page no 325.

SWABS - *"sterile"*

- Manufactured in germ-free, class 100.000 sterile production areas and then plain swaps are resterilized by E.O. and swaps with medium are resterilized by gamma irradiation.
- Swab tube made from polypropylene with 5 ml deep gel column guarantees maximum protection and significantly improves sample viability.
- Tube has a unique "venturi hour" design which prevents disintegration or breakdown of gel column during specimen transport.
- Once the swab is inserted undesirable bubbles and breaks in gel automatically squeeze out and eliminates air pockets which are harmfull to some bacterias.
- Unique "venturi hour" tube design centralizes the swab and optimizes the moisture control.
- Tubes conveniently fit regular test tube racks for safe transport and easy storage.
- 133 mm long swab shafts guarantee access to difficult sampling locations without contaminating the swab handle or the user.
- Soft swab tips are inert and non-toxic to micro-organisms and patients.
- Double action cap slides over the neck of swab tube and tightly grips the inside and outside of the tube.
- Individually single packed with lot number, production date and expiry date printed on the sticker.
- The label seals the swab tube including the cap of the swab acting like a tamper evident system. Tube seal maintains product integrity and ensures first time use.

catalogue number	*swab descriptions*	*pack quantity*
086.02.001	*without medium*	*100 pieces*
086.02.002	*with stuart medium*	*100 pieces*
086.02.003	*with amies medium*	*100 pieces*
086.02.004	*with carry blair medium*	*100 pieces*





The unique "venturi hour" design which prevents disintegration or breakdown of gel column during specimen transport.

"Venturi hour" tube design also centralizes the swab and optimizes the moisture control.

Once the swab is inserted undesirable bubbles and breaks in gel automatically squeeze out and eliminates air pockets which are harmfull to some bacterias.





STAINING JARS
"Schifferdecker"

- Manufactured from heavy walled soda glass for holding microscope slides horizontally.
- Supplied together with a glass lid.
- Offers space for 10 individual microscope slides or 10 pairs of slides adjacently back-to- back.

catalogue number	dimensions	pack quantity
073.03.001	87x74x40 mm	1 piece



STAINING JARS
"Hellendahl"

- Manufactured from heavy walled soda glass for holding microscope slides vertically.
- Supplied together with a glass lid.
- Offers space for 8 individual microscope slides or 8 pairs of slides adjacently back-to- back.

catalogue number	dimensions	pack quantity
073.01.001	60x60x105 mm	1 piece



STAINING JAR
"macro"

- Manufactured from heavy walled soda glass for using with a stainless steel slide holding rack.
- Supplied with a lid that provides safe closure of the jar content during non-use.
- Stainless steel staining rack is not supplied together with the jar.

catalogue number	dimensions	pack quantity
073.05.001	105x90x75 mm	1 piece



TISSUE BASE MOULDS

- Manufactured from stainless steel for easy removal of paraffin inclusions.
- They enable easy and precise positioning of the specimens during application.

tissue base mold	external dimensions	internal dimensions	specifications	pack quantity
074.07.001	55 x 38 x 10 mm	7 x 7 x 6 mm	biopsy & hystology	5 pieces
074.07.002	55 x 38 x 10 mm	15 x 15 x 6 mm	biopsy & hystology	5 pieces
074.07.003	55 x 38 x 10 mm	37 x 24 x 6 mm	standard	5 pieces



STAINING JAR RACK

- Manufactured from stainless steel to hold and carry microscope slides.
- Featured with inserts that can hold 20 single slides in horizontal position.
- Long handle offers easy and safe hold.

catalogue number	dimensions	pack quantity
073.06.001	85x70x20 mm	1 piece

EMBEDDING CASSETTES - *"without lid"*





- Manufactured from POM which is fully resistant to histological solvents.
- The unique design allows perfect fit to all microtome chuck adapters.
- Slanted marking area on front side enables easy marking and labelling.

casette without lid	color	pack quantity	box quantity
074.01.001	white	500 pieces	5000 pieces
074.01.002	yellow	500 pieces	5000 pieces
074.01.003	green	500 pieces	5000 pieces
074.01.004	pink	500 pieces	5000 pieces
074.01.005	blue	500 pieces	5000 pieces

CASSETTE LID

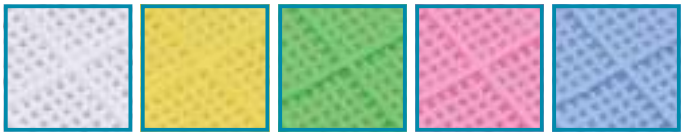


- Manufactured from high quality, chemical and corrosion resistant AISI 304 grade stainless steel.
- Perforated surface offers the optimal liquid diffusion.
- The body form fits perfectly to the casettes and guarantees tight closure.

catalogue number	pack quantity
074.02.001	5 pieces

EMBEDDING CASSETTES - *"with lid"*





- Manufactured from POM which is fully resistant to histological solvents.
- **Alternative 2 cassettes:**
  - **Histology casettes with rectangular openings**
  - **Biopsy casettes with square openings**
- The unique design allows perfect fit to all microtome chuck adapters.
- The efficient flow-through slots maximize the liquid exchange and also ensure proper drainage.
- The unique design of the lids can be opened and closed as often as necessary without getting loose.
- Lids allways relock securely without any risk of specimen loss.
- Slanted marking area with 45° angled on front side enables easy marking and labelling.
- Histology casettes with rectangular openings provide maximum liquid exchange and does not require use of a pad.
- Biopsy casettes with aquare openings provide maximum liquid exchange and does not require use of a pad.

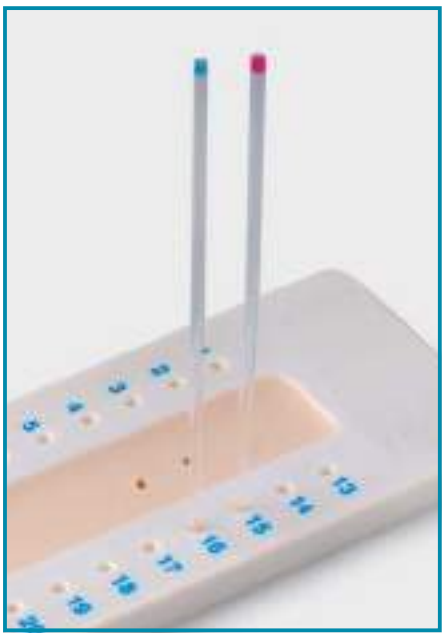
casette hystology	casette biopsy	color	pack quantity	box quantity
074.03.001	074.04.001	white	500 pieces	5000 pieces
074.03.002	074.04.002	yellow	500 pieces	5000 pieces
074.03.003	074.04.003	green	500 pieces	5000 pieces
074.03.004	074.04.004	pink	500 pieces	5000 pieces
074.03.005	074.04.005	blue	500 pieces	5000 pieces



MICRO - HAEMATOCRIT TUBES

- Manufactured by fully automatic machines according to ISO 12772 and BS 4316-68 standards with 75 mm length and 0,2 mm wall thickness.
- **Alternative 2 tube types:**
  - **Non-heparinised tubes with blue color tip.**
  - **Heparinised tubes with red color tip.**
- Interior surface of heparinised tubes are covered with sodium heparinite.

catalogue number	tube type	vial quantity	box quantity
088.02.001	heparinised	100 pcs	10 vials
088.02.002	non-heparinised	100 pcs	10 vials



MICRO - HAEMATOCRIT TUBE WAX

- Offers fast and safe solutions for sealing of the micro haematocrit tube ends.
- Can carry 48 tubes with 2 x 24 array.
- Numerical index on the tray provides easy identification of tube positions
- This non drying sealing compound has a life time of 3 years at room conditions.

catalogue number	tube capacity	pack quantity
088.03.001	48 tubes	10 pieces



Lancets are very incisive and have very sharp edges which penetrates into the skin very easily.

BLOOD LANCETS *"manual"*

- Manufactured from medical grade stainless steel.
- Featured with very sharp blade end that penetrates into the skin easily without pain.
- Single use and gamma sterilized and individually packed.

catalogue number	pack quantity	box quantity
088.01.001	200 pieces	50 pack

BLOOD LANCETS - *"automatic"*

- Offers perfect protection since the needle is allways been fully shielded "before" and "after" use.
- Featured with ultra sharp needle with high speed penetration of 1,8 mm depth.
- Single use and gamma sterilized and individually packed.

catalogue number	pack quantity	box quantity
088.02.003	100 pieces	5 packs





Twist off the protective safety cap first.



Hold the lancet firmly on the finger site



Press the release button to activate the lancet



Gently press the finger to let the blood drop out



SEDI-RATE SET

➤ Sedi-Rate tubes offer an easy performance of erythrocyte sedimentation rate test according to Westergreen method.

➤ Totally closed cycle sterile production of the tubes guarantees maximum hygiene safety.

➤ The set consists of below parts;
- A unique designed tube with 0,25 ml sodium citrate which is for testing 1 ml blood.
- A graduated pipette featured with a rubber cap. The cap allows the rise of the liquid by pressing the pipette into the tube.
- A fibre cap at the top of the pipette which allows the blood mixture to reach “0” level.

➤ Procedure is very simple: First fill the tube with blood and guarantee homogeneous mixing by shaking the tube.

➤ Then insert the pipette and follow the remaining steps.

catalogue number	pack quantity
085.01.001	box of 600 tube + 600 pipettes





K3 EDTA - *“tubes”*

➤ K3EDTA tubes are manufactured from polypropylene and featured with a cap which ensures comfortable and reliable closure.

➤ The already pulverised anticoagulant inside the tube guarantees perfect mixture of the blood without the need of any further additions.

➤ Since the anticoagulant is pulverised all over the tube interior wall there is no risk of any loss.

➤ Tubes are designed to be used with 2,5 ml blood volume.

catalogue number	pack quantity
085.03.001	1500 pieces



CYTOLOGY BRUSH

➤ This brush is used for cervical specimen collection.

➤ Unique design allows sampling without the risk of any loss of cells.

➤ Soft silicone tip at the further end provides comfort to the patients.

➤ Supplied as single packed units in box of 100 pieces.

catalogue number	total length	pack quantity
086.05.001	200 mm	1 box

SEDI-RATE RACK

➤ Manufactured from acrylate to hold 10 sedi-rate tubes vertically.

➤ Alphanumerical index on tube rows enables easy identification of tube positions.

catalogue number	pack quantity
085.02.001	1 piece



Comitted to



Wertheim - Germany

www.isolab.de

ISOLAB® chemicals



Comitted to Quality

http://isolab.de/en-us/laboratory-chemicals

ISOLAB chemicals is a registered trademark of ISOLAB Laborgeräte GmbH

highlights

grade selection guide

We offer our customers a broad range of chemicals including almost all grades for lab from general to specific usage. To assist our clients selecting best materials for their applications, we herewith submit a selection guide for your perusal.

We kindly invited you to contact with us if you need further information about grade explanations.

For synthesis

Those reagents those are suitable for organic synthesis and preparative applications.
The Synthesis grade reagents are used as building blocks, specific reagents for acetylation, alkylation, reduction and oxidation etc for chemical synthesis. That grade generally submits max.

Pure / Extra Pure

Products of purity suitable for use in general applications.
The reagents are suitable in qualitative, semi quantitative analysis, organic synthesis and general use in laboratory.

Ph.Eur, BP, USP

Products and solutions meeting the purity requirements of chemical products admitted in the pharmaceutical sector.
Meets analytical specifications of USP, FCC, NF, EP (Ph. Eur.), BP, and/or JP) or equivalent.

ACS

A chemical grade of highest purity and meets American Chemical Society (ACS) standards.

GR For analysis ACS

Suitable for use in analytical chemistry, products meet or exceed American Chemical Society (ACS) Requirements where applicable. For general analysis and procedures requiring stringent quality specifications.

For analysis ACS, ISO, Reag. Ph.Eur

The highest purity standards are ideally suitable for quantitive chemical analysis in food, pharmaceutical, metallurgy and environment analysis.

Meet or exceed the requirements of the American Chemical Society (ACS), reagent part of the European Pharmacopoeia (Reag. Ph Eur) and also complies to the requirements of ISO (International Organization for Standardization), which is relevant for all industrial sectors.

High Performance Liquid chromatography (HPLC)

Solvent tested for suitability of the product range is specially made for HPLC (High Performance Liquid Chromatography).

HPLC quality often guarantees unique specifications including ultra-low fluorescent impurity levels, outstanding high UV transmission, minimum peak impurities, and very low drift in HPLC gradient.

Liquid chromatograpyh - Mass spectrometry (LC MS)

Meets stringent purity requirements of LC/ MS (Liquid chromatography - Mass spectrometry).
Filtered through 0.2 µm. For routine quality work,
analysed for low metallic level and good HPLC, UHPLC and MS performance.

pH Buffer Solutions

Isolab offers buffer solutions to calibrate pH meters.
Our pH standard solutions are accurate, reliable and directly traceable to the SRM of NIST.

Ion Pair Reagents

Highly pure additive for ion air chromatography are suitable for detection in the low UV range.
Reagents of this special quality inspected by means of a filter test, a cyclovoltagram and gradient test at 205nm.

LV-GC for organic trace analysis

Suitable for extraction-concentration analysis, analysed for GC-FID, -ECD and -NPD suitability as well as for PDA performance for the analysis of PAH, GC-Capillary analysis, minute residue analysis, heavy hydrocarbon and mineral oil index analysis. The solvent display high transmittance and low level of fluorescent impurities

highlights

labels

Consistent format for all ISOLAB chemicals makes it easier to read the label and find all informations you might need.



1. Catalogue number
2. Packing volume
3. CAS number
4. EC index number
5. LOT number
6. Manufacture and expiry dates
7. Signal words and Hazard Statements
8. Reccomended storage temperature range
9. Product barcode
10. QR barcode
11. Product name (English)
12. Product names (German & French & Spanish)
13. Product grade
14. GHS Hazard pictograms
15. Product purity
16. Product Chemical formula
17. Chemical attributes
18. Product specifications
19. UN Number
20. Website
21. Product use
22. Warning for “how to dispose the bottle”

highlights

QR barcode



Read the QR barcode and instantly download all the necessary documentation MSDS, COA, TDS to your smart phone.

how to read QR code

1- Activate QR code application on your smartphone.

2- Focus the smartphone camera to scan QR code printed on product label.

3- Click on the link to see product page.

4- You will reach the product page in ISOLAB website.

5- Click MSDS to see safety data sheet.

6- Click TDS to see technical data sheet.

7- Click COA for certificate of analysis and follow the instructions.

8- You can download certificates to your smartphone and store them.



How to download

MSDS, TDS, COA certificates

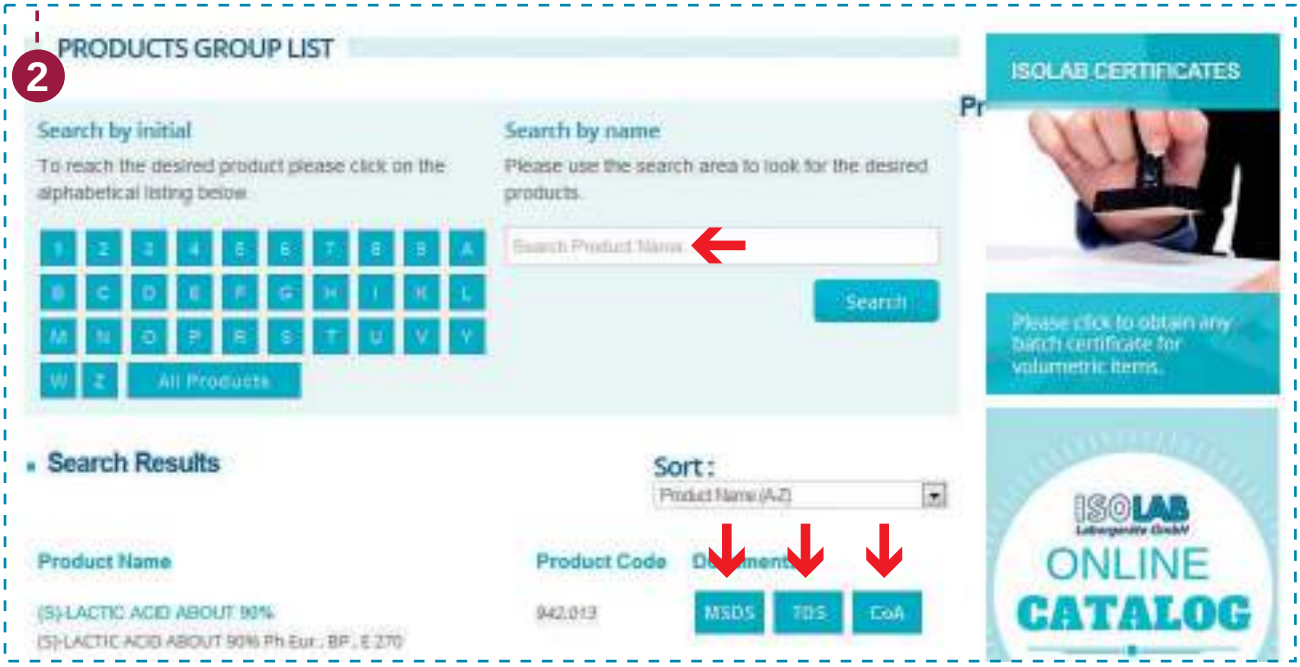
Click on the link **LABORATORY CHEMICALS** under **PRODUCT PORTFOLIO** headline.

1



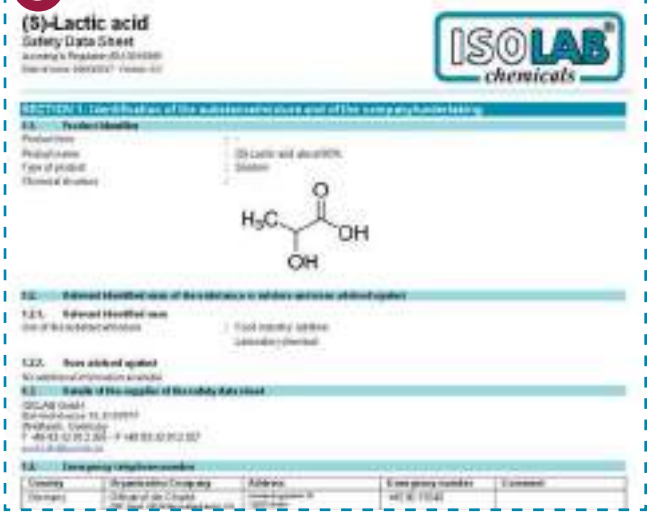
You can search the product and get the results.

2



You can reach safety data sheet when you click on MSDS.

3



You can reach Technical Data Sheet when you click on TDS.

4



How to download

MSDS, TDS, COA certificates

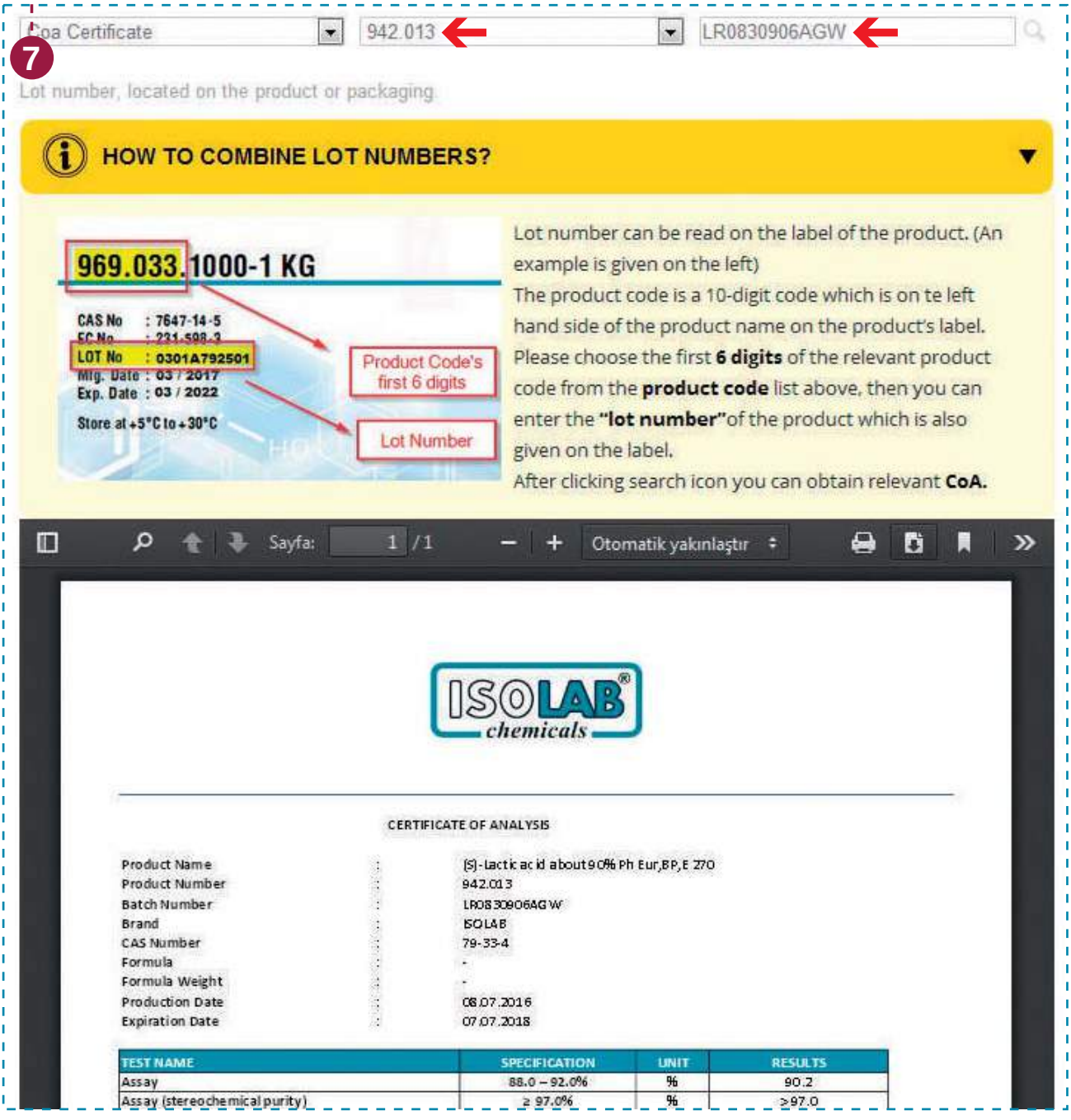
When you click on CoA link, Obtain Certificates page is opened. You can also reach this link from homepage.

Click on Obtain Certificates link under Downloads / Support headline.





Choose Product Number and Enter Lot Number, coa will occur on your page.



highlights

safety data sheet





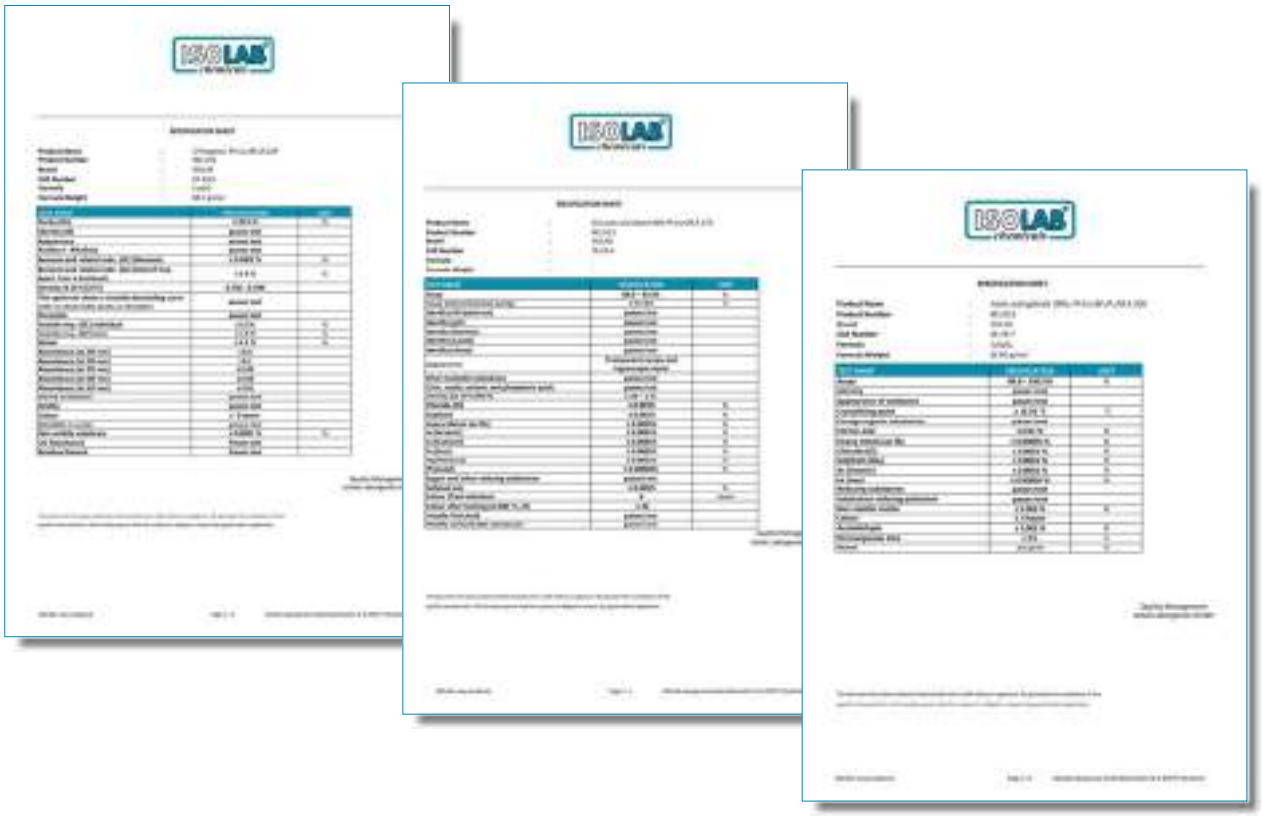






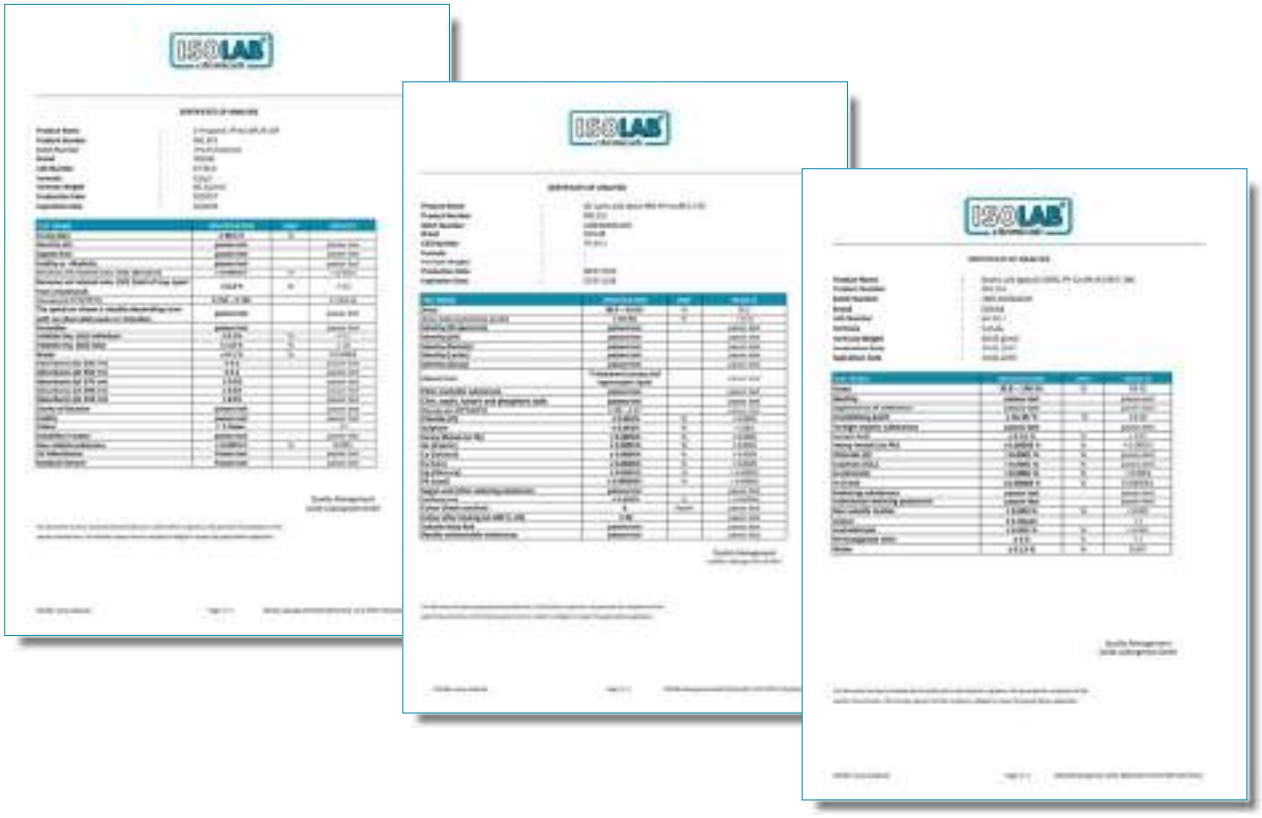
highlights

technical data sheet



highlights

certificate of analysis



highlights

safety statements

 **Exploding bomb**	**Usage** Unstable explosives Explosives, divisions 1.1, 1.2, 1.3, 1.4 Self-reactive substances and mixtures, types A, B Organic peroxides, types A, B
 **Flame**	**Usage** Flammable gases, category 1 Flammable aerosols, categories 1, 2 Flammable liquids, categories 1, 2, 3 Flammable solids, categories 1, 2 Self-reactive substances and mixtures, types B, C, D, E, F Pyrophoric liquids, category 1 Pyrophoric solids, category 1 Self-heating substances and mixtures, categories 1, 2 Substances and mixtures, which in contact with water, emit flammable gases, categories 1, 2, 3 Organic peroxides, types B, C, D, E, F
 **Flame over circle**	**Usage** Oxidizing gases, category 1 Oxidizing liquids, categories 1,2,3 Oxidizing solids, categories 1,2,3
 **Gas cylinder**	**Usage** Compressed gases Liquefied gases Refrigerated liquefied gases Dissolved gases
 **Corrosion**	**Usage** Corrosive to metals, category 1
No pictogram required	**Usage** Explosives, divisions 1.5, 1.6 Flammable gases, category 2 Self-reactive substances and mixtures, type G Organic peroxides, type G
 **Skull and crossbones**	**Usage** Acute toxicity (oral, dermal, Inhalation), categories 1, 2, 3
 **Corrosion**	**Usage** Skin corrosion, categories 1A, 1B, 1C Serious eye damage, category 1
 **Exclamation mark**	**Usage** Acute toxicity (oral, dermal, Inhalation), category 4 Skin irritation, categories 2, 3 Eye irritation, category 2A Skin sensitization, category 1 Specific target organ toxicity following single exposure, category 3 Respiratory tract Irritation Narcotic effects Not used with the "skull and crossbones" pictogram for skin or eye irritation if: the "corrosion" pictogram also appears the "health hazard" pictogram is used to indicate respiratory sensitization
 **Health hazard**	**Usage** Respiratory sensitization, category 1 Germ cell mutagenicity, categories 1A, 1B, 2 Carcinogenicity, categories 1A, 1B, 2 Reproductive toxicity, categories 1A, 1B, 2 Specific target organ toxicity following single exposure, categories 1, 2 Specific target organ toxicity following repeated exposure, categories 1, 2 Aspiration hazard, categories 1, 2
No pictogram required	**Usage** Acute toxicity (oral, dermal, Inhalation), category 5 Eye irritation, category 2B Reproductive toxicity - effects on or via lactation
 **Environment**	**Usage** Acute hazards to the aquatic environment, category 1 Chronic hazards to the aquatic environment, categories 1, 2
No pictogram required	**Usage** Acute hazards to the aquatic environment, categories 2, 3 4 Chronic hazards to the aquatic environment, categories 3, 4

highlights

hazard (H) statements

H-200 PHYSICAL HAZARDS

H200 Unstable Explosive
H201 Explosive; mass explosion hazard.
H202 Explosive; severe projection hazard.
H203 Explosive; fire, blast or projection hazard.
H204 Fire or projection hazard.
H205 May mass explode in fire.
H220 Extremely flammable gas.
H221 Flammable gas.
H222 Extremely flammable aerosol.
H223 Flammable aerosol.
H224 Extremely flammable liquid and vapour.
H225 Highly Flammable liquid and vapour.
H226 Flammable liquid and vapour.
H228 Flammable solid.
H240 Heating may cause an explosion.
H241 Heating may cause a fire or explosion.
H242 Heating may cause a fire.
H250 Catches fire spontaneously if exposed to air.
H251 Self-heating; may catch fire.
H252 Self-heating in large quantities; may catch fire.
H260 In contact with water releases flammable gases which may ignite spontaneously.
H261 In contact with water releases flammable gas .
H270 May cause or intensify fire; oxidizer.
H271 May cause fire or explosion; strong oxidiser.
H272 May intensify fire; oxidizer.
H280 Contains gas under pressure; may explode if heated.
H281 Contains refrigerated gas; may cause cryogenic burns or injury.
H290 May be corrosive to metals.

H-300 HEALTH HAZARDS

H300 Fatal if swallowed.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H305 May be fatal if swallowed and enters airways.
H310 Fatal in contact with skin.
H311 Toxic in contact with skin
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H340 May cause genetic defects.
H341 Suspected of causing genetic defects.
H350 May cause cancer.
H350i May cause cancer by inhalation.
H351 Suspected of causing cancer.
H360 May damage fertility or the unborn child.
H360F May damage fertility.
H360D May damage the unborn child.
H360FD May damage fertility. May damage the unborn child.
H360Fd May damage fertility. Suspected of damaging unborn child.
H360Df May damage the unborn child. Suspected of damaging fertility.
H361 Suspected of damaging fertility or the unborn child.
H361f Suspected of damaging fertility.
H361d Suspected of damaging the unborn child.
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
H362 May cause harm to breast-fed children.
H370 Causes damage to organs.
H371 May cause damage to organs.
H372 Causes damage to organs through prolonged or repeated exposure.
H373 Causes damage to organs through prolonged or repeated exposure.

H-400 ENVIRONMENTAL HAZARDS

H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.
H420 Harms public health and the environment by destroying ozone in the upper atmosphere.

COMBINATION OF H-CODES

H300 + H310 Fatal if swallowed or in contact with skin.
H300 + H330 Fatal if swallowed or if inhaled.
H310 + H330 Fatal in contact with skin or if inhaled
H300 + H310 + H330 Fatal if swallowed, in contact with skin or if inhaled.
H301 + H311 Toxic if swallowed or in contact with skin.
H301 + H311 Toxic if swallowed or if inhaled.
H311 + H331 Toxic in contact with skin or if inhaled.
H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled.
H302 + H312 Harmful if swallowed or in contact with skin.
H312 + H332 Harmful in contact with skin or if inhaled.
H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.

ADDITIONAL HAZARD STATEMENTS

EUH001 Explosive when dry.
EUH006 Explosive with or without contact with air.
EUH014 Reacts violently with water.
EUH018 In use may form flammable/explosive vapour-air mixture.
EUH019 May form explosive peroxides.
EUH029 Contact with water liberates toxic gas.
EUH031 Contact with acids liberates toxic gas.
EUH032 Contact with acids liberates very toxic gas.
EUH044 Risk of explosion if heated under confinement.
EUH059 Hazardous to the ozone layer.
EUH066 Repeated exposure may cause skin dryness or cracking
EUH070 Toxic by eye contact.
EUH071 Corrosive to the respiratory tract. Contains lead. Should not be used on surfaces liable to the chewed or sucked by children. Warning! Contains lead.
EUH202 Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.
EUH203 Contains chromium (VI). May produce an allergic reaction.
EHU204 Contains isocyanates. May produce an allergic reaction.
EUH205 Contains epoxy constituents. May produce an allergic reaction.
EUH206 Warning! Do not use together with other products. May release gangerous gases (chlorine).
EUH207 Warning! Contains cadmium. Dangerous fumes are formed during use. See information supplied by the manufacturer.
EUH208 Contains (name of sensitising substance). May produce an allergic reaction. Can become highly flammable in use. Can become flammable in use.
EUH210 Safety data sheet available on request.
EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

highlights

precautionary (P) statements

P-100 GENERAL

P101 If medical advice is needed,have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.

P-200 PREVENTION

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P211 Do not spray on an open flame or other ignition source.
P220 Keep/Store away from clothing/…/combustible materials.
P221 Take any precaution to avoid mixing with combustibles/…
P222 Do not allow contact with air.
P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.
P230 Keep wetted with …
P231 Handle under inert gas.
P232 Protect from moisture.
P233 Keep container tightly closed.
P234 Keep only in original container.
P235 Keep cool.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/…/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P244 Keep reduction valves free from grease and oil.
P250 Do not subject to grinding/shock/…/friction.
P251 Pressurized container: Do not pierce or burn, even after use.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P262 Do not get in eyes, on skin, or on clothing.
P263 Avoid contact during pregnancy/while nursing.
P264 Wash hands thoroughly after handling.
P264 Wash skin thouroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P281 Use personal protective equipment as required.
P282 Wear cold insulating gloves/face shield/eye protection.
P283 Wear fire/flame resistant/retardant clothing.
P284 Wear respiratory protection.
P285 In case of inadequate ventilation wear respiratory protection.
P231 + P232 Handle under inert gas. Protect from moisture.
P235 + P410 Keep cool. Protect from sunlight.

P-300 RESPONSE

P301 IF SWALLOWED
P302 IF ON SKIN
P303 IF ON SKIN (or hair)
P304 IF INHALED
P305 IF IN EYES
P306 IF ON CLOTHING
P307 IF exposed
P308 IF exposed or concerned
P309 IF exposed or if you feel unwell
P310 Immediately call a POISON CENTER or doctor/physician.
P311 Call a POISON CENTER or doctor/physician.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P313 Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.
P315 Get immediate medical advice/attention.
P320 Specific treatment is urgent (see … on this label).
P321 Specific treatment (see … on this label).
P322 Specific measures (see …on this label).
P330 Rinse mouth.
P331 Do NOT induce vomiting.
P332 IF SKIN irritation occurs:
P333 If skin irritation or rash occurs:
P334 Immerse in cool water/wrap in wet bandages.
P335 Brush off loose particles from skin.
P336 Thaw frosted parts with lukewarm water. Do not rub affected area.
P337 If eye irritation persists:
P338 Remove contact lenses, if present and easy to do. Continue rinsing.
P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P341 If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342 If experiencing respiratory symptoms:
P350 Gently wash with plenty of soap and water.
P351 Rinse cautiously with water for several minutes.
P352 Wash with plenty of soap and water.
P353 Rinse skin with water/shower.
P360 Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P361 Remove/Take off immediately all contaminated clothing.
P362 Take off contaminated clothing and wash before reuse.
P363 Wash contaminated clothing before reuse.
P370 In case of fire:
P371 In case of major fire and large quantities:
P372 Explosion risk in case of fire.
P373 DO NOT fight fire when fire reaches explosives.
P374 Fight fire with normal precautions from a reasonable distance.
P376 Stop leak if safe to do so. Oxidising gases (section 2.4) 1
P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P378 Use … for extinction.
P380 Evacuate area.
P381 Eliminate all ignition sources if safe to do so.
P390 Absorb spillage to prevent material damage.
P391 Collect spillage. Hazardous to the aquatic environment
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302 + P334 IF ON SKIN: Immerse in cool water/wrap in wet bandages.
P302 + P350 IF ON SKIN: Gently wash with plenty of soap and water.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse SKIN with water/shower.

highlights

precautionary (P) statements

P304 + P312 IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.
P304 + P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.
P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P306 + P360 IF ON CLOTHING: Rinse immediately contaminated CLOTHING and SKIN with plenty of water before removing clothes.
P307 + P311 IF exposed: call a POISON CENTER or doctor / physician.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P309 + P311 IF exposed or if you feel unwell: call a POISON CENTER or doctor/ physician.
P332 + P313 IF SKIN irritation occurs: Get medical advice/attention.
P333 + P313 IF SKIN irritation or rash occurs: Get medical advice/attention.
P335 + P334 Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.
P337 + P313 IF eye irritation persists: Get medical advice/attention.
P342 + P311 IF experiencing respiratory symptoms: call a POISON CENTER or doctor/physician.
P370 + P376 In case of fire: Stop leak if safe to Do so.
P370 + P378 In case of fire: Use … for extinction.
P370 + P380 In case of fire: Evacuate area.
P370 + P380 + P375 In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
P371 + P380 + P375 In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

P-400 STORAGE

P401 Store …
P402 Store in a dry place.
P403 Store in a well-ventilated place.
P404 Store in a closed container.
P405 Store locked up.
P406 Store in corrosive resistant/… container with a resistant inner liner.
P407 Maintain air gap between stacks/pallets.
P410 Protect from sunlight.
P411 Store at temperatures not
P412 Do not expose to temperatures exceeding 50 °C/ 122 °F.
P413 Store bulk masses greater than … kg/…lbs at temperatures not exceeding … °C/…°F.
P420 Store away from other materials.
P422 Store contents under …
P402 + P404 Store in a dry place. Store in a closed container.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P410 + P403 Protect from sunlight. Store in a well-ventilated place.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P411 + P235 Store at temperatures not exceeding … °C/…°F. Keep cool.

P-500 DISPOSAL

P501 Dispose of contents/container to.…
P502 Refer to manufacturer/supplier for information on recovery/recycling

GHS Pictograms



GHS01
Exploding Bomb



GHS02
Flame



GHS03
Flame over Circle



GHS04
Gas Cylinder



GHS05
Corrosion



GHS06
Skull and Crossbones



GHS07
Exclamation Mark



GHS08
Health Hazard



GHS09
Environment

highlights

packing safety

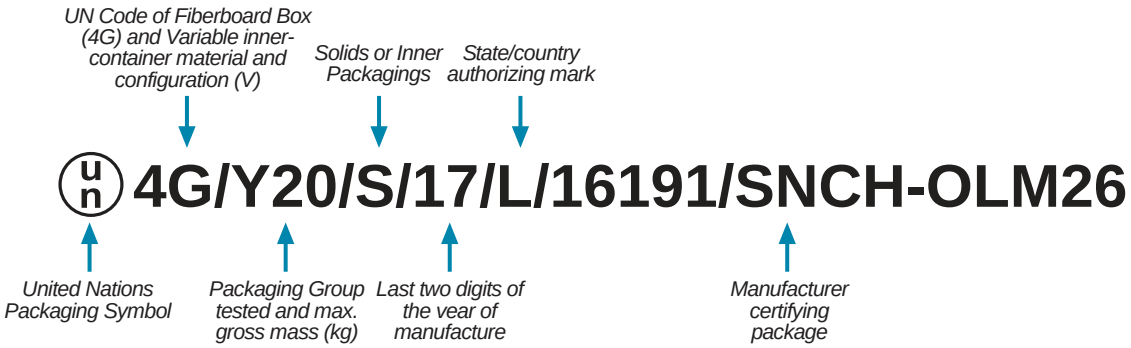
The main purpose of all types of packings used for chemicals are to protect the users and the enviroment from possible hazards. Only properly packed chemicals can be safely transported and stored by the users.

According to IATA regulations the dangerous chemicals can only be transported if they are packed in **UN (United Nations)** approved packings. During transportation and storing of dangerous chemicals the ultimate goal is to pack them in a manner to prevent the escape of the chemical from the packing.

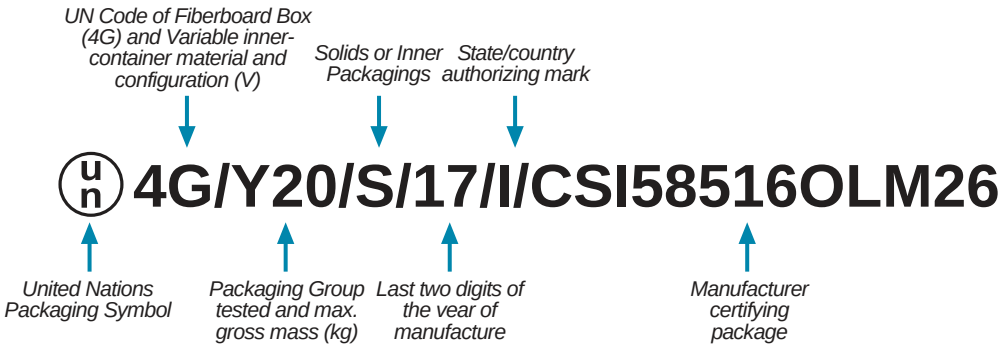
This task can only be achieved by utilizing **UN (United Nations)** approved packings. As a general rule all kinds of **UN (United Nations)** approved packings must be certified by a national competent authority. This involves testing the packings against the approtiate **UN (United Nations)** specifications to ensure the suitability for the carriage of dangerous chemicals.

All **UN (United Nations)** approved packings must carry 2 different **(for railroad & highway and for seaway & airway)** marking guides as shown below.

Guide for highway & railroad



Guide for seaway & airway



ISOLAB *branded dangerous chemicals are allways packed in UN approved packings*

All ISOLAB external and internal packings are extensively tested and approved for safe transport and storage of chemicals to conform with all safety requirements.

All necessary hazard symbols should also be printed on the sides of the packing.

Also the label of the packed product is attached on the front side of the packing.



highlights

external packings

ISOLAB external packings are manufactured from thick seperated cardboard with printed pack quantity and related UN numbers on the pack surface.

With these external packings ISOLAB guarantees minimum risks during transportation and storing.

All external packings are featured with folding bottom and top covers.

Folded covers form a nest for the inner packings and secure them against deformation and breakage during transportation and storage.

External packings protects the bottles against potential risks during transportation and also eliminates static electricity.



cross sections of external packings

Since the unique design of the external packings isolates the inner packings from each other the inner packings are fully protected against potential risks during transportation.





highlights

internal packings

HDPE bottle for solids



All these bottles can be selected from our laboratory consumables & labware & instruments catalogue.

- Manufactured from best quality high density polyethylene with thick walls and crush-resistant corners to minimise deformation by vacuum.
- They offer remarkable resistance and durability with highest safety. Wide base avoids the risk of tip over of the bottle and maximises safety.
- These bottles guarantee optimum solutions for safe handling, storage and transport of solid chemicals.
- The large bottle neck provides easy filling and pouring. Unique design of the neck with moulded pouring ring prevents spillage.
- Cap inner design with inverted top plate ensures hermetical and leak-proof closure.
- Featured with self lock and internal security ring for safe protection of the bottle content.

item no	volume	neck size	neck O.D	bottle W x L x H
1	100 ml	GL 45	45 mm	60 x 60 x 99 mm
2	250 ml	GL 63	63 mm	85 x 85 x 144 mm
3	500 ml	GL 63	63 mm	90 x 90 x 173 mm
4	1000 ml	GL 63	63 mm	96 x 96 x 205 mm
5	1500 ml	GL 63	63 mm	114 x 114 x 241 mm
6	2500 ml	GL 80	80 mm	125 x 125 x 272 mm



Unique design of the cap with inverted top plate guarantees tight and leakproof closure.



Integral security ring of the cap ensures safe and untouched protection of the bottle content.

highlights

internal packings

glass bottle for solids



➤ Manufactured from amber colored borosilicate 3.3 glass. Amber bottles prevents UV light penetration into the bottle and protects sensitive samples.

➤ Specially recommended for safe storage and transportation of powders and pastes. Thick wall, heavy base and reinforced rim prevent breakage during transportation.

➤ Large bottle necks provides easy filling and pouring. Cap inner design with inverted top plate ensures hermetical and leak-proof closure.

➤ Featured with self lock and internal security ring for safe protection of the bottle content.

item no	volume	neck size	neck O.D	bottle Ø x H
1	50 ml	GL 40	40 mm	50 x 81 mm
2	125 ml	GL 40	40 mm	55 x 108 mm
3	250 ml	GL 60	60 mm	70 x 131 mm
4	500 ml	GL 60	60 mm	83 x 172 mm
5	1000 ml	GL 60	60 mm	100 x 214 mm
6	2500 ml	GL 80	80 mm	137 x 291 mm

HDPE buckets for solids

➤ Manufactured from best quality high density polyethylene with remarkable resistance and durability with highest safety.

➤ These containers are colored against the effects of UV radiation and guarantee optimum solutions for safe handling, storage and transport of solid chemicals.

➤ The wide base diameter guarantees safe standing. Ergonomic handle offers easy product pouring. Featured with self locking cap ensuring perfect fit with the container.



item no	volume	neck O.D	bottle Ø x H
1	5 lt	224 mm	224 x 170 mm
2	9 lt	271 mm	271 x 218 mm
3	18 lt	320 mm	320 x 282 mm

highlights

internal packings

HPDE bottles for liquids



➤ Manufactured from best quality high density polyethylene with thick walls and crush-resistant corners to minimise deformation by vacuum.

➤ They offer remarkable resistance and durability with highest safety.

➤ Wide base avoids the risk of tip over of the bottle and maximises safety.

➤ Bottles 2,5 lt and higher volume are featured with a full hand handle for easier and safe product pouring.

➤ The large bottle neck provides easy filling and pouring. Unique design of the neck with moulded pouring ring prevents drops and spillage.

➤ These bottles guarantee optimum solutions for safe handling, storage and transport of liquids.

➤ Cap inner design with inverted top plate ensures hermetical and leak-proof closure. GL 45 caps for liquid bottles are featured with a PTFE protective insert.

➤ Featured with self lock and internal security ring for safe protection of the bottle content.

item no	volume	neck size	neck O.D	bottle W x L x H
1	500 ml	GL 45	45 mm	90 x 90 x163 mm
2	1000 ml	GL 45	45 mm	96 x 96 x 205 mm
3	2500 ml	GL 45	45 mm	127 x 127 x 303 mm
4	5000 ml	GL 45	45 mm	148 x 148 x 383 mm



Unique design of the cap with inverted top plate guarantees tight and leakproof closure.



Integral security ring of the cap ensures safe and untouched protection of the bottle content.



GL 45 caps for liquid bottles are featured with a PTFE protective insert for additional safety.

highlights

internal packings

glass bottles for liquids

- Manufactured from borosilicate 3.3 glass with thick walls and amber color.
- Amber bottles prevents UV light penetration into the bottle and protects sensitive samples.
- Specially recommended for safe storage and transportation of liquids.
- Thick wall, heavy base and reinforced rim prevent breakage during washing and transportation.
- Bottle necks provides easy filling and pouring of samples. Caps are made from polyetylene with large ridges for fast closure.
- Cap inner design with inverted top plate ensures hermetical and leak-proof closure. GL 45 caps for liquid bottles are featured with a PTFE protective insert.
- Featured with self lock and internal security ring for safe protection of the bottle content.



item no	volume	neck size	neck O.D	bottle Ø x H
1	1000 ml	GL 45	45 mm	100 x 227 mm
2	2500 ml	GL 45	45 mm	138 x 286 mm
3	2500 ml	GL 32	32 mm	132 x 305 mm

aluminium containers for liquids



- These odour-natural, impervious to light and rust proof bottles are manufactured from aluminium.
- They offer remarkable resistance and durability with highest safety.
- They guarantee optimum solutions for safe handling, storage and transport of solid and liquid chemicals.
- GL 45 bottle neck provides easy filling and pouring. Unique design of the neck prevents drops and spillage.
- These bottles are supplied with an insert plug for hermetical and leak-proof closure.
- Caps with large ridges with increased grip featured with self lock and internal security ring.
- Cap inner design ensures hermetical and leak-proof closure

item no	volume	neck size	neck O.D	bottle Ø x H
1	1 L	GL 45	45 mm	89 x 249 mm
2	5 L	GL 60	60 mm	173 x 338 mm

lab chemicals & reagents

Acetic acid 100 % 380
Acetic acid 0.1% in water 380
Acetone 381
Acetonitrile 382
Acetonitrile with 0.1% Acetic acid 382
Acetonitrile with 0.1% Trifluoroacetic acid 383
Alcian blue 8GX 383
Aniline blue (Spirit soluble) 383
Aniline blue (Water soluble) 384
Ammonium acetate 384
Ammonium chloride 385
Ammonium iron (II) sulfate hexahydrate 385
Ammonia solution 25 % 386
Ammonium sulfate 386
Auramine 386
Benzene 387
Bismarck brown ® 387
Bismarck brown Y (G) 387
Brilliant green indicator 388
Brilliant cresyl blue 388
Buffer solution pH 1.00 388
Buffer solution pH 2.00 388
Buffer solution pH 3.00 389
Buffer solution pH 4.00 389
Buffer solution pH 5.00 389
Buffer solution pH 6.00 389
Buffer solution pH 7.00 389
Buffer solution pH 8.00 390
Buffer solution pH 9.00 390
Buffer solution pH 10.00 390
Buffer solution pH 11.00 390
1-Butanol 390
Butane-1-sulfonic acid sodium salt 391
tert-Butanol 391
tert-Butyl methyl ether 391
Calcium chloride dihydrate 392
Calcium nitrate tetrahydrate 392
Carbol fuchsin powder 393
Carmine 393
Chlorobenzene 393
Chloroform 394
Citric acid monohydrate 395
Cobalt (II) chloride hexahydrate 395
Congo red indicator 395
Coomassie brilliant blue G 250 396
Coomassie brilliant blue R 250 396
Copper (II) sulfate pentahydrate 396
Cresyl violet (Acetate) 397
Cyclohexane 397
Dichloromethane 398
N,N-Dimethylformamide 398
Diethyl ether 399
Dimethyl sulfoxide 399
Dodecane-1-sulfonic acid sodium salt 400
Dodecyl sulfate sodium salt 400
Eosin alcohol soluble 401
Eosin Blue 401
Eosin Yellow 401
Eriochrome black T 402
Ethanol 402
Ethyl acetate 403
Ethylene glycol 403
Evans blue 403
Fast green FCF 404
Fluorescein 404
Fluorescein sodium 404
Formaldehyde solution about 37 % 405
Formic acid 405
Fuchsin acid 406
Fuchsin basic 406
Formic acid 0.1 % in water 406
Formic acid 0.1 % in Acetonitrile 407
Giemsa's stain 408
Glycerol 85 % 408
Glycine 409
D (+)- Glucose monohydrate 409
n-Heptane 410
Hexadecane-1-sulfonic acid sodium salt 410
Hexadecyltrimethylammonium bromide 410
n-Hexane 411
Hexane-1-sulfonic acid sodium salt 411
Hydrochloric acid fuming 37% 412
Hydrofluoric acid 412
Iodine sublimated 413
Iron (II) sulfate heptahydrate 413
Iron (III) chloride hexahydrate 413
Isooctane 414
(S)-Lactic acid about 90 % 415
Light green SF yellowish 415
Magnesium sulfate heptahydrate 416
Malachite green 416
May and Grunwald's stain 416
Mercury (II) chloride 417
Mercury (II) sulfate 417
Methanol 418
Methanol with 0.1 % Trifluoroacetic acid 419
Methyl blue 419
Methyl green 419
Methyl violet 420
Methylene blue 420
Methylthymol blue sodium salt 420
Nessler's reagent 421
New fuchsin 421
Nigrosine alcohol soluble 421
Nigrosine water soluble 422
Nitric acid 422
1-Octanesulfonic Acid Sodium Salt 423
Octyl sulfate sodium salt 423
Oil red O 423
Orange G indicator 424
Orcein 424
Oxalic acid dihydrate 424
Patent blue V (VF) 425
n-Pentane 425
Pentane-1-sulfonic acid sodium salt 425
Perchloric acid 70-72% 426
Petroleum Ether boiling range 40-60 °C 426
Phenol 427
Phloxin B 427
Ortho-Phosphoric acid 85 % 428
Picric acid 428
Ponceau S 429
Potassium carbonate 429
Potassium chloride 429
Potassium chromate 430
Potassium dichromate 430
Potassium dihydrogen phosphate 430
di-Potassium hydrogen phosphate anhydrous 431
Potassium hexacyanoferrate (II) trihydrate 431
Potassium hydroxide 432
Potassium iodate 432
Potassium iodide 433
Potassium nitrate 433
Potassium sulfate 433
1-propanol 434
2-propanol 435
Pyronin B 435
Rhodamine B 436
Safranine 437
Salicylic acid 437
Silica Gel 438
Silver nitrate 438
Silver sulfate 439
Sodium acetate anhydrous 439
Sodium acetate trihydrate 440
Sodium carbonate anhydrous 440
Sodium chloride 441
tri-Sodium citrate dihydrate 441
Sodium dihydrogen phosphate dihydrate 442
Sodium disulfite 442
Sodium hydrogen carbonate 443
di-Sodium hydrogen phosphate dihydrate 443
di-Sodium hydrogen phosphate dodecahydrate 444
Sodium hydroxide 444
Sodium nitrite 445
Sodium sulfate anhydrous 445
Sodium sulfite anhydrous 445
Sodium thiosulfate anhydrous 446
Starch 446
Sudan black B 447
Sudan III 447
Sudan IV 447
Sulfuric acid 95-98 % 448
Tartrazine 449
Tetrahydrofuran 449
Tetra-n-butylammonium hydrogen sulfate 449
Toluene 450
Toluidine blue O 450
Trichloroacetic acid 450
Triethylamine 451
Trypan blue 451
Trifluoroacetic acid 0.1% in Water 451
Urea 452
Victoria blue 453
Water 454
Wright's stain 454
Xylenes 455
Zinc acetate dihydrate 456
Zinc chloride 456
Zinc sulfate heptahydrate 457

catalogue no // page			catalogue no // page			catalogue no // page			catalogue no // page			catalogue no // page		
901.013	→	380	911.D03	→	396	936.036	→	414	960.096	→	432	974.031	→	451
901.016	→	380	911.022	→	396	936.037	→	414	960.106	→	433	974.D01	→	451
901.017	→	380	911.026	→	396	942.013	→	415	960.116	→	433	974.068	→	451
901.068	→	380	912.D01	→	397	943.D01	→	415	960.136	→	433	978.015	→	452
901.023	→	381	912.012	→	397	946.016	→	416	961.012	→	434	980.D01	→	453
901.026	→	381	912.017	→	397	946.D01	→	416	961.016	→	434	983.018	→	454
901.027	→	381	914.013	→	398	946.D02	→	416	961.017	→	434	986.D01	→	454
901.037	→	382	914.014	→	398	947.026	→	417	961.023	→	435	990.019	→	455
901.038	→	382	914.017	→	398	947.036	→	417	961.024	→	435	996.016	→	456
901.078	→	382	914.042	→	398	947.043	→	418	961.028	→	435	996.023	→	456
901.088	→	383	914.044	→	398	947.046	→	418	961.D01	→	435	996.026	→	456
903.D01	→	383	914.023	→	399	947.047	→	418	964.D01	→	436	996.032	→	457
903.D02	→	383	914.034	→	399	947.048	→	418	967.D01	→	437	996.036	→	457
903.D03	→	384	914.036	→	399	947.068	→	419	967.012	→	437			
903.026	→	384	915.01P	→	400	947.D01	→	419	967.013	→	437			
903.033	→	385	915.02P	→	400	947.D02	→	419	968.019	→	438			
903.036	→	385	919.D01	→	401	947.D03	→	420	968.029	→	438			
903.046	→	385	919.D02	→	401	947.D04	→	420	968.046	→	438			
903.016	→	386	919.D03	→	401	947.D05	→	420	968.055	→	439			
903.056	→	386	920.D01	→	402	947.07P	→	420	969.176	→	439			
904.D01	→	386	920.026	→	402	951.02P	→	421	969.013	→	440			
906.026	→	387	920.027	→	402	951.D01	→	421	969.016	→	440			
906.D01	→	387	920.013	→	403	951.D02	→	421	969.023	→	440			
906.D02	→	387	920.017	→	403	951.D03	→	422	969.026	→	440			
908.D02	→	388	920.032	→	403	951.016	→	422	969.033	→	441			
908.D01	→	388	920.D05	→	403	954.01P	→	423	969.036	→	441			
908.B01	→	388	921.D01	→	404	954.02P	→	423	969.046	→	441			
908.B02	→	388	923.D02	→	404	955.D01	→	423	969.053	→	442			
908.B03	→	389	923.D01	→	404	957.D01	→	424	969.073	→	442			
908.B04	→	389	923.012	→	405	957.D02	→	424	969.076	→	442			
908.B05	→	389	923.015	→	405	957.016	→	424	969.103	→	443			
908.B06	→	389	923.022	→	405	958.D01	→	425	969.106	→	443			
908.B07	→	389	923.023	→	405	959.012	→	425	969.086	→	443			
908.B08	→	390	924.D01	→	406	959.017	→	425	969.183	→	443			
908.B09	→	390	924.D02	→	406	959.08P	→	425	969.096	→	444			
908.B10	→	390	923.048	→	406	959.026	→	426	969.112	→	444			
908.B11	→	390	923.038	→	407	959.033	→	426	969.113	→	444			
908.017	→	390	926.D01	→	408	959.037	→	426	969.123	→	445			
908.04P	→	391	927.023	→	408	959.045	→	427	969.146	→	445			
908.036	→	391	927.033	→	409	959.D01	→	427	969.156	→	445			
908.022	→	391	927.035	→	409	959.062	→	428	969.162	→	446			
908.027	→	391	927.013	→	409	959.066	→	428	970.012	→	446			
909.022	→	392	930.012	→	410	959.079	→	428	970.015	→	446			
909.026	→	392	930.017	→	410	960.D01	→	429	970.D01	→	447			
909.036	→	392	930.04P	→	410	960.026	→	429	970.D02	→	447			
909.D01	→	393	930.05P	→	410	960.036	→	429	970.D03	→	447			
909.D02	→	393	930.022	→	411	960.046	→	430	970.023	→	448			
910.021	→	393	930.024	→	411	960.056	→	430	970.026	→	448			
910.033	→	394	930.027	→	411	960.066	→	430	971.D01	→	449			
910.037	→	394	930.03P	→	411	960.123	→	431	972.017	→	449			
910.054	→	394	932.103	→	412	960.126	→	431	972.027	→	449			
910.057	→	394	932.106	→	412	960.076	→	431	972.03P	→	449			
910.046	→	395	932.116	→	412	960.142	→	431	973.014	→	450			
911.016	→	395	935.016	→	413	960.082	→	432	973.017	→	450			
911.D01	→	395	936.026	→	413	960.083	→	432	973.D01	→	450			
911.D02	→	396	936.016	→	413	960.086	→	432	974.016	→	450			

lab chemicals & reagents

Acetic acid 100 %



- $C_2H_4O_2$
- CAS-No: 64-19-7
- EC-No: 200-580-7
- EC index No: 607-002-00-6
- M= 60.05 g/mol
- Vapour Pressure: 15.4 hPa at 20°C
- Specific density: 1.05 g/cm³ at 20°C
- Flash point: 39°C
- Solubility in H_2O 602.9 g/l at 25°C
- pH value: 2.5 at 50 g/l 20°C
- Melting point: 17°C
- Bulk density: -
- Boiling point: 116 - 118°C at 1,013 hPa
- Ignition temperature: 485°C
- Explosive limit: -
- Viscosity kinematic: 1.17 mm²/s at 20°C
- Flammable, corrosive, skin corrosion
- H-STATEMENT/EUH: H226;290;314 / P210; 280;301+330+331;305+351+338;308+310
- Test Type: LD50 Oral rat
- Results: 3310 mg/kg
- HS-CODE: 2915 21 00 ➤ LGK: 3
- Disposal: 4 ➤ WGK: 1
- UN: 2789

901.013 *Acetic acid (glacial) 100 % Anhydrous -* *Ph Eur, BP, JP, USP, E 260*

Specification

Assay	99.8 – 100.5 %	Fe (Iron)	≤ 0.00005 %	Tl (Thallium)	≤ 0.000002 %
Identity	passes test	Reducing substances	passes test	V (Vanadium)	≤ 0.000001 %
Appearance of substance	passes test	Substances reducing		Zr (Zirconium)	≤ 0.000001 %
Crystallising point	≥ 16.35 °C	potassium permanganate	passes test	Substances reducing	
Foreign organic substances	passes test	Non volatile matter	≤ 0.003 %	potassium dichromate	passes test
Formic Acid	≤ 0.01 %	Colour	≤ 5 Hazen	Permanganate time	≥ 2 h
Heavy metals (as Pb)	≤ 0.00005 %	Acetaldehyde	≤ 0.005 %	Formic Acid, formate and other	
Chloride (Cl)	≤ 0.0001 %	Permanganate time	≥ 2 h	oxidable substances	≤ 0.02 %
Sulphate (SO_4)	≤ 0.0001 %	Water	≤ 0.15 %	Formaldehyde	≤ 0.0001 %
As (Arsenic)	≤ 0.0001 %				

catalogue number	packing specs	volume in pack	pack in box
901.013.1000	plastic bottle	1 l	6 pieces
901.013.2500	plastic bottle	2.5 l	4 pieces

901.016 *Acetic acid (glacial) 100 % Anhydrous -* *For analysis ACS,ISO,Reag. Ph Eur*

Specification

Assay	≥ 99.9 %	Co (Cobalt)	≤ 0.000001 %	Tl (Thallium)	≤ 0.000002 %
Identity	passes test	Cr (Chromium)	≤ 0.0000005 %	V (Vanadium)	≤ 0.000001 %
Colour	≤ 5 Hazen	Cu (Copper)	≤ 0.000001 %	Zr (Zirconium)	≤ 0.000001 %
Acetaldehyde	≤ 0.0001 %	Fe (Iron)	≤ 0.0000002 %	Substances reducing	
Acetic anhydride	≤ 0.01 %	Ga (Gallium)	≤ 0.0000002 %	potassium dichromate	passes test
Freezing Point	≥ 16.5 °C	In (Indium)	≤ 0.0000002 %	Permanganate time	≥ 2 h
Chloride (Cl)	≤ 0.0001 %	K (Potassium)	≤ 0.00001 %	Formic Acid, formate and other	
Phosphate (PO_4)	≤ 0.0001 %	Li (Lithium)	≤ 0.0000002 %	oxidable substances	≤ 0.02 %
Sulphate (SO_4)	≤ 0.00015 %	Mg (Magnesium)	≤ 0.0000005 %	Formaldehyde	≤ 0.0001 %
Ag (Silver)	≤ 0.000002 %	Mn (Manganese)	≤ 0.0000001 %		
Al (Aluminium)	≤ 0.000005 %	Mo (Molybdenum)	≤ 0.0000001 %		
As (Arsenic)	≤ 0.0000005 %	Na (Sodium)	≤ 0.00002 %		
Au (Gold)	≤ 0.000002 %	Ni (Nickel)	≤ 0.0000005 %		
B (Boron)	≤ 0.000002 %	Pb (Lead)	≤ 0.000002 %		
Ba (Barium)	≤ 0.000001 %	Pt (Platinum)	≤ 0.000002 %		
Be (Beryllium)	≤ 0.000001 %	Sb (Antimony)	≤ 0.0000005 %		
Bi (Bismuth)	≤ 0.000002 %	Sn (Tin)	≤ 0.000002 %		
Ca (Calcium)	≤ 0.00002 %	Sr (Strontium)	≤ 0.000002 %		
Cd (Cadmium)	≤ 0.000001 %	Ti (Titanium)	≤ 0.000001 %		

catalogue number	packing specs	volume in pack	pack in box
901.016.1000	plastic bottle	1 l	6 pieces
901.016.2500	plastic bottle	2.5 l	4 pieces

901.017 *Acetic acid 100 % -* *For liquid chromatography*

Specification

Assay (Alkalimetric)	≥ 99.8 %	K (Potassium)	≤ 0.00001 %	Evaporation residue	≤ 0.0005 %
Identity	passes test	Mg (Magnesium)	≤ 0.000005 %		
Colour	≤ 10 Hazen	Na (Sodium)	≤ 0.00002 %		
Al (Aluminium)	≤ 0.000002 %	HPLC gradient suitability test			
Ca (Calcium)	≤ 0.00001 %	(220, 254, 280nm) chromophoric impurities			
Cu (Copper)	≤ 0.000001 %	based on 4'Hydroxyacetophenon)	≤ 0.001 %		
Fe (Iron)	≤ 0.000005 %	Chromophore purity	≤ 99.999 %		

catalogue number	packing specs	volume in pack	pack in box
901.017.2501	glass bottle	2.5 l	4

Acetic acid 0.1 % in water

- -
- CAS-No: -
- EC-No: -
- EC index No: -
- M= -
- Vapour Pressure: ≈ 23 hPa (17 mm Hg)
- Specific density: ≈ 1 g/cm³ (20°C)
- Flash point: -
- Solubility in H_2O Fully miscible
- pH value: 3.3 at 22.9°C
- Melting point: ≈ 0°C
- Bulk density: -
- Boiling point: ≈ 100°C
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: -
- Results: -
- HS-CODE: 3824 99 96 ➤ LGK: 10-13
- Disposal: 28
- WGK: -
- UN: -

901.068 *Acetic acid 0.1 % in water -* *LC-MS*

Specification

Assay (T)	0.095 - 0.105 %	pH	3.2 - 3.4
Appearance	Clear colorless liquid	LC-MS suitability test	passes test
Color (APHA, Pt-Co)	< 10	Al (Aluminum)	≤ 0.000005 %
T210 nm	≥ 20 %	Ca (Calcium)	≤ 0.000005 %
T230 nm	≥ 75 %	Fe (Iron)	≤ 0.000005 %
T254 nm	≥ 99 %	K (Potassium)	≤ 0.000005 %
Grad. elution H.Peak at 210 nm	≥ 0.05 AU	Mg (Magnesium)	≤ 0.000005 %
Grad. elution H.Peak at 254 nm	≥ 0.01 AU	Na (Sodium)	≤ 0.000005 %

catalogue number	packing specs	volume in pack	pack in box
901.068.2501	glass bottle	2.5 l	4

Acetone



- C_3H_6O
- CAS-No: 67-64-1
- EC-No: 200-662-2
- EC index No: 606-001-00-8
- M= 58.08 g/mol
- Vapour Pressure: 233 hPa (20°C)
- Specific density: 0.79 g/cm³ (20°C)
- Flash point: -17°C
- Solubility in H_2O Soluble at 20°C
- pH value: 5 - 6 at 395 g/l 20°C
- Melting point: -95.4°C
- Bulk density: -
- Boiling point: 56°C
- Ignition temperature: 465°C
- Explosive limit: 12.8-2.6 %(V)
- Viscosity kinematic: 0.417 mm²/s
- Flammable, Irritant
- H-STATEMENT/EUH: H225;319;336, EUH066 / P210;240;305+351+338;403+233
- Test Type:LD50 Oral rat; LD50 Dermal rabbit
- Results: 5800 mg/kg; 20000 mg/kg
- HS-CODE: 2914 11 00 ➤ LGK: 3
- Disposal: 1 ➤ WGK: 1
- UN: 1090

901.023 *Acetone* - *Ph Eur, BP, JPE, NF*

Specification

Assay (GC)	≥ 99.5 %
Identity (IR)	passes test
Identity B (Ph Eur)	passes test
Identity C (Ph Eur)	passes test
Identity B (NF)	passes test
Identity (JPE)	passes test
Water-insoluble substances	passes test
Appearance of solution	passes test
Acidity or alkalinity	passes test
Acidity	≤ 0.002 %
Alkalinity	≤ 0.0005 %
Density (d 20°C / 20°C)	0.790 - 0.794
Density (d 25°C / 25°C)	≤ 0.790
Reducing substances	passes test
Readily oxidizable substances	passes test
Potassium permanganate-reducing substances	passes test
Phenol	passes test
Related substances (GC) (Methanol (Impurity A))	≤ 0.05 %
Related substances (GC) (2-Propanol (Impurity B))	≤ 0.05 %
Related substances (GC) (Benzene (Impurity C))	≤ 0.0002 %
Related substances (GC) (other impurity)	≤ 0.05 %
Cyclohexane (residual solvent) (GC)	≤ 0.01 %
Evaporation residue	≤ 0.002 %
Water	≤ 0.3 %
Color	≤ 10 Hazen
Aldehydes (as formaldehyde)	≤ 0.002 %
Al (Aluminium)	≤ 0.00001 %
Ba (Barium)	≤ 0.000005 %
Ca (Calcium)	≤ 0.00005 %
Cd (Cadmium)	≤ 0.000005 %
Co (Cobalt)	≤ 0.000002 %
Cr (Chromium)	≤ 0.000002 %
Cu (Copper)	≤ 0.000002 %
Fe (Iron)	≤ 0.00002 %
Mg (Magnesium)	≤ 0.00001 %
Mn (Manganese)	≤ 0.000002 %
Ni (Nickel)	≤ 0.000002 %
Pb (Lead)	≤ 0.000005 %
Zn (Zinc)	≤ 0.00005 %
K (Potassium)	≤ 0.00001 %
Na (Sodium)	≤ 0.0001 %
Sr (Strontium)	≤ 0.000002 %

catalogue number	packing specs	volume in pack	pack in box
901.023.2501	glass bottle	2.5 l	4 pieces

901.026 *Acetone* - *ACS Reagent, Reag. ISO, Reag. Ph. Eur.*

Specification

Assay (GC)	≥ 99.5 %
Appearance of the solution	passes test
Color (APHA)	≤ 10
Non-volatile matter	≤ 0.001 %
Water insoluble matter	passes test
Water (Karl Fischer)	≤ 0.2 %
Solubility in water	passes test
Free acid (as CH_3COOH)	≤ 0.0015 %
Free alkali (as NH_3)	≤ 0.0008 %
Acidity or alkalinity	passes test
Aluminium (Al)	≤ 0.00005 %
Boron (B)	≤ 0.000002 %
Barium (Ba)	≤ 0.00001 %
Bismuth (Bi)	≤ 0.00001 %
Calcium (Ca)	≤ 0.00005 %
Cadmium (Cd)	≤ 0.000005 %
Cobalt (Co)	≤ 0.000001 %
Chromium (Cr)	≤ 0.000002 %
Copper (Cu)	≤ 0.000002 %
Iron (Fe)	≤ 0.00001 %
Potassium (K)	≤ 0.00005 %
Lithium (Li)	≤ 0.00001 %
Magnesium (Mg)	≤ 0.00001 %
Manganese (Mn)	≤ 0.000001 %
Molybdenum (Mo)	≤ 0.00001 %
Sodium (Na)	≤ 0.00005 %
Nickel (Ni)	≤ 0.000002 %
Lead (Pb)	≤ 0.000002 %
Tin (Sn)	≤ 0.00001 %
Strontium (Sr)	≤ 0.00001 %
Zinc (Zn)	≤ 0.000005 %
$KMnO_4$ red. matter (as O)	≤ 0.0002 %
Related substances (GC)	passes test
Benzene (GC)	≤ 0.0002 %
Methanol (GC)	≤ 0.05 %
2-propanol (GC)	≤ 0.05 %
Ethanol (GC)	≤ 0.01 %
Reducing impurities	passes test
Aldehydes (as HCHO)	≤ 0.001 %

catalogue number	packing specs	volume in pack	pack in box
901.026.2501	glass bottle	2.5 l	4 pieces

901.027 *Acetone* - *For liquid chromatography*

Specification

Purity (GC)	≥ 99.8 %
Identity (IR)	passes test
Evaporation residue	≤ 0.0002 %
Water	≤ 0.05 %
Acidity	≤ 0.0002 meq/g
Alkalinity	≤ 0.0002 meq/g
Transmission (at 335 nm)	≥ 50 %
Transmission (at 340 nm)	≥ 80 %
Transmission (at 350 nm)	≥ 98 %
Filtered by 0.2 µm filter	

catalogue number	packing specs	volume in pack	pack in box
901.027.2501	glass bottle	2.5 l	4 pieces

lab chemicals & reagents

Acetonitrile



- C_2H_3N
- CAS-No: 75-05-8
- EC-No: 200-835-2
- EC index No: 608-001-00-3
- M= 41.05 g/mol
- Vapour Pressure: 97 hPa (20°C)
- Specific density: 0.786 g/cm³ (20°C)
- Flash point: 2°C closed cup
- Solubility in H_2O Soluble at 20°C
- pH value: -
- Melting point: - 45.7°C
- Bulk density: -
- Boiling point: 81.6°C (1013 hPa)
- Ignition temperature: 524°C
- Explosive limit: 3.0 - 17 %(V)
- Viscosity kinematic: -
- Flammable, Harmful
- H-STATEMENT/EUH: H225;302+312+332;319/ P210;240;302+352;305+351+338;403+233
- Test Type: LD50 Oral rat
- Results: 2730 mg/kg
- HS-CODE: 2926 90 70 ➤ LGK: 3
- Disposal: 1 ➤ WGK: 2
- UN: 1648

901.037 *Acetonitrile -* *Gradient grade for Liquid Chromatography*

Specification

Assay (GC)	≥ 99.9 %	UV Transmission (at 193 nm)	≥ 60 %
Residue on Evaporation	≤ 0.0003 %	UV Transmission (at 195 nm)	≥ 80 %
Water	≤ 0.02 %	UV Transmission (at 200 nm)	≥ 95 %
Refractive index (n 20/D)	1.343 - 1.345	UV Transmission (at 220 nm)	≥ 98 %
Acidity (as CH_3COOH)	≤ 0.002 %	UV Transmission (at 230 nm)	≥ 98 %
Alkalinity (as NH_3)	≤ 0.0002 %	UV Transmission (at 254 nm)	≥ 99 %
Gradient Highest peak at 210 nm	≤ 2.0 mAU	Solubility	50 % solution in water
Gradient Highest peak at 254 nm	≤ 0.5 mAU	Filtered through 0.2 µm filter	

catalogue number	packing specs	volume in pack	pack in box
901.037.2501	glass bottle	2.5 l	4 pieces
901.037.2506	glass bottle	2.5 l	4 pieces

901.038 *Acetonitrile -* *LC-MS*

Specification

Assay (GC, on anhydrous basis)	≥ 99.9 %	LC/MS Suitability (ESI+/as Reserpine)	passes test	Na (Sodium)	≤ 0.000005 %
Appearance	Clear colorless liquid	LC/MS Suitability (ESI-/as Reserpine)	passes test	Ni (Nickel)	≤ 0.000002 %
Color (APHA, Pt-Co)	< 10	Al (Aluminium)	≤ 0.00005 %	Ag (Silver)	≤ 0.00001 %
Propionitrile(GC)	≤ 0.2 %	Ba (Barium)	≤ 0.00001 %	Pb (Lead)	≤ 0.000002 %
Residue after Evaporation	≤ 0.0002 %	Bi (Bismuth)	≤ 0.00001 %	Tin (Sn)	≤ 0.00001 %
Water	≤ 0.01 %	Ca (Calcium)	≤ 0.000005 %	Strontium (Sr)	≤ 0.00001 %
Acidity	≤ 0.001 %	Cd (Cadmium)	≤ 0.000005 %	Zinc (Zn)	≤ 0.00001 %
Alkalinity	≤ 0.0001 %	Co (Cobalt)	≤ 0.000002 %	Filtered through 0.2 µm filter	
Grad. elution H.Peak at 210 nm	≤ 0.001 AU	Cr (Chromium)	≤ 0.000002 %		
Grad. elution H.Peak at 254 nm	≤ 0.0002 AU	Cu (Copper)	≤ 0.000002 %		
Grad. elution drift at 210 nm	≤ 0.012 AU	Fe (Iron)	≤ 0.000002 %		
F254 nm (as Quinine)	≤ 0.00000005 %	K (Potassium)	≤ 0.000005 %		
F365 nm (as Quinine)	≤ 0.00000005 %	Li (Lithium)	≤ 0.00001 %		
Transmission (at 195 nm)	≥ 78 %	Mg (Magnesium)	≤ 0.00001 %		
Transmission (at 200 nm)	≥ 95 %	Mn (Manganese)	≤ 0.000002 %		
Transmission (at 230 nm)	≥ 99 %	Mo (Molybdenum)	≤ 0.00001 %		

catalogue number	packing specs	volume in pack	pack in box
901.038.2501	glass bottle	2.5 l	4 pieces

Acetonitrile with 0.1 % Acetic acid



- -
- CAS-No: -
- EC-No: -
- EC index No: -
- M= -
- Vapour Pressure: ≈ 97 hPa (20°C)
- Specific density: ≈ 0.786 g/cm³
- Flash point: ≈ 2°C
- Solubility in H_2O Fully miscible
- pH value: -
- Melting point: ≈ - 45.7°C
- Bulk density: -
- Boiling point: ≈ 81.6°C (1013hPa)
- Ignition temperature: ≈ 524°C
- Explosive limit: 3.0 - 17 %(V)
- Viscosity kinematic: -
- Flammable, Harmful
- H-STATEMENT/EUH: H225;302+312+332;319/ P210;240;302+352;305+351+338;403+2333
- Test Type: -
- Results: -
- HS-CODE: 3824 99 92 ➤ LGK: 3
- Disposal: 1 ➤ WGK: 2
- UN: 1648

901.078 *Acetonitrile with 0.1 % Acetic acid -* *LC-MS*

Specification

Assay (GC, ACN Basis)	99.5 - 100 %	T210 nm	≥ 20 %
Assay (T)	0.093 - 0.107 %	T230 nm	≥ 50 %
Appearance	Clear colorless liquid	T254 nm	≥ 90 %
Color (APHA, Pt-Co)	≤ 10	A210 nm	≤ 0.698 AU
Ca (Calcium)	≤ 0.00005 %	A230 nm	≤ 0.301 AU
K (Potassium)	≤ 0.00005 %	A254 nm	≤ 0.045 AU
Mg (Magnesium)	≤ 0.00005 %	Grad elution H.Peak at 254 nm	≤ 50 mAU
Na (Sodium)	≤ 0.0002 %	Trace elements analysis	passes test
LC-MS Suitability test	passes test	Filtered through 0.2 µm	

catalogue number	packing specs	volume in pack	pack in box
901.078.2501	glass bottle	2.5 l	4 pieces

Acetonitrile with 0.1 % Trifluoroacetic acid



- -
- CAS-No: -
- EC-No: -
- EC index No: -
- M= -
- Vapour Pressure: ≈ 97 hPa (20°C)
- Specific density: ≈ 0.786 g/cm^3
- Flash point: ≈ 2°C
- Solubility in H_2O Fully miscible
- pH value: -
- Melting point: ≈ -45.7°C
- Bulk density: -
- Boiling point: ≈ 81.6°C (178°F)
- Ignition temperature: ≈ 524°C
- Explosive limit: 3.0 - 17 %(V)
- Viscosity kinematic: -
- Flammable, Harmful
- H-STATEMENT/EUH: H225;302;311;319 / P210;240;302+352;305+351+338;403+233
- Test Type: -
- Results: -
- HS-CODE: 3824 99 92
- LGK: 3 ➤ Disposal: 1
- WGK: 2 ➤ UN: 1648

901.088 *Acetonitrile with 0.1 % Trifluoroacetic acid* - *LC-MS*

Specification

Assay (GC)	≥ 99.5 %	Transmittance at 230 nm	≥ 50 %
Assay Trifluoroacetic acid	0.093 - 0.107 %	Transmittance at 254 nm	≥ 90 %
Appearance	Clear colorless liquid	LC-MS application	passes test
Calcium (Ca)	≤ 0.00005 %	Grad. elution drift at 254 nm	≤ 0.05 AU
Potassium (K)	≤ 0.00005 %	Filtered through 0.2 µm	
Magnesium (Mg)	≤ 0.00005 %		
Sodium (Na)	≤ 0.0002 %		

catalogue number	packing specs	volume in pack	pack in box
901.088.2501	glass bottle	2.5 l	4 pieces

Alcian blue 8GX

- C.I NO: 74240
- $C_{56}H_{68}Cl_4CuN_{16}S_4$
- CAS-No: 33864-99-2
- EC-No: 251-705-7
- EC index No: -
- M= 1298.88 g/mol
- Solubility in H_2O Soluble in water
- Colour: Greenish black crystalline
- Odour: -
- pH value: Not applicable
- Melting point: -
- -
- H-STATEMENT/EUH: -
- HS-CODE: 3204.1900
- LGK: 10 - 13

903.D01 *Alcian blue 8GX* - *(C.I.74240) for microscopy*

Specification

Appearance	Greenish black crystalline powder	Water (by KF)	≤ 35 %
Absorption maxima in DMSO	675 - 680 nm	Suitability for microscopy	passes test
Specific absorptivity (A1 %1cm 0.005g/l; DMSO)	≥ 700		

catalogue number	packing specs	weight in pack	pack in box
903.D01.0010	plastic bottle	10 g	6 pieces
903.D01.0025	plastic bottle	25 g	6 pieces
903.D01.0050	plastic bottle	50 g	6 pieces
903.D01.0100	plastic bottle	100 g	6 pieces

Aniline Blue (Spirit soluble)



- C.I NO: 42775
- $C_{32}H_{25}N_3O_9S_3Na_2$
- CAS-No: 8004-91-9
- EC-No: -
- EC index No: -
- M= 737.74 g/mol
- Solubility in H_2O -
- Colour: Black
- Odour: Odorless
- pH value: Not applicable
- Melting point: -
- Irritant
- H-STATEMENT/EUH: H319;315;335 / P280;271;261;264;302+352;332+313;305+351+338;304+340;363;403+233;405;501
- HS-CODE: 3204.1200
- LGK: -

903.D02 *Aniline Blue (Spirit soluble)* - *(C.I.42775) for microscopy*

Specification

Appearance	Reddish-purple to black powder	Absorption maxima (in Methanol)	591 - 595 nm

catalogue number	packing specs	weight in pack	pack in box
903.D02.0010	plastic bottle	10 g	6 pieces
903.D02.0025	plastic bottle	25 g	6 pieces
903.D02.0050	plastic bottle	50 g	6 pieces
903.D02.0100	plastic bottle	100 g	6 pieces

Aniline Blue (Water soluble)



- C.I NO: 42780
- $C_{37}H_{27}N_3Na_2O_9S_3$
- CAS-No: 28983-56-4
- EC-No: 249-352-9
- EC index No: -
- M= 799.81 g/mol
- Solubility in H_2O Soluble in water
- Colour: Black
- Odour: Odorless
- pH value: Not applicable
- Melting point: -
- Irritant
- H-STATEMENT/EUH: H319;315;335 / P280;271;261;264;302+352;332+313;305+351+338;304+340;363;403+233;405;501
- HS-CODE: 3204.1200
- LGK: 10-13

903.D03 *Aniline Blue (Water soluble) -* *(C.I.42780) for microscopy*

Specification

Appearance	Dark Brown glistening crystalline powder or crystals	Absorption maxima (0.005M HCl) Ratio λ max P±15 nm	595 - 610 nm 1.00 - 1.03

catalogue number	packing specs	weight in pack	pack in box
903.D03.0010	plastic bottle	10 g	6 pieces
903.D03.0025	plastic bottle	25 g	6 pieces
903.D03.0050	plastic bottle	50 g	6 pieces
903.D03.0100	plastic bottle	100 g	6 pieces

Ammonium acetate

- CH_3COONH_4
- CAS-No: 631-61-8
- EC-No: 211-162-9
- EC index No: -
- M= 77.08 g/mol
- Vapour Pressure: -
- Specific density: 1.17 g/cm³ (20°C)
- Flash point: 136°C (open cup)
- Solubility in H_2O 1480 g/l
- pH value: 6.7 - 7.3 (50 g/l, H^2O, 25°C)
- Melting point: 114°C
- Bulk density: 410 kg/m³
- Boiling point: (decomposition)
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: -
- Results: -
- HS-CODE: 2915 29 00
- LGK: 10 - 13
- Disposal: 3
- WGK: 2
- UN: 1

903.026 *Ammonium acetate -* *For analysis ACS,Reag. Ph Eur*

Specification

Assay	≥ 98.0 %	Ca (Calcium)	≤ 0.001 %
Insoluble matter	≤ 0.005 %	Fe (Iron)	≤ 0.0002 %
pH-value (5 %; water, 25 °C)	6.7 - 7.3	Substances reducing potassium permanganate (as formic acid)	≤ 0.005 %
Chloride (Cl)	≤ 0.0005 %	Residue on ignition (as sulphate)	≤ 0.01 %
Nitrate (NO_3)	≤ 0.001 %	Water	≤ 2.0 %
Sulphate (SO_4)	≤ 0.001 %		
Heavy metals (as Pb)	≤ 0.0002 %		

catalogue number	packing specs	weight in pack	pack in box
903.026.0500	plastic bottle	500 g	6 pieces
903.026.1000	plastic bottle	1 kg	6 pieces

Ammonium chloride



- NH_4Cl
- CAS-No: 12125-02-9
- EC-No: 235-186-4
- EC index No: 017-014-00-8
- M= 53.49 g/mol
- Vapour Pressure: 1.3 hPa (30°C)
- Specific density: 1.53 g/cm³ (25°C)
- Flash point: not applicable
- Solubility in H_2O 372 g/l (20°C)
- pH value: 4.7 (200 g/l, H_2O, 25°C)
- Melting point: 338°C
- Bulk density: 600 - 900 kg/m³
- Boiling point: not applicable
- Ignition temperature: >400°C
- Explosive limit: -
- Viscosity kinematic: -
- Harmful, Irritant
- H-STATEMENT/EUH: H302;319 / P280; 305+351+338;301+312
- Test Type: LD50 Oral rat
- Results: 1410 mg/kg
- HS-CODE: 2827 10 00
- LGK: 10 - 13 ➤ Disposal: 14
- WGK: 1 ➤ UN: -

903.033 *Ammonium chloride* - *Extra pure, Ph Eur, BP, USP*

Specification

Assay	≥ 99.7 %	Sulphate (SO_4)	≤ 0.015 %	Residue on ignition	≤ 0.1 %
Identity	passes test	Thiocyanate	passes test		
Appearance of solution	passes test	Heavy metals (as Pb)	≤ 0.001 %		
Acidity or alkalinity	passes test	As (Arsenic)	≤ 0.0001 %		
Ash	≤ 0.05 %	Ca (Calcium)	≤ 0.001 %		
Sulphated Ash	≤ 0.1 %	Cd (Cadmium)	≤ 0.0001 %		
Sodium Chloride	≤ 0.05 %	Fe (Iron)	≤ 0.0003 %		
Water	≤ 0.1 %	Hg (Mercury)	≤ 0.00001 %		
pH-value	4.6 - 6.0	Pb (Lead)	≤ 0.0001 %		
Bromide, Iodide (Br,I)	passes test	Loss on Drying	≤ 0.5 %		

catalogue number	packing specs	weight in pack	pack in box
903.033.0500	plastic bottle	500 g	6 pieces
903.033.1000	plastic bottle	1 kg	6 pieces
903.033.5000	plastic bottle	5 kg	1 piece

903.036 *Ammonium chloride* - *For analysis ACS, ISO, Reag. Ph Eur*

Specification

Assay (argentometric)	≥ 99.8 %	Sulphate (SO_4)	≤ 0.002 %	Loss on Drying (105°C)	≤ 1.0 %
Assay (argentometric; calculated on dried substance)	99.0 - 100.5 %	Heavy metals (as Pb)	≤ 0.0005 %	Residue on ignition (as sulphate)	≤ 0.01 %
		Ca (Calcium)	≤ 0.0005 %		
Identity	passes test	Cu (Copper)	≤ 0.0002 %		
Appearance of solution	passes test	Fe (Iron)	≤ 0.0002 %		
Insoluble matter	≤ 0.005 %	K (Potassium)	≤ 0.005 %		
Acidity or alkalinity	passes test	Mg (Magnesium)	≤ 0.0005 %		
pH-value (5 %; water, 25 °C)	4.5 - 5.5	Na (Sodium)	≤ 0.005 %		
Bromide, Iodide (Br,I)	passes test	Ni (Nickel)	≤ 0.0001 %		
Nitrate (NO_3)	≤ 0.0005 %	Pb (Lead)	≤ 0.0001 %		
Phosphate (PO_4)	≤ 0.0002 %	Zn (Zinc)	≤ 0.0002 %		

catalogue number	packing specs	weight in pack	pack in box
903.036.0500	plastic bottle	500 g	6 pieces
903.036.1000	plastic bottle	1 kg	6 pieces

Ammonium iron(II) sulfate hexahydrate



- $H_8FeN_2O_8S_2*6H_2O$
- CAS-No: 7783-85-9
- EC-No: 233-151-8
- EC index No: -
- M= 392.14 g/mol
- Vapour Pressure: -
- Specific density: 1.86 g/cm³ (20°C)
- Flash point: -
- Solubility in H_2O 269 g/l (20°C)
- pH value: 3 - 5 (50 g/l, H_2O, 20°C)
- Melting point: 100°C (decomposition)
- Bulk density: 900 kg/m³
- Boiling point: not applicable
- Ignition temperature: -
- Explosive limit: not applicable
- Viscosity kinematic: -
- Warning
- H-STATEMENT/EUH: H319;315;335 / P264;280;321;304+340;332+313;405
- Test Type: LD50 Oral rat
- Results: 3250 mg/kg
- HS-CODE: 2842 90 80
- LGK: 10 - 13 ➤ Disposal: 14
- WGK: 1 ➤ UN: -

903.046 *Ammonium iron(II) sulfate hexahydrate* - *For analysis, ISO*

Specification

Assay (Redox Titration)	99.0 - 101.5 %	K (Potassium)	≤ 0.01 %		
pH-value (5 %; water)	3.0 - 5.0	Mg (Magnesium)	≤ 0.01 %		
Chloride (Cl)	≤ 0.001 %	Mn (Manganese)	≤ 0.05 %		
Phosphate (PO_4)	≤ 0.002 %	Na (Sodium)	≤ 0.01 %		
Iron(III)-salts (Fe^{3+})	≤ 0.02 %	Pb (Lead)	≤ 0.001 %		
Ca (Calcium)	≤ 0.002 %	Zn (Zinc)	≤ 0.003 %		
Cu (Copper)	≤ 0.002 %				

catalogue number	packing specs	weight in pack	pack in box
903.046.0500	plastic bottle	500 g	6 pieces
903.046.1000	plastic bottle	1 kg	6 pieces

Ammonia solution 25%



- -
- CAS-No: 1336-21-6
- EC-No: 215-647-6
- EC index No: -
- M= 35.05 g/mol
- Vapour Pressure: 483 hPa (20°C)
- Specific density: 0.903 g/cm³ (20°C)
- Flash point: -
- Solubility in H_2O soluble at 20°C
- pH value: 11.7 (1 %)
- Melting point: -57.5°C
- Bulk density: -
- Boiling point: 37.7°C (1013 hPa)
- Ignition temperature: -
- Explosive limit: 15.4 - 33.6 %(V)
- Viscosity kinematic: -
- Corresive, Dangerous for environment
- H-STATEMENT/EUH: H290;314;335;400 / P280;273;303+361+353;304+340+310; 305+351+338;391
- Test Type: - ➤ Results: -
- HS-CODE: 2814 20 00
- LGK: 8 B ➤ Disposal: 13
- WGK: 2 ➤ UN: 2672

903.016 *Ammonia solution 25 % -* *For analysis*

Specification

Assay (NH_3)	≥ 25.0 %	Cr (Chromium)	≤ 0.000005 %	Ti (Titanium)	≤ 0.00001 %
Description	Clear liquid with a pungent odor	Cu (Copper)	≤ 0.00001 %	Tl (Thallium)	≤ 0.000005 %
Solubility	Misciple with water	Fe (Iron)	≤ 0.00001 %	Zn (Zinc)	≤ 0.00001 %
Carbonate (as CO_2)	≤ 0.001 %	Ga (Gallium)	≤ 0.000002 %	Substances reducing potassium permanganate (as O)	≤ 0.0005 %
Chloride (Cl)	≤ 0.00005 %	In (Indium)	≤ 0.000002 %	Residue on ignition (as SO_4)	≤ 0.001 %
Phosphate (PO_4)	≤ 0.00005 %	K (Potassium)	≤ 0.00005 %	Non volatile matter	≤ 0.001 %
Sulphate (SO_4)	≤ 0.0002 %	Li (Lithium)	≤ 0.000002 %		
Sulphide (S)	≤ 0.00002 %	Mg (Magnesium)	≤ 0.00001 %		
Ag (Silver)	≤ 0.000002 %	Mn (Manganese)	≤ 0.000005 %		
Al (Aluminium)	≤ 0.00005 %	Mo (Molybdenum)	≤ 0.000005 %		
Au (Gold)	≤ 0.00001 %	Na (Sodium)	≤ 0.00005 %		
Ba (Barium)	≤ 0.000005 %	Ni (Nickel)	≤ 0.000005 %		
Bi (Bismuth)	≤ 0.00001 %	Pb (Lead)	≤ 0.000005 %		
Ca (Calcium)	≤ 0.00005 %	Pt (Platinum)	≤ 0.00001 %		
Cd (Cadmium)	≤ 0.000005 %	Sn (Tin)	≤ 0.00001 %		
Co (Cobalt)	≤ 0.000005 %	Sr (Strontium)	≤ 0.00001 %		

catalogue number	packing specs	volume in pack	pack in box
903.016.1000	plastic bottle	1 l	6 pieces
903.016.2500	plastic bottle	2.5 l	4 pieces
903.016.5000	plastic bottle	5 l	4 pieces

Ammonium sulfate

- $H_8N_2O_4S$
- CAS-No: 7783-20-2
- EC-No: 231-984-1
- EC index No: -
- M= 132.14 g/mol
- Vapour Pressure: -
- Specific density: 1.77 g/cm³ (20°C)
- Flash point: Not applicable
- Solubility in H_2O 754 g/l (20°C)
- pH value: 5 (100 g/l, H_2O)
- Melting point: 280 °C (decomposition)
- Bulk density: 850 kg/m³
- Boiling point: not applicable
- Ignition temperature: -
- Explosive limit: not applicable
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD 50 oral rat
- Results: 2840 mg/kg
- HS-CODE: 3105 10 00
- LGK: 10 - 13 ➤ Disposal: 14
- WGK: 1
- UN: -

903.056 *Ammonium sulfate -* *ACS, ISO, Reag. Ph Eur*

Specification

Assay (alkalimetric)	≥ 99.5 %	Cd (Cadmium)	≤ 0.0001 %		
Insoluble matter	≤ 0.001 %	Cr (Chromium)	≤ 0.000075 %		
pH-value (5 %; water; 25°C)	5.0 - 6.0	Cu (Copper)	≤ 0.0002 %		
Chloride (Cl)	≤ 0.0003 %	Fe (Iron)	≤ 0.0002 %		
Nitrate (NO_3)	≤ 0.001 %	Mg (Magnesium)	≤ 0.0005 %		
Phosphate (PO_4)	≤ 0.0005 %	Pb (Lead)	≤ 0.0002 %		
Heavy metals (as Pb)	≤ 0.0005 %	Zn (Zinc)	≤ 0.0001 %		
Al (Aluminium)	≤ 0.000075 %	Residue on ignition (as sulphate)	≤ 0.005 %		
As (Arsenic)	≤ 0.00002 %	Loss on Drying (105°C)	≤ 0.1 %		
Ca (Calcium)	≤ 0.001 %				

catalogue number	packing specs	weight in pack	pack in box
903.056.0100	plastic bottle	100 g	6 pieces
903.056.1000	plastic bottle	1 kg	6 pieces

Auramine



- C.I NO: 41000
- $C_{17}H_{22}ClN_3$
- CAS-No: 2465-27-2
- EC-No: 219-567-2
- EC index No: 612-097-00-2
- M= 303.84 g/mol
- Solubility in H_2O 10 g/l at 20°C
- Colour: Yellow powder
- Odour: -
- pH value: Not applicable
- Melting point: > 250°C
- Toxic
- H-STATEMENT/EUH: H311;302;351 / P280; 264; 270;302+352;301+312;363;361;405;501
- HS-CODE: 3204 13 00
- LGK: 10-13
- UN: 2811

904.D01 *Auramine -* *(C.I.41000) for microscopy*

Specification

Appearance	yellow coloured powder	Loss on drying (105°C)	≤ 10 %
Absorption maxima	429 - 433 nm	Suitability for microscopy	passes test
Absorptivity (A1 %1cm, Absorption maxima, pH 6.0 on dried substance)	≥ 900		

catalogue number	packing specs	weight in pack	pack in box
904.D01.0010	plastic bottle	10 g	6 pieces
904.D01.0025	plastic bottle	25 g	6 pieces
904.D01.0050	plastic bottle	50 g	6 pieces
904.D01.0100	plastic bottle	100 g	6 pieces

Benzene



- C_6H_6
- CAS-No: 71-43-2
- EC-No: 200-753-7
- EC index No: 601-020-00-8
- M= 78.11 g/mol
- Vapour Pressure: 101 hPa (20°C)
- Specific density: 0.88 g/cm³(20°C)
- Flash point: -11°C
- Solubility in H_2O 1.88 g/l at 23.5°C
- pH value: -
- Melting point: 5.5°C
- Bulk density: -
- Boiling point: 80.1°C (1013 hPa)
- Ignition temperature: 555°C
- Explosive limit: 1.2 - 8.0 %(V)
- Viscosity kinematic: -
- Flammable , Toxic
- H-STATEMENT/EUH: H340;350;225;304;315;319;372;412 / P201;210;240;273;301+330+331;302+352;305+351+338;314;403+233
- Test Type: LD50 Oral rat; LD50 Dermal rabbit
- Results: 5970 mg/kg; > 8260 mg/kg
- HS-CODE: 2902 20 00 - LGK: 3
- Disposal: 9 - WGK: 3 - UN: 1114

906.026 *Benzene* - *For analysis ACS, ISO, Reag. Ph Eur.*

Specification

Purity (GC)	≥ 99.7 %	Sulfur compounds (as S)	≤ 0.003 %	Pb (Lead)	≤ 0.00001 %
Appearance	clear	Readily carbonizable substances	passes test	Mg (Magnesium)	≤ 0.00001 %
Identity (IR)	passes test	Al (Aluminium)	≤ 0.00005 %	Mn (Manganese)	≤ 0.000002 %
Water	≤ 0.03 %	B (Boron)	≤ 0.000002 %	Sn (Tin)	≤ 0.00001 %
Colour	≤ 10 Hazen	Ba (Barium)	≤ 0.00001 %	Zn (Zinc)	≤ 0.00001 %
Acidity	≤ 0.00005 meq/g	Ca (Calcium)	≤ 0.00005 %		
Alkalinitiy	≤ 0.00005 meq/g	Cd (Cadmium)	≤ 0.000005 %		
Melting point	≥ 5.2 °C	Co (Cobalt)	≤ 0.000002 %		
Boiling point	79 - 81 °C	Cu (Copper)	≤ 0.000002 %		
Thiophene	≤ 0.0001 %	Fe (Iron)	≤ 0.00001 %		

catalogue number	packing specs	volume in pack	pack in box
906.026.2501	glass bottle	2.5 l	4 pieces

Bismarck brown ®

- C.I NO: 21010
- $C_{21}H_{24}N_8 \cdot 2HCl$
- CAS-No: 5421-66-9
- EC-No: 226-541-4
- EC index No: -
- M= 461.39 g/mol
- Solubility in H_2O Soluble in water
- Colour: Dark brown powder
- Odour: Odorless
- pH value: Not applicable
- Melting point: 222°C
- -
- H-STATEMENT/EUH: -
- HS-CODE: 3212.9090
- LGK: -

906.D01 *Bismarck brown ® -* *(C.I. 21010) for microscopy*

Specification

Appearance	Dark brown colored powder	Absorption maxima	about 468 nm

catalogue number	packing specs	weight in pack	pack in box
906.D01.0010	plastic bottle	10 g	6 pieces
906.D01.0025	plastic bottle	25 g	6 pieces
906.D01.0050	plastic bottle	50 g	6 pieces
906.D01.0100	plastic bottle	100 g	6 pieces

Bismarck brown Y (G)

- C.I NO: 21000
- $C_{18}H_{18}N_8 \cdot 2HCl$
- CAS-No: 10114-58-6
- EC-No: 233-314-3
- EC index No: -
- M= 419.31 g/mol
- Solubility in H_2O Appreciable (> 10 %)
- Colour: Dark brown powder
- Odour: -
- pH value: Not applicable
- Melting point: -
- -
- H-STATEMENT/EUH: -
- HS-CODE: 3212.9090
- LGK: -

906.D02 *Bismarck brown Y (G) -* *(C.I. 21000) for microscopy*

Specification

Appearance	Fine black powder	Absorption maxima	About 457 nm

catalogue number	packing specs	weight in pack	pack in box
906.D02.0010	plastic bottle	10 g	6 pieces
906.D02.0025	plastic bottle	25 g	6 pieces
906.D02.0050	plastic bottle	50 g	6 pieces
906.D02.0100	plastic bottle	100 g	6 pieces

Brilliant green indicator



- C.I NO: 42040
- $C_{27}H_{34}N_2O_4S$
- CAS-No: 633-03-4
- EC-No: 211-190-1
- EC index No: -
- M= 482.64 g/mol
- Solubility in H_2O -
- Colour: Yellow green powder
- Odour: Odorless
- pH value: Not applicable
- Melting point: 210°C
- Harmful
- H-STATEMENT/EUH: H302; 319 / P280; 264;270;301+312;305+351+338;337+313; 501
- HS-CODE: 3204.1300
- LGK: 10-13

908.D02 *Brilliant green indicator -* *(C.I. 42040)*

Specification

Appearance	Dark green crystalline powder	Absorption max. (in ethanol 50 %)	628 - 632 nm
Dye content	≥ 95 %		

catalogue number	packing specs	weight in pack	pack in box
908.D02.0010	plastic bottle	10 g	6 pieces
908.D02.0025	plastic bottle	25 g	6 pieces
908.D02.0050	plastic bottle	50 g	6 pieces
908.D02.0100	plastic bottle	100 g	6 pieces

Brilliant cresyl blue



- C.I NO: 51010
- $2C_{17}H_{20}N_3OCl \cdot ZnCl_2$
- CAS-No: 81029-05-2
- EC-No: 279-675-0
- EC index No: -
- M= 385.96 g/mol
- Solubility in H_2O -
- Colour: Dark violet
- Odour: Odorless
- pH value: Not applicable
- Melting point: 233 - 236°C
- Irritant
- H-STATEMENT/EUH: H319;315;335 / P280;271;261;264;302+352;332+313;305+ 351+338;304+340;363;403+233;405;501
- HS-CODE: 3204.1300
- LGK: -

908.D01 *Brilliant cresyl blue -* *(C.I. 51010) for microscopy*

Specification

Appearance	Dark violet color powder	Loss on drying (110°C)	≤ 10 %
Absorption maxima	623 - 628 nm	Ratio P-15/P+15	1.05 - 1.31
Specific absorptivity A 1 %/1cm (λ max; 0.005g/l ; ethanol 50 %)	≥ 1200		

catalogue number	packing specs	weight in pack	pack in box
908.D01.0010	plastic bottle	10 g	6 pieces
908.D01.0025	plastic bottle	25 g	6 pieces
908.D01.0050	plastic bottle	50 g	6 pieces
908.D01.0100	plastic bottle	100 g	6 pieces

Buffer Solution pH 1.00



- Specific density: 1.00427 g/cm³ (20 °C)
- Solubility in H_2O: Soluble
- LGK: 10-13
- WGK: 1
- UN: 3264
- Disposal: 28
- H-STATEMENT/EUH: H314 / P260;264;280; 301+330+331;303+361+353;304+340
- pH value: 0.98 - 1.02 at 20°C

908.B01 *Buffer Solution pH 1.00 ± 0.02 at 20 °C -* *(Hydrochloric Acid, Potassium Chloride)*

Specification

Measured with a combination glass electrode after multiple point calibration with reference materials. It is certified traceable to the following National Institute of Standards and Technology (USA), SRM 189c Potassium Tetraoxalate and SRM 185i Potassium Hydrogen Phthalate.

catalogue number	packing specs	volume in pack	pack in box
908.B01.1000	plastic bottle	1 l	6 pieces

Buffer Solution pH 2.00



- Specific density: 1.00554 g/cm³ (20 °C)
- Solubility in H_2O: Soluble
- LGK: 10-13
- WGK: 1
- UN: 3264
- Disposal: 28
- H-STATEMENT/EUH: H314 / P260;264;280; 301+330+331;303+361+353;304+340
- pH value: 1.98 - 2.02 at 20°C

908.B02 *Buffer Solution pH 2.00 ± 0.02 at 20°C -* *(Glycine, Hydrochloric Acid, Sodium Chloride)*

Specification

Measured with a combination glass electrode after multiple point calibration with reference materials. It is certified traceable to the following National Institute of Standards and Technology (USA), SRM 189c Potassium Tetraoxalate and SRM 185i Potassium Hydrogen Phthalate.

catalogue number	packing specs	volume in pack	pack in box
908.B02.1000	plastic bottle	1 l	6 pieces

Buffer Solution pH 3.00

- Specific density: 1.00085 g/cm³ (20 °C)
- Solubility in H_2O: Soluble
- LGK: 10-13
- WGK: 1
- UN: -
- Disposal: 28
- H-STATEMENT/EUH: -
- pH value: 2.98 - 3.02 at 20°C

908.B03 *Buffer Solution pH 3.00 ± 0.02 at 20°C* - *(Potassium Hydrogen Phthalate, Hydrochloric Acid)*

Specification

Measured with a combination glass electrode after multiple point calibration with reference materials. It is certified traceable to the following National Institute of Standards and Technology (USA), SRM 189c Potassium Tetraoxalate and SRM 185i Potassium Hydrogen Phthalate.

catalogue number	packing specs	volume in pack	pack in box
908.B03.1000	plastic bottle	1 l	6 pieces

Buffer Solution pH 4.00

- Specific density: 1.00014 g/cm³ (20 °C)
- Solubility in H_2O: Not miscible or difficult to mix
- LGK: 10-13
- WGK: 1
- UN: -
- Disposal: 28
- H-STATEMENT/EUH: -
- pH value: 3.99 - 4.01 at 20°C

908.B04 *Buffer Solution pH 4.00 ± 0.01 at 20°C* - *(Potassium Hydrogen Phthalate)*

Specification

Measured with a combination glass electrode after multiple point calibration with reference materials. It is certified traceable to the following National Institute of Standards and Technology (USA), SRM 185i Potassium Hydrogen Phthalate, SRM 186-I-g Potassium Dihydrogen Phosphate and SRM 186-II-g Disodium Hydrogen Phosphate.

catalogue number	packing specs	volume in pack	pack in box
908.B04.1000	plastic bottle	1 l	6 pieces

Buffer Solution pH 5.00

- Specific density: 1.0011 g/cm³ (20 °C)
- Solubility in H_2O: Soluble
- LGK: 10-13
- WGK: 1
- UN: -
- Disposal: 28
- H-STATEMENT/EUH: -
- pH value: 4.99 - 5.01 at 20°C

908.B05 *Buffer Solution pH 5.00 ± 0.01 at 20°C* - *(Potassium Hydrogen Phthalate, 1M Sodium Hydroxide)*

Specification

Measured with a combination glass electrode after multiple point calibration with reference materials. It is certified traceable to the following National Institute of Standards and Technology (USA), SRM 185i Potassium Hydrogen Phthalate, SRM 186-I-g Potassium Dihydrogen Phosphate and SRM 186-II-g Disodium Hydrogen Phosphate.

catalogue number	packing specs	volume in pack	pack in box
908.B05.1000	plastic bottle	1 l	6 pieces

Buffer Solution pH 6.00

- Specific density: 1.00019 g/cm³ (20 °C)
- Solubility in H_2O: Soluble
- LGK: 10-13
- WGK: 1
- UN: -
- Disposal: 28
- H-STATEMENT/EUH: -
- pH value: 5.99 - 6.01 at 20°C

908.B06 *Buffer Solution pH 6.00 ± 0.01 at 20°C* - *(Potassium di-hydrogen Orthophosphate, Disodium Hydrogen Orthophosphate)*

Specification

Measured with a combination glass electrode after multiple point calibration with reference materials. It is certified traceable to the following National Institute of Standards and Technology (USA), SRM 185i Potassium Hydrogen Phthalate, SRM 186-I-g Potassium Dihydrogen Phosphate and SRM 186-II-g Disodium Hydrogen Phosphate.

catalogue number	packing specs	volume in pack	pack in box
908.B06.1000	plastic bottle	1 l	6 pieces

Buffer Solution pH 7.00

- Specific density: 1.00005 g/cm³ (20 °C)
- Solubility in H_2O: Soluble
- LGK: 10-13
- WGK: 1
- UN: -
- Disposal: 28
- H-STATEMENT/EUH: -
- pH value: 6.99 - 7.01 at 20°C

908.B07 *Buffer Solution pH 7.00 ± 0.01 at 20°C* - *(Potassium di-hydrogen Phosphate, Disodium Hydrogen Phosphate)*

Specification

Measured with a combination glass electrode after multiple point calibration with reference materials. It is certified traceable to the following National Institute of Standards and Technology (USA), SRM 185i Potassium Hydrogen Phthalate, SRM 186-I-g Potassium Dihydrogen Phosphate and SRM 186-II-g Disodium Hydrogen Phosphate.

catalogue number	packing specs	volume in pack	pack in box
908.B07.1000	plastic bottle	1 l	6 pieces

lab chemicals & reagents

Buffer Solution pH 8.00



- Specific density: 1.03297 g/cm³ (20 °C)
- Solubility in H_2O: Soluble
- LGK: 10-13 ➤ WGK: 1
- UN: -
- Disposal: 28
- H-STATEMENT/EUH: H360 / P280;201; 202; 308+313;405;501
- pH value: 7.99 - 8.01 at 20°C

908.B08 *Buffer Solution pH 8.00 ± 0.01 at 20°C -* *(Di-sodium tetraborate, 1M Hydrochloric Acid)*

Specification

Measured with a combination glass electrode after multiple point calibration with reference materials. It is certified traceable to the following National Institute of Standards and Technology (USA), SRM 191d-I Sodium Bicarbonate, SRM 191d-II Sodium Carbonate, SRM 186-I-g Potassium Dihydrogen Phosphate and SRM 186-II-g Disodium Hydrogen Phosphate.

catalogue number	packing specs	volume in pack	pack in box
908.B08.1000	plastic bottle	1 l	6 pieces

Buffer Solution pH 9.00



- Specific density: 1.02637 g/cm³ (20 °C)
- Solubility in H_2O: Soluble
- LGK: 10-13 ➤ WGK: 1
- UN: -
- Disposal: 28
- H-STATEMENT/EUH: H360 / P280;201;202; 308+313;405;501
- pH value: 8.99 - 9.01 at 20°C

908.B09 *Buffer Solution pH 9.00 ± 0.01 at 20°C -* *(Di-sodium Tetraborate, 1M Hydrochloric Acid)*

Specification

Measured with a combination glass electrode after multiple point calibration with reference materials. It is certified traceable to the following National Institute of Standards and Technology (USA), SRM 191d-I Sodium Bicarbonate, SRM 191d-II Sodium Carbonate, SRM 186-I-g Potassium Dihydrogen Phosphate and SRM 186-II-g Disodium Hydrogen Phosphate.

catalogue number	packing specs	volume in pack	pack in box
908.B09.1000	plastic bottle	1 l	6 pieces

Buffer Solution pH 10.00

- Specific density: 1.0291 g/cm³ (20 °C)
- Solubility in H_2O: Not miscible or difficult to mix
- LGK: 10-13 ➤ WGK: -
- UN: - ➤ Disposal: 28
- H-STATEMENT/EUH: -
- pH value: 9.99 - 10.01 at 20°C

908.B10 *Buffer Solution pH 10.00 ± 0.01 at 20°C -* *(Di-sodium Tetraborate, 1M Sodium Hydroxide)*

Specification

Measured with a combination glass electrode after multiple point calibration with reference materials. It is certified traceable to the following NIST(USA), SRM 191d-I Sodium Bicarbonate, SRM 191d-II Sodium Carbonate, SRM 186-I-g Potassium Dihydrogen Phosphate and SRM 186-II-g Disodium Hydrogen Phosphate.

catalogue number	packing specs	volume in pack	pack in box
908.B10.1000	plastic bottle	1 l	6 pieces

Buffer Solution pH 11.00

- Specific density: 1.00564 g/cm³ (20 °C)
- Solubility in H_2O: Soluble
- LGK: 10-13 ➤ WGK: 1
- UN: - ➤ Disposal: 28
- H-STATEMENT/EUH: -
- pH value: 10.95 - 11.05 at 20°C

908.B11 *Buffer Solution pH 11.00 ± 0.05 at 20°C -* *(Glycine, Sodium Chloride, Sodium Hydroxide)*

Specification

Measured with a combination glass electrode after multiple point calibration with reference materials. It is certified traceable to the following National Institute of Standards and Technology (USA), SRM 191d-I Sodium Bicarbonate, SRM 191d-II Sodium Carbonate, SRM 186-I-g Potassium Dihydrogen Phosphate and SRM 186-II-g Disodium Hydrogen Phosphate.

catalogue number	packing specs	volume in pack	pack in box
908.B11.1000	plastic bottle	1 l	6 pieces

1-Butanol



- $C_4H_{10}O$
- CAS-No: 71-36-3
- EC-No: 200-751-6
- EC index No: 603-004-00-6
- M= 74.12 g/mol
- Vapour Pressure: 6.7 hPa (20 °C)
- Specific density: 0.81 g/cm³ (20 °C)
- Flash point: 34°C closed cup
- Solubility in H_2O miscible
- pH value: 7 (70 g/l, H_2O, 20 °C)
- Melting point: -89°C
- Bulk density: -
- Boiling point: 116 - 118°C (1013 hPa)
- Ignition temperature: 340°C
- Explosive limit: 1.4 - 11.3 %(V)
- Viscosity kinematic: -
- Harmful , Irritant
- H-STATEMENT/EUH: H226;302;315;318; 335;336 / P210;280;302+352; 305+351+338;313
- Test Type: LD50 Oral rat; LD50 Dermal rabbit
- Results: 790 mg/kg ; 3400 mg/kg
- HS-CODE: 2905 13 00 ➤ LGK: 3
- Disposal: 1 ➤ WGK: 1
- UN: 1120

908.017 *1-Butanol -* *For liquid chromatography*

Specification

Purity (GC)	≥ 99.8 %	Alkalinity	≤ 0.0002 meq/g
Identity (IR)	passes test	Transmission (at 230 nm)	≥ 75 %
Evaporation residue	≤ 0.0002 %	Transmission (at 240 nm)	≥ 85 %
Water	≤ 0.05 %	Transmission (from 310 nm)	≥ 99 %
Acidity	≤ 0.0002 meq/g	Filtered by 0.2 µm filter	

catalogue number	packing specs	volume in pack	pack in box
908.017.2501	glass bottle	2.5 l	4 pieces

Butane-1-sulfonic acid sodium salt

- $C_4H_9NaO_3S$
- CAS-No: 2386-54-1
- EC-No: 219-201-1
- EC index No: -
- M= 160.17 g/mol
- Vapour Pressure: -
- Specific density: 1.1 g/cm³ (20°C)
- Flash point: -
- Solubility in H_2O -
- pH value: -
- Melting point: >310°C
- Bulk density: -
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: -
- Results: -
- HS-CODE: 2904 10 00
- LGK: 10-13
- Disposal: 3
- WGK: - ➤ UN: -

908.04P *Butane-1-sulfonic acid sodium salt* - *for ion pair chromatography*

Specification

Assay (alkalimetric, calculated on dried substance)	≥ 99.0 %	UV-transmission (0.005 mol/l; 1 cm; Water) (at 200 nm)	≥ 70 %
Identity (IR-spectrum)	passes test	UV-transmission (0.005 mol/l; 1 cm; Water) (at 220 nm)	≥ 90 %
pH (100 g/l, water)	5.0 - 7.0	UV-transmission (0.005 mol/l; 1 cm; Water) (at 250 nm)	≥ 98 %
Loss on drying (120 °C; 4h; Vacuum)	≤ 2.0 %		

catalogue number	packing specs	weight in pack	pack in box
908.04P.0051	glass bottle	50 g	6 pieces

tert-Butanol



- $C_4H_{10}O$
- CAS-No: 75-65-0
- EC-No: 200-889-7
- EC index No: 603-005-00-1
- M= 74.12 g/mol
- Vapour Pressure: 41 hPa (20°C)
- Specific density: 0.78 g/cm³ (20°C)
- Flash point: 11°C
- Solubility in H_2O soluble at 20°C
- pH value: neutral at 20°C
- Melting point: 24 - 25°C
- Bulk density: -
- Boiling point: 81 - 83°C (1013 hPa)
- Ignition temperature: 480°C
- Explosive limit: 2.3 - 8.0 %(V)
- Viscosity kinematic: -
- Flammable , Harmful
- H-STATEMENT/EUH: H225;319;332;335 / P210;240;305+351+338;403+233
- Test Type: LD50 Oral rat; LD50 Dermal rabbit
- Results: 2733 mg/kg ; > 2000 mg/kg
- HS-CODE: 2905 14 10 ➤ LGK: 3
- Disposal: 3 ➤ WGK: 1
- UN: 1120

908.036 *tert-Butanol* - *For analysis ACS, Reag. Ph Eur.*

Specification

Purity (GC)	≥ 99.5 %	Ba (Barium)	≤ 0.00001 %	Zn (Zinc)	≤ 0.00001 %
Identity (IR)	passes test	Ca (Calcium)	≤ 0.00005 %	Evaporation residue	≤ 0.001 %
Appearance	Clear	Cd (Cadmium)	≤ 0.000005 %	Water	≤ 0.1 %
Colour	≤ 10 Hazen	Co (Cobalt)	≤ 0.000002 %		
Acidity	≤ 0.0005 meq/g	Cr (Chromium)	≤ 0.000002 %		
Alkalinity	≤ 0.0002 meq/g	Cu (Copper)	≤ 0.000002 %		
Boiling range (81-83 °C)	≥ 95 % (v/v)	Fe (Iron)	≤ 0.00001 %		
Aldehydes and ketones (as formaldehyde)	≤ 0.01 %	Mg (Magnesium)	≤ 0.00001 %		
Melting point	24.0 - 25.0 °C	Mn (Manganese)	≤ 0.000002 %		
Al (Aluminium)	≤ 0.00005 %	Ni (Nickel)	≤ 0.000002 %		
B (Boron)	≤ 0.000002 %	Pb (Lead)	≤ 0.00001 %		
		Sn (Tin)	≤ 0.00001 %		

catalogue number	packing specs	volume in pack	pack in box
908.036.1001	glass bottle	1 l	6 pieces

tert-Butyl methyl ether



- $C_5H_{12}O$
- CAS-No: 1634-04-4
- EC-No: 216-653-1
- EC index No: 603-181-00-X
- M= 88.15 g/mol
- Vapour Pressure: 268 hPa (20°C)
- Specific density: 0.74 g/cm³ (20°C)
- Flash point: -30°C
- Solubility in H_2O 42 g/l at 20°C
- pH value: Not applicable
- Melting point: -108.6°C
- Bulk density: -
- Boiling point: 55.3°C (1013 hPa)
- Ignition temperature: 460°C
- Explosive limit: 1.5 - 8.5 %(V)
- Viscosity kinematic: -
- Flammable , Irritant
- H-STATEMENT/EUH: H225;315 / P210;240; 302+352;403+233
- Test Type: LD50 Oral rat
- Results: > 4000 mg/kg
- HS-CODE: 2909 19 90 ➤ LGK: 3
- Disposal: 1 ➤ WGK: 1
- UN: 2398

908.022 *tert-Butyl methyl ether* - *Extra pure*

Specification

Purity (GC)	≥ 99.0 %	Peroxide (as H_2O_2)	≤ 0.005 %		
Identity (IR)	passes test	Evaporation residue	≤ 0.005 %		
Free acid (as CH_3COOH)	≤ 0.002 %	Water	≤ 0.05 %		
Density (d 20°C/ 4°C)	0.740 - 0.742				

catalogue number	packing specs	volume in pack	pack in box
908.022.2501	glass bottle	2.5 l	4 pieces

908.027 *tert-Butyl methyl ether* - *For liquid chromatography*

Specification

Purity (GC)	≥ 99.8 %	Transmission (at 240 nm)	≥ 60 %	Filtered by 0.2 µm filter	
Appearance	Colorless, liquid	Transmission (at 250 nm)	≥ 80 %		
Identity (IR)	passes test	Transmission (at 255 nm)	≥ 85 %		
Evaporation residue	≤ 0.0002 %	Transmission (at 260 nm)	≥ 90 %		
Water	≤ 0.01 %	Transmission (at 280 nm)	≥ 98 %		
Acidity	≤ 0.0002 meq/g	Transmission (at 300 nm)	≥ 99 %		
Alkalinity	≤ 0.0002 meq/g	Transmission (at 400 nm)	≥ 99 %		
Transmission (at 210 nm)	≥ 10 %	Color (APHA)	≤ 10		
Transmission (at 220 nm)	≥ 40 %	Peroxides (as H_2O_2)	≤ 0.0005 %		

catalogue number	packing specs	volume in pack	pack in box
908.027.2501	glass bottle	2.5 l	4 pieces

Calcium chloride dihydrate



- $CaCl_2*2H_2O$
- CAS-No: 10035-04-8
- EC-No: 233-140-8
- EC index No: 017-013-00-2
- M= 147.01 g/mol
- Vapour Pressure: -
- Specific density: 1.85 g/cm³ (20°C)
- Flash point: not applicable
- Solubility in H_2O 1000 g/l (0°C)
- pH value: 4.5 - 8.5 (50 g/l, H_2O, 20°C)
- Melting point: 176°C
- Bulk density: 750 g/l
- Boiling point: -
- Ignition temperature: -
- Explosive limit: not applicable
- Viscosity kinematic: -
- Irrirant
- H-STATEMENT/EUH: H319 / P280; 305;351;338
- Test Type: LD50 Oral rat
- Results: 1,000 mg/kg
- HS-CODE: 2827 20 00
- LGK: 10 - 13 ➤ Disposal: 14
- WGK: 1 ➤ UN: -

909.022 *Calcium chloride dihydrate -* *Extra pure*

Specification

Assay	97.0 - 103 %	Identification (Test C)	Complies with the limits of the assay
Characters	A white, crystalline powder, hygroscopic	Acidity or alkalinity	Specified test
Appearance of solution	Clear	Sulphates	≤ 0.3 %
Solubility	Soluble in water and alcohol	Fe (Iron)	≤ 0.001 %
Identification (Test A)	Gives the reactions of chlorides	Magnesium and alkali metals	≤ 0.5 %
Identification (Test B)	Gives the reactions of calcium	Heavy metals	≤ 0.002 %

catalogue number	packing specs	weight in pack	pack in box
909.022.0500	plastic bottle	500 g	6 pieces
909.022.1000	plastic bottle	1 kg	6 pieces

909.026 *Calcium chloride dihydrate -* *ACS, Reag. Ph Eur*

Specification

Assay ($CaCl_2$ x $2H_2O$)	99.0 - 103.00 %	Ba (Barium)	≤ 0.003 %	Substances precipitated by ammonia (Al,Fe,PO_4)	passes test
Identity	passes test	Cd (cadmium)	≤ 0.0001 %	Hypochlorite (ClO)	passes test
Appearance	fine, white crys. powder	Cu (Copper)	≤ 0.0001 %		
Appearance of Solution	passes test	Fe (Iron)	≤ 0.0003 %		
Insoluble Matter	≤ 0.01 %	Pb (Lead)	≤ 0.0002 %		
Acidity (0.01 M NaOH/g)	≤ 0.20 ml	K (Potassium)	≤ 0.01 %		
Alkalinity (0.01 M HCl/g)	≤ 0.20 ml	Mg (Magnesium)	≤ 0.005 %		
pH-value (5 %)	4.5 - 8.5	Hg (Mercury)	≤ 0.0001 %		
Sulphate (SO_4)	≤ 0.005 %	Na (Sodium)	≤ 0.01 %		
Heavy Metals as (Pb)	≤ 0.0005 %	As (Arsenic)	≤ 0.0002 %		
Al (Aluminium)	≤ 0.00002 %	Mg- +Alkali Ions (SO_4)	≤ 0.5 %		

catalogue number	packing specs	weight in pack	pack in box
909.026.0250	plastic bottle	250 g	6 pieces
909.026.0500	plastic bottle	500 g	6 pieces
909.026.1000	plastic bottle	1 kg	6 pieces

Calcium nitrate tetrahydrate



- $CaN_2O_6*4H_2O$
- CAS-No: 13477-34-4
- EC-No: 233-332-1
- EC index No: -
- M= 236.15 g/mol
- Vapour Pressure: -
- Specific density: 1.82 g/cm³ (20°C)
- Flash point: not applicable
- Solubility in H_2O 2710 g/l (40°C)
- pH value: 5.0 - 7.0 (50 g/l, H^2O, 25°C)
- Melting point: 45°C
- Bulk density: 1000 kg/m³
- Boiling point: not applicable
- Ignition temperature: -
- Explosive limit: not applicable
- Viscosity kinematic: -
- Harmful, irritant
- H-STATEMENT/EUH: H272;319;302;318 / P280;305+351+338;313
- Test Type: LD50 Oral rat
- Results: 300-2000 mg/kg
- HS-CODE: 2834 29 80
- LGK: 5.1 B ➤ Disposal: 22
- WGK: 1 ➤ UN: 1454

909.036 *Calcium nitrate tetrahydrate -* *For analysis ACS*

Specification

Assay (complexometric)	99 - 103 %	Ba (Barium)	≤ 0.005 %
Insoluble matter	≤ 0.005 %	Cu (Copper)	≤ 0.0002 %
pH-value (5 %, H_2O)	5.0 - 7.0	Fe (Iron)	≤ 0.0005 %
Chloride (Cl)	≤ 0.005 %	K (Potassium)	≤ 0.005 %
Nitrite (NO_2)	≤ 0.001 %	Mg (Magnesium)	≤ 0.01 %
Sulphate (SO_4)	≤ 0.002 %	Na (Sodium)	≤ 0.01 %
Ammonium (NH_4)	≤ 0.005 %	Sr (Strontium)	≤ 0.01 %
Heavy metals (as Pb)	≤ 0.0005 %		

catalogue number	packing specs	weight in pack	pack in box
909.036.0500	plastic bottle	500 g	6 pieces
909.036.1000	plastic bottle	1 kg	6 pieces

Carbol fuchsin powder



- C.I NO: -
- -
- CAS-No: 4197-24-4
- EC-No: -
- EC index No: -
- M= -
- Solubility in H_2O Very soluble
- Colour: Black
- Odour: Odorless
- pH value: Not applicable
- Melting point: -
- Toxic
- H-STATEMENT/EUH: H314;301;311;331;371;373 / P280;271;260;264;270;302+352;309+311;301+330+331;305+351+338;304+340;303+361+353;363;314;361;403+233;405;501
- HS-CODE: 3822 00 19
- LGK: - ➤ UN: 2928

909.D01 *Carbol fuchsin powder* - *For microscopy*

Specification

Appearance (color)	Black powder	Absorptivity (A 1 %1cm in 50 % Ethanol, at λ max)	≥ 160
Absorption maximum (40 % Ethanol) λ max	549 - 552 nm		

catalogue number	packing specs	weight in pack	pack in box
909.D01.0010	plastic bottle	10 g	6 pieces
909.D01.0025	plastic bottle	25 g	6 pieces
909.D01.0050	plastic bottle	50 g	6 pieces
909.D01.0100	plastic bottle	100 g	6 pieces

Carmine

- C.I NO: 75470
- $C_{44}H_{37}O_{27}AlCa*3H_2O$
- CAS-No: 1390-65-4
- EC-No: 215-724-4
- EC index No: -
- M= 1118.88 g/mol
- Negligible
- Colour: Pink to red
- Odour: Odorless
- pH value: Not applicable
- Melting point: -
- -
- H-STATEMENT/EUH: -
- HS-CODE: 3203.0090
- LGK: 10 - 13

909.D02 *Carmine* - *(C.I.75470) for microscopy*

Specification

Appearance	Dark red coloured powder	A1 %, 1cm, λ_2 max	≥ 100
Absorption maxima 1 in DMSO	563 - 571 nm	Ratio λ max. P±15nm (at 528 nm)	1.00 - 1.10
Absorption maxima 2 in DMSO	525 - 533 nm	Loss on drying (at 110°C)	≤ 15 %
A1 %, 1cm, λ_1 max	≥ 70		

catalogue number	packing specs	weight in pack	pack in box
909.D02.0010	plastic bottle	10 g	6 pieces
909.D02.0025	plastic bottle	25 g	6 pieces
909.D02.0050	plastic bottle	50 g	6 pieces
909.D02.0100	plastic bottle	100 g	6 pieces

Chlorobenzene



- C_6H_5Cl
- CAS-No: 108-90-7
- EC-No: 203-628-5
- EC index No: 602-033-00-1
- M= 112.56 g/mol
- Vapour Pressure: 12 hPa (20°C)
- Specific density: 1.11 g/cm³ (20°C)
- Flash point: 27°C
- Solubility in H_2O 0.207 g/l at 20°C
- pH value: neutral at 20°C
- Melting point: -45°C
- Bulk density: -
- Boiling point: 132°C (1013 hPa)
- Ignition temperature: 590°C
- Explosive limit: 1.3 - 11 %(V)
- Viscosity kinematic: -
- Harmful, Dangerous for the environment
- H-STATEMENT/EUH: H226;315;332;411 / P210;273;302+352
- Test Type: LD50 Oral rat
- Results: 2000 - 4000 mg/kg
- HS-CODE: 2903 91 00 ➤ LGK: 3
- Disposal: 3 ➤ WGK: 2
- UN: 1134

910.021 *Chlorobenzene* - *For synthesis*

Specification

Assay (GC, area %)	≥ 99.0 % (a/a)	Identity	passes test
Density (20 °C)	1.105 - 1.108		

catalogue number	packing specs	volume in pack	pack in box
910.021.2501	glass bottle	2.5 l	4 pieces

Chloroform



- $CHCl_3$
- CAS-No: 67-66-3
- EC-No: 200-663-8
- EC index No: 602-006-00-4
- M= 119.38 g/mol
- Vapour Pressure: 211 hPa (20°C)
- Specific density: 1.47 g/cm³ (20°C)
- Flash point: Not applicable
- Solubility in H_2O 8 g/l at 20°C
- pH value: -
- Melting point: -63°C
- Bulk density: -
- Boiling point: 61°C (1013 hPa)
- Ignition temperature: 982°C
- Explosive limit: Not applicable
- Viscosity kinematic: -
- Harmful, Irritant
- H-STATEMENT/EUH: H302;315;319;331; 351; 361d;372 / P302+352;304+340;305+ 351+ 338;308+310
- Test Type: LD50 Oral rat; LD50 Dermal rabbit
- Results: 695 mg/kg ; > 3980 mg/kg
- HS-CODE: 2903 13 00 ➤ LGK: 3
- Disposal: 3 ➤ WGK: 3 ➤ UN: 1888

910.033 *Chloroform* - *BP*

Specification

Purity (GC)	99.0 - 99.4 % (w / w)	Bromochloromethane (GC)	≤ 0.01 %
Identity (IR)	passes test	1,2-Dichloroethane (GC)	≤ 0.05 %
Acidity or alkalinity	passes test	Dichloromethane (GC)	≤ 0.01 %
Density (d 20°C/ 4°C)	1.474 - 1.479	Carbon tetrachloride (GC)	≤ 0.01 %
Density (d 20°C/20°C)	1.479 - 1.482	1,1,2-Trichloroethane (GC)	≤ 0.01 %
Boiling range (60-62°C)	≥ 95 % (v / v)	Aldehydes	passes test
Chloride (Cl)	passes test	Foreign chlorine compounds	passes test
Free chlorine (as Cl)	passes test	Matter discoloured by H_2SO_4	≤ 10 Hazen
Ethanol (GC)	1.0 - 2.0 % (v / v)	Evaporation residue	≤ 0.0010 %
Related substances (GC)	≤ 1.0 % (v / v)	Water	≤ 0.10 %

catalogue number	packing specs	volume in pack	pack in box
910.033.2501	glass bottle	2.5 l	4 pieces

910.037 *Chloroform* - *For liquid chromatography, stabilized Ethanol*

Specification

Purity (GC)	≥ 99.80 %	UV Absorbance 245 nm	≤ 1.00
Appearance (Color)	Colorless	Stabilizer (ethanol)	0.5 - 1.0 %
Appearance (Form)	Liquid	Water (by Karl Fischer)	≤ 0.01 %
Infrared Spectrum	passes test	Residue on Evaporation	≤ 0.0003 %
UV Absorbance 400 nm	≤ 0.01	Color Test APHA	≤ 10
UV Absorbance 290 nm	≤ 0.01	Acetone, Aldehyde	passes test
UV Absorbance 270 nm	≤ 0.02	Substances Darkened (by H_2SO_4)	passes test
UV Absorbance 260 nm	≤ 0.15	Free Chlorine	passes test
UV Absorbance 255 nm	≤ 0.15	Acid and Chloride	passes test

Lead (Pb)	≤ 0.000005 %
Refractive index	n20/D 1.445 (lit.)

catalogue number	packing specs	volume in pack	pack in box
910.037.2501	glass bottle	2.5 l	4 pieces

910.054 *Chloroform* - *For gas chromatography ECD and FID (Amylene stabilized)*

Specification

Appearance	Clear colorless liquid	GC/ECD(retention range 1,2,4- trichlorobenzene to decachlorobiphenyl individual signals (lindane standard))	≤ 3 pg/ml
Assay (GC)	≥ 99.8 %		
Water	≤ 0.05 %		
Non volatile matter	≤ 0.0005 %		
Color	≤ 10 HU		
		GC/FID (retention range n-undecane n-tetracontane individual signals (ntetradecane standard))	≤ 3 ng/ml

catalogue number	packing specs	volume in pack	pack in box
910.054.2501	glass bottle	2.5 l	4 pieces

910.057 *Chloroform* - *For liquid chromatography, stabilized Amylene*

Specification

Purity (GC)	≥ 99.8 %	Transmission (at 255 nm)	≥ 70 %
Identity (IR)	passes test	Transmission (at 260 nm)	≥ 85 %
Evaporation residue	≤ 0.0005 %	Transmission (at 300 nm)	≥ 98 %
Water	≤ 0.01 %	Amylenes as stabilizer	0.003 % - 0.006 %
Acidity	≤ 0.0002 meq/g	The purpose is only for high pressure liquid chromatography.	
Alkalinity	≤ 0.0002 meq/g		

Filtered by 0.2 µm filter.

catalogue number	packing specs	volume in pack	pack in box
910.057.2501	glass bottle	2.5 l	4 pieces

Citric acid monohydrate



- $C_6H_8O_7*H_2O$
- CAS-No: 5949-29-1
- EC-No: 201-069-1
- EC index No: -
- M= 210.14 g/mol
- Vapour Pressure: < 0.1 hPa at 20°C
- Specific density: 1.54 g/cm³ (20°C)
- Flash point: not applicable
- Solubility in H_2O 880 g/l (20°C)
- pH value: 1.85 (5 % , 25°C)
- Melting point: 135 - 152°C
- Bulk density: 800 - 1000 kg/m³
- Boiling point: (decomposition)
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- Irrirant
- H-STATEMENT/EUH: H319 / P280; 305+351+338
- Test Type: LD50 Oral rat ; LD50 Dermal rat
- Results: 3000 mg/kg ; > 2000 mg/kg
- HS-CODE: 2918 14 00
- LGK: 10 - 13 ➤ Disposal: 3
- WGK: 1 ➤ UN: -

910.046 *Citric acid monohydrate* - *For analysis ACS,ISO,Reag. Ph Eur*

Specification

Assay	99.7 - 100.3 %
Identification	passes test
Odour	odourless
Appearance	Colorless white crystal
Appearance of Solution	Passes test
Chloride (Cl)	≤ 0.0005 %
Sulphate	≤ 0.01 %
Heavy Metals (as Pb)	≤ 0.0005 %
As (Arsenic)	≤ 0.0001 %
Hg (Mercury)	≤ 0.00005 %
Ca (Calcium)	≤ 0.003 %
Cu (Copper)	≤ 0.00001 %
Fe (Iron)	≤ 0.0003 %
Pb (Lead)	≤ 0.00005 %
Oxalates (as $C_2H_2O_4$)	≤ 0.01 %
Readily carbonisable substance	passes test
Sulfated ash	≤ 0.05 %
Water	7.5 - 8.8 %
Particles > 1.25 mm	≤ 5 %
Particles < 0.20 mm	≤ 10 %

catalogue number	packing specs	weight in pack	pack in box
910.046.0500	plastic bottle	500 g	6 pieces
910.046.1000	plastic bottle	1 kg	6 pieces
910.046.5000	plastic bottle	5 kg	4 pieces

Cobalt (II) chloride hexahydrate



- Cl_2Co*6H_2O
- CAS-No: 7791-13-1
- EC-No: 231-589-4
- EC index No: 027-004-00-5
- M= 237.90 g/mol
- Vapour Pressure: -
- Specific density: 1.92 g/cm³ (25°C)
- Flash point: -
- Solubility in H_2O 760 g/l (0°C)
- pH value: 4.9 (50 g/l, H_2O, 25°C)
- Melting point: 86°C
- Bulk density: 1250 kg/m³
- Boiling point: -
- Ignition temperature: -
- Explosive limit: not applicable
- Viscosity kinematic: -
- Toxic, dangerous for the environment
- H-STATEMENT/EUH: H350i;360F;302;317; 334;341;410 / P201;273;280;302+352; 304+340;342+311
- Test Type: LD50 Oral rat; LD50 Dermal rat
- Results: 766 mg/kg ; > 2000 mg/kg
- HS-CODE: 2827 39 30 ➤ LGK: 6.1 D
- Disposal: 15 ➤ WGK: 2 ➤ UN: 3077

911.016 *Cobalt (II) chloride hexahydrate* - *For analysis ACS,Reag. Ph Eur*

Specification

Assay (complexometric)	99 - 102 %
Identity	passes test
Insoluble matter	≤ 0.01 %
Nitrate (NO_3)	≤ 0.01 %
Sulphate (SO_4)	≤ 0.005 %
Ca (Calcium)	≤ 0.005 %
Cu (Copper)	≤ 0.0005 %
Fe (Iron)	≤ 0.005 %
K (Potassium)	≤ 0.005 %
Mg (Magnesium)	≤ 0.002 %
Mn (Manganese)	≤ 0.001 %
Na (Sodium)	≤ 0.01 %
Ni (Nickel)	≤ 0.05 %
Pb (Lead)	≤ 0.0005 %
Zn (Zinc)	≤ 0.002 %

catalogue number	packing specs	weight in pack	pack in box
911.016.0100	plastic bottle	100 g	6 pieces
911.016.0250	plastic bottle	250 g	6 pieces

Congo red indicator



- C.I NO: 22120
- $C_{32}H_{22}N_6Na_2O_6S_2$
- CAS-No: 573-58-0
- EC-No: 209-358-4
- EC index No: 611-027-00-8
- M= 696.68 g/mol
- Soluble in water
- Colour: Brownish red powder
- Odour: Odorless
- pH value: -
- Melting point: -
- Toxic
- H-STATEMENT/EUH: H350;361d / P201; 281;308+313;405;501
- HS-CODE: 3204.1400
- LGK: 6.1B

911.D01 *Congo red indicator* - *(C.I. 22120) for microscopy*

Specification

Appearance	brownish red powder
Appearance of solution (1.0 g/l; water)	almost clear to slightly turbid, red solution
Transition range at pH 3.0 - pH 5.2	violet to orange red
Loss on drying (110°C)	≤ 5 %
Sensitivity test	passes test

catalogue number	packing specs	weight in pack	pack in box
911.D01.0010	plastic bottle	10 g	6 pieces
911.D01.0025	plastic bottle	25 g	6 pieces
911.D01.0050	plastic bottle	50 g	6 pieces
911.D01.0100	plastic bottle	100 g	6 pieces

lab chemicals & reagents

Coomassie brilliant blue G 250

- C.I NO: 42655
- $C_{47}H_{48}N_3NaO_7S_2$
- CAS-No: 6104-58-1
- EC-No: 228-058-4
- EC index No: -
- M= 854.04 g/mol
- Solubility in H_2O -
- Colour: Dark brown powder
- Odour: -
- pH value: Not applicable
- Melting point: -
- -
- H-STATEMENT/EUH: -
- HS-CODE: 3204.1200
- LGK: 10-13

911.D02 *Coomassie brilliant blue G 250 - (C.I. 42655) for electrophoresis*

Specification

Appearance	Dark brown colored powder
Identity (UV/VIS-Spectrum)	passes test
Absorption maxima λ max (buffer pH 7.0)	577 - 584 nm
Spec. Absorptivity A 1 %/1cm (λ max; 0.01 %; buffer pH 7.0)	520 - 570
TLC-Test	passes test
Loss on drying	≤ 8 %
Suitability for electrophoresis	passes test

catalogue number	packing specs	weight in pack	pack in box
911.D02.0010	plastic bottle	10 g	6 pieces
911.D02.0025	plastic bottle	25 g	6 pieces
911.D02.0050	plastic bottle	50 g	6 pieces
911.D02.0100	plastic bottle	100 g	6 pieces

Coomassie brilliant blue R 250

- C.I NO: 42660
- $C_{45}H_{44}N_3NaO_7S_2$
- CAS-No: 6104-59-2
- EC-No: 228-060-5
- EC index No: -
- M= 825.99 g/mol
- Solubility in H_2O Soluble in water
- Colour: Brownish purple
- Odour: -
- pH value: Not applicable
- Melting point: -
- -
- H-STATEMENT/EUH: -
- HS-CODE: 3204.1200
- LGK: 10-13

911.D03 *Coomassie brilliant blue R 250 - (C.I. 42660) for gel electrophoresis*

Specification

Appearance	Brownish purple powder
Identity (UV/VIS-Spectrum)	passes test
Absorption maxima λ max. (buffer pH 7.0)	554 - 563 nm
Spec. Absorptivity A1 %/1cm (λ max; 0.025 %; buffer pH 7.0)	≥ 300
Loss on drying	≤ 5 %
Suitability for electrophoresis	passes test

catalogue number	packing specs	weight in pack	pack in box
911.D03.0010	plastic bottle	10 g	6 pieces
911.D03.0025	plastic bottle	25 g	6 pieces
911.D03.0050	plastic bottle	50 g	6 pieces
911.D03.0100	plastic bottle	100 g	6 pieces

Copper (II) sulfate pentahydrate



- CuO_4S*5H_2O
- CAS-No: 7758-99-8
- EC-No: 231-847-6
- EC index No: 029-004-00-0
- M= 249.68 g/mol
- Vapour Pressure: 9.7 hPa (25°C)
- Specific density: 2.284 g/cm³ (20°C)
- Flash point: -
- Solubility in H_2O 317 g/l (20°C)
- pH value: 3.5 - 4.5 (50 g/l, H_2O, 20°C)
- Melting point: 110°C
- Bulk density: -
- Boiling point: not applicable
- Ignition temperature: -
- Explosive limit: not applicable
- Viscosity kinematic: -
- Harmful , dangerous for the environment
- H-STATEMENT/EUH: H302;315;319;410 / P273;302+352;305+351+338
- Test Type: LD50 Oral rat; LD 50 dermal rat
- Results: 960 mg/kg; > 2000 mg/kg
- HS-CODE: 2833 25 00
- LGK: 10 - 13 ➤ Disposal: 15
- WGK: 3 ➤ UN: 3077

911.022 *Copper (II) sulfate pentahydrate - Extra pure*

Specification

Assay	≥ 98.0 %
Fe (Iron)	≤ 0.01 %
Free acid (H_2SO_4)	≤ 0.1 %
Contents of insoluble residue	≤ 0.2 %

catalogue number	packing specs	weight in pack	pack in box
911.022.0500	plastic bottle	500 g	6 pieces
911.022.1000	plastic bottle	1 kg	6 pieces

911.026 *Copper (II) sulfate pentahydrate - For analysis ACS,ISO,Reag. Ph Eur*

Specification

Assay (iodometric)	99.0 - 100.5 %
Appearance	Blue crystalline powder
Identification	passes test
Insoluble matter	≤ 0.005 %
Chloride (Cl)	≤ 0.0005 %
Total nitrogen (N)	≤ 0.001 %
Ca (Calcium)	≤ 0.005 %
Fe (Iron)	≤ 0.003 %
K (Potassium)	≤ 0.001 %
Na (Sodium)	≤ 0.005 %
Ni (Nickel)	≤ 0.005 %
Pb (Lead)	≤ 0.005 %
Zn (Zinc)	≤ 0.03 %

catalogue number	packing specs	weight in pack	pack in box
911.026.0250	plastic bottle	250 g	6 pieces
911.026.0500	plastic bottle	500 g	6 pieces
911.026.1000	plastic bottle	1 kg	6 pieces

Cresyl violet (Acetate)



- C.I NO: -
- $C_{18}H_{15}N_3O_3$
- CAS-No: 10510-54-0
- EC-No: 234-043-3
- EC index No: -
- M= 321.33 g/mol
- Solubility in H_2O -
- Colour: Dark green
- Odour: Odorless
- pH value: Not applicable
- Melting point: 140 - 143°C
- -
- H-STATEMENT/EUH: H315;319;335 / P261;264;271;280;302+352;304+340
- HS-CODE: 3204.1900
- LGK: 10-13

912.D01 *Cresyl violet (Acetate) - For microscopy*

Specification

Appearance	Dark green powder	Spec. Absorptivity A 1 %/1cm	
Dye content (spectrophotometrically)	≥ 70 %	(λ max; 0.0005 %; ethanol 50 %)	980 - 1400
Identity (UV/VIS-Spectrum)	passes test	TLC-Test	passes test
Absorption maximum λ max		Loss on drying (50°C / < 1 hPa)	≤ 25 %
(ethanol 50 %)	596 - 599 nm	Suitability for microscopy	passes test

catalogue number	packing specs	weight in pack	pack in box
912.D01.0010	plastic bottle	10 g	6 pieces
912.D01.0025	plastic bottle	25 g	6 pieces
912.D01.0050	plastic bottle	50 g	6 pieces
912.D01.0100	plastic bottle	100 g	6 pieces

Cyclohexane



- C_6H_{12}
- CAS-No: 110-82-7
- EC-No: 203-806-2
- EC index No: 601-017-00-1
- M= 84.16 g/mol
- Vapour Pressure: 124 hPa (24°C)
- Specific density: 0.78 g/cm³ (20°C)
- Flash point: -18°C
- Solubility in H_2O 0.05 g/l at 20°C
- pH value: -
- Melting point: 6.5°C
- Bulk density: -
- Boiling point: 81°C (1013 hPa)
- Ignition temperature: 260°C
- Explosive limit: 1.2 - 8.3 %(V)
- Viscosity kinematic: 1.26 mm²/s (20°C)
- Flammable, Harmful, Dangerous for the environment
- H-STATEMENT/EUH: H225;304;315;336;410 / P210;240;273;301+330+331;302+352;403+233
- Test Type: LD50 Rat ; LD50 Rabbit
- Results: > 5000 mg/kg ; > 2000 mg/kg
- HS-CODE: 2902 11 00 ➤ LGK: 3
- Disposal: 1 ➤ WGK: 2 ➤ UN: 1145

912.012 *Cyclohexane - Extra pure*

Specification

Purity (GC)	≥ 99.8 %	Infrared spectrum	passes test
Appearance	Colourless, liquid	Residue on evaporation	≤ 0.005 %

catalogue number	packing specs	volume in pack	pack in box
912.012.2501	glass / plastic	2.5 l	4 pieces

912.017 *Cyclohexane - For liquid chromatography*

Specification

Purity (GC)	≥ 99.9 %	Alkalinity	≤ 0.0002 meq/g
Identity (IR)	passes test	Transmission (at 230 nm)	≥ 75 %
Evaporation residue	≤ 0.0002 %	Transmission (at 240 nm)	≥ 90 %
Water	≤ 0.01 %	Transmission (from 260 nm)	≥ 99 %
Acidity	≤ 0.0002 meq/g	Filtered by 0.2 µm filter	

catalogue number	packing specs	volume in pack	pack in box
912.017.2501	glass bottle	2.5 l	4 pieces

Dichloromethane



- CH_2Cl_2
- CAS-No: 75-09-2
- EC-No: 200-838-9
- EC index No: 602-004-00-3
- M= 84.93 g/mol
- Vapour Pressure: 475 hPa (20°C)
- Specific density: 1.33 g/cm³ (20°C)
- Flash point: Not applicable
- Solubility in H_2O 20 g/l at 20°C
- pH value: neutral at 20°C
- Melting point: -95°C
- Bulk density: -
- Boiling point: 40°C (1013 hPa)
- Ignition temperature: 605°C
- Explosive limit: 13 - 22 %(V)
- Viscosity kinematic: -
- Harmful
- H-STATEMENT/EUH: H315;319;336;351 / P302+352;305+351+338;308+313
- Test Type: LD50 Oral rat
- Results: 1600 mg/kg
- HS-CODE: 2903 12 00 ➤ LGK: 6.1D
- Disposal: 2 ➤ WGK: 2
- UN: 1593

914.013 *Dichloromethane* - *Ph. Eur., NF*

Specification

Purity (GC)	≥ 99.0 %	Specific gravity (at 20 °C)	1.320 - 1.330	Iron (Fe)	≤ 0.0001 %
Stabilizer (Amylene)	10 - 60 ppm	Refractive index (N20/d)	1.423 - 1.425	Lead (Pb)	≤ 0.0001 %
Appearance	colorless, liquid	Water (Coulometr.)	≤ 0.02 %	Benzene Content (C_6H_6)	≤ 0.0002 %
Free Acid (as HCl)	≤ 0.001 %	Evaporation residue	≤ 0.002 %		
Remarks on GC (Ethanol)	≤ 2.0 vol-%	Infrared Spectrum	passes test		
Remarks on GC (Methanol)	≤ 0.02 vol-%	Free Chlorine	≤ 0.0001 %		
Remarks on GC (Tetrachlorocarbon)	≤ 0.001 vol-%	Residual Solvents	passes test		
Remarks on GC ($CHCl_3$)	≤ 0.005 vol-%	Heavy Metals (as Pb)	≤ 0.0001 %		
Ethanol, 2-Methylbut-2-ene and Volatile IMP	Passes test	Chloride (Cl)	≤ 0.0003 %		
Specific gravity (at 25°C)	1.318 - 1.322	Formaldehyde (CH_2O)	≤ 0.0001 %		
		Copper (Cu)	≤ 0.0001 %		

catalogue number	packing specs	volume in pack	pack in box
914.013.2501	glass bottle	2.5 l	4 pieces

914.014 *Dichloromethane* - *For gas chromatography ECD and FID*

Specification

Appearance	Clear colorless liquid	GC/ECD (retention range 1,2,4-trichlorobenzene to decachlorobiphenyl individual signals (lindane standard)	≤ 3 pg/ml
Assay (GC)	≥ 99.8 %		
Color	≤ 10 HU		
Water	≤ 0.02 %		
Non volatile matter	≤ 0.0005 %	GC/FID (retention range n-undecane - n-tetracontane individual signals (n-tetradecane standard))	≤ 3 ng/ml

catalogue number	packing specs	volume in pack	pack in box
914.014.2501	glass bottle	2.5 l	4 pieces

914.017 *Dichloromethane* - *For liquid chromatography, stabilized amylene*

Specification

Purity (GC)	≥ 99.9 %	Transmission (at 245 nm)	≥ 90 %
Identity (IR)	passes test	Transmission (at 260 nm)	≥ 99 %
Acidity	≤ 0.0002 meq/g	Evaporation residue	≤ 0.0005 %
Alkalinity	≤ 0.0002 meq/g	Water	≤ 0.01 %
Transmission (at 240 nm)	≥ 70 %	Filtered by 0.2 µm filter	

catalogue number	packing specs	volume in pack	pack in box
914.017.2501	glass bottle	2.5 l	4 pieces

N,N-Dimethylformamide



- C_3H_7NO
- CAS-No: 68-12-2
- EC-No: 200-679-5
- EC index No: 616-001-00-X
- M= 73.09 g/mol
- Vapour Pressure: 3.77 hPa (20°C)
- Specific density: 0.94 g/cm³ (20°C)
- Flash point: 58°C
- Solubility in H_2O 1000 g/l at 20°C
- pH value: 7 (200 g/l, H_2O, 20°C)
- Melting point: -61°C
- Bulk density: -
- Boiling point: 153°C (1013 hPa)
- Ignition temperature: 410°C
- Explosive limit: 2.2 - 16 %(V)
- Viscosity kinematic: -
- Harmful, Irritant
- H-STATEMENT/EUH: H360D;226;312+332;319 / P201;210;302+352;305+351+338;308+313
- Test Type: LD50 Oral rat; LD50 Dermal rabbit
- Results: 3010 mg/kg ; 1500 mg/kg
- HS-CODE: 2924 19 00 ➤ LGK: 3
- Disposal: 3 ➤ WGK: 2
- UN: 2265

914.042 *N,N-Dimethylformamide* - *Extra pure*

Specification

Purity (GC)	≥ 99 %	Water	≤ 0.1 %
Appearance	Colorless liquid	Acidity (HCOOH)	≤ 0.009 %
Infrared Spectrum	Conforms to structure		

catalogue number	packing specs	volume in pack	pack in box
914.042.2500	glass bottle	2.5 l	4 pieces

914.044 *N,N-Dimethylformamide* - *For gas chromatography ECD and FID*

Specification

Appearance	Clear liquid	GC/ECD(retention range 1,2,4-trichlorobenzene to decachlorobiphenyl individual signals (lindane standard))	≤ 3 pg/ml
Assay (GC)	≥ 99.8 %		
Color	≤ 10 HU		
Water	≤ 0.05 %		
Non volatile matter	≤ 0.0005 %	GC/FID (retention range n-undecane - n -tetracontane individual signals (n-tetradecane standard)	≤ 3 ng/ml

catalogue number	packing specs	volume in pack	pack in box
914.044.2501	glass bottle	2.5 l	4 pieces

Diethyl ether



- $(CH_3CH_2)_2O$
- CAS-No: 60-29-7
- EC-No: 200-467-2
- EC index No: -
- M= 74.12 g/mol
- Vapour Pressure: 587 hPa at 20 °C
- Specific density: 0.71 g/cm³ at 20 °C
- Flash point: -40 °C
- Solubility in H_2O 69 g/l at 20 °C
- pH value: -
- Melting point: -116°C
- Bulk density: -
- Boiling point: 34.6°C
- Ignition temperature: 180°C
- Explosive limit: 1.7 - 36 %(V)
- Viscosity kinematic: -
- Flammable
- H-STATEMENT/EUH: H224;302;336; EUH019;066 / P210;240;403+233
- Test Type: LD50 Oral rat
- Results: 1215 mg/kg
- HS-CODE: 2909 11 00 ➤ LGK: 3
- Disposal: 1 ➤ WGK: 1
- UN: 1155

914.023 *Diethyl ether* - *BP, Ph. Eur.*

Specification

Purity (GC area %)	99.5 - 100 %	Residual solvents	passes test
Appearance	Colorless, liquid	Free acid (as CH_3COOH)	≤ 0.002 %
Identity	passes test	Acidity	passes test
Peroxides (as H_2O_2)	≤ 0.0002 %	Water (coulometr.)	≤ 0.2 %
Aldehydes	passes test	Residue (Evaporation)	≤ 0.002 %

catalogue number	packing specs	volume in pack	pack in box
914.023.5002	alum. bottle	5 l	4 pieces

Dimethyl sulfoxide

- C_2H_6OS
- CAS-No: 67-68-5
- EC-No: 200-664-3
- EC index No: -
- M= 78.13 g/mol
- Vapour Pressure: 0.6 hPa (20°C)
- Specific density: 1.10 g/cm³ (20°C)
- Flash point: 87°C
- Solubility in H_2O 1000 g/l at 20°C
- pH value: -
- Melting point: 18.5°C
- Bulk density: -
- Boiling point: 189°C (1013 hPa)
- Ignition temperature: 300 - 302°C
- Explosive limit: 1.8 - 63.0 %(V)
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 Oral rat; LD50 Dermal rat
- Results: 28300 mg/kg ; 40000 mg/kg
- HS-CODE: 2930 90 98
- LGK: 10-13
- Disposal: 1 ➤ WGK: 2
- UN: -

914.034 *Dimethyl sulfoxide* - *For gas chromatography ECD and FID*

Specification

Appearance	Clear liquid
Assay (GC)	≥ 99.8 %
Color	≤ 10 HU
Water	≤ 0.05 %
GC/ECD(retention range 1,2,4- trichlorobenzene to decachlorobiphenyl individual signals (lindane standard))	≤ 3 pg/ml
GC/FID (retention range n-undecane - n-tetracontane individual signals (n-tetradecane standard)	≤ 3 ng/ml

catalogue number	packing specs	volume in pack	pack in box
914.034.2501	glass bottle	2.5 l	4 pieces

914.036 *Dimethyl sulfoxide* - *For analysis ACS*

Specification

Purity (GC)	≥ 99.9 %	Copper (Cu)	≤ 0.0001 %
Identity (IR)	passes test	Fe (Iron)	≤ 0.0001 %
Appearance	Clear	Lead (Pb)	≤ 0.0001 %
Colour	≤ 10 Hazen	Related substances (GC)	passes test
Titrable acid	≥ 0.0002 meq/g	Readily carbonizable substances	passes test
Refractive index (n 20/D)	1.478 - 1.479	Evaporation residue	≤ 0.001 %
Absorption	passes test	Water	≤ 0.1 %
Heavy metals (as Pb)	≤ 0.0001 %		

catalogue number	packing specs	volume in pack	pack in box
914.036.2501	glass bottle	2.5 l	4 pieces

lab chemicals & reagents

Dodecane-1-sulfonic acid sodium salt

- $C_{12}H_{25}NO_3S$
- CAS-No: 2386-53-0
- EC-No: 219-200-6
- EC index No: -
- M= 272.37 g/mol
- Vapour Pressure: -
- Specific density: -
- Flash point: -
- Solubility in H_2O -
- pH value: 5.5 - 7.5 (100 g/l, H_2O, 20°C)
- Melting point: > 300°C
- Bulk density: 330 kg/m³
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: -
- Results: -
- HS-CODE: 2904 10 00
- LGK: 10-13
- Disposal: 3
- WGK: - ➤ UN: -

915.01P *Dodecane-1-sulfonic acid sodium salt -* *For ion pair chromatography*

Specification

Assay (alkalimetric, calculated on dried substance)	≥ 99.0 %	UV-transmission (0.005 mol/l; 1 cm; Water) (at 220 nm)	≥ 90 %		
Identity (IR-spectrum)	passes test	UV-transmission (0.005 mol/l; 1 cm; Water) (at 250 nm)	≥ 98 %		
pH (100 g/l, water)	5.5 - 7.5	Loss on drying (120 °C; 4h; Vacuum)	≤ 2.0 %		
UV-transmission (0.005 mol/l; 1 cm; Water) (at 200 nm)	≥ 70 %				

catalogue number	packing specs	weight in pack	pack in box
915.01P.0050	plastic bottle	50 g	6 pieces
915.01P.0100	plastic bottle	100 g	6 pieces

Dodecyl sulfate sodium salt

- $C_{12}H_{25}NaO_4S$
- CAS-No: 151-21-3
- EC-No: 205-788-1
- EC index No: -
- M= 288.37 g/mol
- Vapour Pressure: -
- Specific density: 1.1 g/cm³ (20°C)
- Flash point: -
- Solubility in H_2O 150 g/l at 20°C
- pH value: 6 - 9 (10 g/l, H^2O, 20°C)
- Melting point: 204 - 207°C
- Bulk density: 490 - 560 kg/m³
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- Harmful
- H-STATEMENT/EUH: H302;315;318;335;412 / P273;280;302+352;305+351+338;313
- Test Type: LD50 Oral rat; LD50 Dermal rabbit
- Results: 1427 mg/kg ; > 2000 mg/kg
- HS-CODE: 2920 90 10
- LGK: 10-13 ➤ Disposal: 2
- WGK: - ➤ UN: -

915.02P *Dodecyl sulfate sodium salt -* *For ion pair chromatrography*

Specification

Assay (two-phase titration)	≥ 99.0 %	Chloride (Cl)	≤ 0.01 %		
Identity (IR-spectrum)	passes test	Phosphate (PO_4)	≤ 0.0001 %		
Absorbance A (220-350nm; 3 %; 1cm; water)	≤ 0.1	Heavy metals (as Pb)	≤ 0.0005 %		
		Water (according to Karl Fischer)	≤ 1 %		

catalogue number	packing specs	weight in pack	pack in box
915.02P.0051	glass bottle	50 gr	6 pieces
915.02P.0101	glass bottle	100 gr	6 pieces

Eosin alcohol soluble

- C.I NO: 45386
- $C_{22}H_{11}Br_4KO_5$
- CAS-No: 6359-05-3
- EC-No: 228-793-0
- EC index No: -
- M= 714.03 g/mol

- Solubility in H_2O Freely soluble
- Colour: Black
- Odour: -
- pH value: Not applicable
- Melting point: 275°C
- -

- H-STATEMENT/EUH: -
- HS-CODE: 3204.9000
- LGK: -

919.D01 *Eosin alcohol soluble* - *For microscopical staining*

Specification

Appearance	Brown to dark brown (Red), powder	Absorption maxima	524 - 527 nm

catalogue number	packing specs	weight in pack	pack in box
919.D01.0010	plastic bottle	10 g	6 pieces
919.D01.0025	plastic bottle	25 g	6 pieces
919.D01.0050	plastic bottle	50 g	6 pieces
919.D01.0100	plastic bottle	100 g	6 pieces

Eosin Blue



- C.I NO: 45400
- $C_{20}H_6Br_2N_2Na_2O_9$
- CAS-No: 548-24-3
- EC-No: 208-943-1
- EC index No: -
- M= 624.06 g/mol

- Solubility in H_2O -
- Colour: Black
- Odour: -
- pH value: Not applicable
- Melting point: -
- -

- H-STATEMENT/EUH: H318 / P280;305+351+338;310
- HS-CODE: 3204.1200
- LGK: 10-13

919.D02 *Eosin Blue* - *(C.I.45400) for microscopy*

Specification

Appearance	Brown to dark green powder		Loss on drying (110°C)		≤ 8 %
Dye content (by gravimetric)		≥ 85 %	Suitability for microscopy		passes test
Absorption maximum in water		517 - 520 nm	Solubility 0.1 % (Water)		Clear solution
Absorptivity (A1 % 1cm in water)		≥ 800			

catalogue number	packing specs	weight in pack	pack in box
919.D02.0010	plastic bottle	10 g	6 pieces
919.D02.0025	plastic bottle	25 g	6 pieces
919.D02.0050	plastic bottle	50 g	6 pieces
919.D02.0100	plastic bottle	100 g	6 pieces

Eosin Yellow



- C.I NO: 45380
- $C_{20}H_6Br_4Na_2O_5$
- CAS-No: 17372-87-1
- EC-No: 241-409-6
- EC index No: -
- M= 691.86 g/mol

- Solubility in H_2O -
- Colour: Brownish red
- Odour: -
- pH value: Not applicable
- Melting point: -
- Irritant

- H-STATEMENT/EUH: H319 / P280; 264;305 + 351+338;337+313
- HS-CODE: 3204.1200
- LGK: 10-13

919.D03 *Eosin Yellow* - *(C.I. 45380) for microscopy*

Specification

Appearance	Brownish red fine powder		Solubility 0.1 % (Water)		Clear solution
Dye content (Spectrophotometry)		≥ 90 %	Suitability for microscopy		passes test
Absorption maxima		515 - 518 nm	Copper (Cu)		≤ 0.005 %
Absorptivity			Iron (Fe)		≤ 0.005 %
(A1 %, 1cm in water at λ max)		1200 - 1400	Nickel (Ni)		≤ 0.005 %
Loss on drying (110°C)		≤ 8 %	Lead (Pb)		≤ 0.005 %

catalogue number	packing specs	weight in pack	pack in box
919.D03.0010	plastic bottle	10 g	6 pieces
919.D03.0025	plastic bottle	25 g	6 pieces
919.D03.0050	plastic bottle	50 g	6 pieces
919.D03.0100	plastic bottle	100 g	6 pieces

lab chemicals & reagents

Eriochrome black T



- C.I NO: 14645
- $C_{20}H_{12}N_3NaO_7S$
- CAS-No: 1787-61-7
- EC-No: 217-250-3
- EC index No: -
- M= 461.38 g/mol
- Solubility in H_2O -
- Colour: Brownish black powder
- Odour: Odorless
- pH value: Not applicable
- Melting point: -
- -
- H-STATEMENT/EUH: H319;411 / P273;305+351+338
- HS-CODE: 3204.1900
- LGK: 10-13
- UN: 3077

920.D01 *Eriochrome black T* - *(C.I. 14645)*

Specification

Appearance	Brownish black powder
Clarity of solution	passes test
Absorption maximum (pH 10)	612 - 616 nm
Spec. Absorptivity A1 % 1m (λ max; 0.02 g/l; buffer pH 10.0; calc. on dried substance)	≥ 300
Loss on drying (110°C)	≤ 7 %
Suitability as metal indicator	passes test

catalogue number	packing specs	weight in pack	pack in box
920.D01.0010	plastic bottle	10 g	6 pieces
920.D01.0025	plastic bottle	25 g	6 pieces
920.D01.0050	plastic bottle	50 g	6 pieces
920.D01.0100	plastic bottle	100 g	6 pieces

Ethanol



- C_2H_6O
- CAS-No: 64-17-5
- EC-No: 200-578-6
- EC index No: 603-002-00-5
- M= 46.07 g/mol
- Vapour Pressure: 59 hPa (20°C)
- Specific density: 0.790 - 0.793 g/cm³ (20°C)
- Flash point: 12°C
- Solubility in H_2O Completely miscible at 20°C
- pH value: 7.0 (10 g/l, H_2O, 20°C)
- Melting point: -114.5°C
- Bulk density: -
- Boiling point: 78.3°C (1013 hPa)
- Ignition temperature: 425°C
- Explosive limit: 3.5 - 15 %(V)
- Viscosity kinematic: -
- Flammable
- H-STATEMENT/EUH: H225;319 / P210;240; 305+351+338;403+233
- Test Type: LD50 Oral rat
- Results: 7060 mg/kg
- HS-CODE: 2207 10 00
- LGK: 3
- Disposal: -
- WGK: 1
- UN: 1170

920.026 *Ethanol Absolute* - *ACS, ISO Reagent, pH. Eur*

Specification

Purity (GC)	≥ 99.9 %
Identity (IR)	passes test
Solubility in water	passes test
Appearance	passes test
Colour	≤ 10 Hazen
Acidity or alkalinity	≤ 0.003 %
Titrable acid	≤ 0.0002 meq/g
Titrable base	≤ 0.0002 meq/g
Density (d 20°C/20°C)	0.790 - 0.793
UV absorption	passes test
Fusel oils	passes test
Substances reducing potassium permanganate (as O)	≤ 0.0002 %
Aldehydes (as Acetaldehyd)	≤ 0.001 %
Carbonyl compounds (as CO)	≤ 0.003 %
Acetone (GC)	≤ 0.001 %
Isoamyl alcohol (GC)	≤ 0.05 %
2-Propanol (GC)	≤ 0.003 %
Higher alcohols (GC)	≤ 0.01 %
Volatile impurities (GC) (Acetaldehyde and Acetal)	≤ 0.001 %
Volatile impurities (GC) (Benzene)	≤ 0.0002 %
Volatile impurities (GC) (Methanol)	≤ 0.02 %
Volatile impurities (GC) (Total of other impurities)	≤ 0.03 %
Volatile impurities (GC) (disregard limit)	≤ 0.0009 %

Water	≤ 0.1 %
Chloride (Cl)	≤ 0.00003 %
Sulphate (SO_4)	≤ 0.00003 %
Ag (Silver)	≤ 0.000002 %
Nitrate (NO^3)	≤ 0.00003 %
As (Arsenic)	≤ 0.000002 %
Phosphate (PO_4)	≤ 0.00003 %
Al (Aluminum)	≤ 0.00005 %
Au (Gold)	≤ 0.000002 %
Ba (Barium)	≤ 0.00001 %
Be (Beryllium)	≤ 0.000002 %
Bi (Bismuth)	≤ 0.000002 %
Ca (Calcium)	≤ 0.00005 %
Cd (Cadmium)	≤ 0.000005 %
Co (Cobalt)	≤ 0.000002 %
Cr (Chromium)	≤ 0.000002 %
Cu (Copper)	≤ 0.000002 %
Fe (Iron)	≤ 0.00001 %
Ga (Gallium)	≤ 0.000002 %
In (Indium)	≤ 0.000002 %
Sn (Tin)	≤ 0.00001 %
Li (Lithium)	≤ 0.000002 %
Mg (Magnesium)	≤ 0.00001 %
Mn (Manganese)	≤ 0.000002 %
Ti (Titanium)	≤ 0.000002 %
Tl (Thallium)	≤ 0.000002 %
V (Vanadium)	≤ 0.000002 %

Zn (Zinc)	≤ 0.00001 %
Mo (Molybdenum)	≤ 0.000002 %
Ni (Nickel)	≤ 0.000002 %
Pb (Lead)	≤ 0.00001 %
Pt (Platinum)	≤ 0.000002 %
Sb (Antimony)	≤ 0.000002 %
Zr (Zirconium)	≤ 0.000002 %
Evaporation residue	≤ 0.0005 %

catalogue number	packing specs	volume in pack	pack in box
920.026.2500	plastic bottle	2.5 l	4 pieces
920.026.2501	glass bottle	2.5 l	4 pieces

920.027 *Ethanol* - *Gradient grade for liquid chromatography*

Specification

Purity (GC)	≥ 99.9 %
Identity (IR)	passes test
Evaporation residue	≤ 0.0002 %
Water	≤ 0.1 %
Acidity	≤ 0.0002 meq/g
Alkalinity	≤ 0.0002 meq/g
Gradient grade (at 235 nm)	≤ 5 mAU
Gradient grade (at 254 nm)	≤ 2 mAU
Transmission (at 225 nm)	≥ 60 %
Transmission (at 240 nm)	≥ 85 %
Transmission (at 260 nm)	≥ 98 %
Fluorescence (chinin) at 254 nm	≤ 0.0000001 %
Fluorescence (chinin) at 365 nm	≤ 0.0000001 %
Filtered by 0.2 µm filter	

catalogue number	packing specs	volume in pack	pack in box
920.027.2501	glass bottle	2.5 l	4 pieces

Ethyl acetate



- $C_4H_8O_2$
- CAS-No: 141-78-6
- EC-No: 205-500-4
- EC index No: 607-022-00-5
- M= 88.11 g/mol
- Vapour Pressure: 97 hPa (20°C)
- Specific density: 0.90 g/cm³ (20°C)
- Flash point: -4°C
- Solubility in H_2O 85.3 g/l at 20°C
- pH value: -
- Melting point: -83°C
- Bulk density: -
- Boiling point: 77°C (1013 hPa)
- Ignition temperature: 460°C
- Explosive limit: 2.1 - 11.5 %(V)
- Viscosity kinematic: -
- Flammable, Irritant
- H-STATEMENT/EUH: H225; 319; 336, EUH066 / P210; 240;305+351+338;403+233
- Test Type: LD50 Oral rat ; LD50 Dermal rabbit
- Results: 5620 mg/kg ; > 18000 mg/kg
- HS-CODE: 2915 31 00 ➤ LGK: 3
- Disposal: 1 ➤ WGK: 1
- UN: 1173

920.013 *Ethyl acetate* - *Ph. Eur., BP, NF*

Specification

Purity	≥ 99.5 %	Methyl Compounds (as methylacetate)	≤ 0.01 %
Appearance	Colorless, liquid	Substances dark by H_2SO_4	passes test
Titratable acid (as CH_3COOH)	≤ 0.005 %	Cu (Copper)	≤ 0.000002 %
Related Substances	≤ 0.2 %	Fe (Iron)	≤ 0.00001 %
Refractive index	1.372 - 1.373	Lead (Pb)	≤ 0.00001 %
Water	≤ 0.05 %	Ethanol	≤ 0.1 %
Evaporation residue	≤ 0.001 %	Methanol (GC)	≤ 0.1 %
Infrared Spectrum	passes test	Methyl Acetate (GC)	≤ 0.1 %
Chromatographic purity	passes test	Organic impurities	passes test
Residual solvents	passes test	Benzene Content (C_6H_6)	≤ 0.0002 %

catalogue number	packing specs	volume in pack	pack in box
920.013.2501	glass bottle	2.5 l	4 pieces

920.017 *Ethyl acetate* - *For liquid chromatography*

Specification

Purity (GC)	≥ 99.8 %	Alkalinity	≤ 0.0002 meq/g
Identity (IR)	passes test	Transmission (at 260 nm)	≥ 50 %
Evaporation residue	≤ 0.0002 %	Transmission (at 265 nm)	≥ 80 %
Water	≤ 0.05 %	Transmission (at 270 nm)	≥ 98 %
Acidity	≤ 0.0002 meq/g	Filtered by 0.2 µm filter	

catalogue number	packing specs	volume in pack	pack in box
920.017.2501	glass bottle	2.5 l	4 pieces

Ethylene glycol



- $C_2H_6O_2$
- CAS-No: 107-21-1
- EC-No: 203-473-3
- EC index No: 603-027-00-1
- M= 62.07 g/mol
- Vapour Pressure: 0.053 hPa (20°C)
- Specific density: 1.11 g/cm³ (20°C)
- Flash point: 111°C
- Solubility in H_2O 1000 g/l at 20°C
- pH value: 6 - 7.5 (100 g/l, H_2O, 20°C)
- Melting point: -14 - -10°C
- Bulk density: -
- Boiling point: 197.6°C (1013 hPa)
- Ignition temperature: 410°C
- Explosive limit: 3.2 - 15.3 %(V)
- Viscosity kinematic: -
- Harmful
- H-STATEMENT/EUH: H302;373 / P314
- Test Type: LD50 Oral rat
- Results: > 5000 mg/kg
- HS-CODE: 2905 31 00
- LGK: 10-13
- Disposal: - ➤ WGK: 1
- UN: -

920.032 *Ethylene glycol* - *Extra pure*

Specification

Purity	≥ 99 %	Color test	≤ 10 APHA
Appearance	Colorless, liquid	Acidity	≤ 0.1 ml N %
Infrared spectrum	passes test	Sulphated Ash	≤ 0.01 %

catalogue number	packing specs	volume in pack	pack in box
920.032.2501	glass bottle	2.5 l	4 pieces

Evans blue



- C.I NO: 23860
- $C_{34}H_{24}N_6Na_4O_{14}S_4$
- CAS-No: 314-13-6
- EC-No: 206-242-5
- EC index No: -
- M= 960.81 g/mol
- Solubility in H_2O -
- Colour: Dark brown
- Odour: -
- pH value: Not applicable
- Melting point: -
- Carcinogen
- H-STATEMENT/EUH: H350 / P201; 308+313
- HS-CODE: 3204.9000
- LGK: -

920.D05 *Evans blue* - *(C.I. 23860) For microscopy*

Specification

Appearance	Dark brown to very dark brown or black powder	Absorption maxima	606 - 611 nm
Dye Content	≥ 85 %	Absorptivity 1 %, 1cm (On dried subs.) at absorption maxima	≥ 800
Solubility (0.1 % in distilled water)	Clear blue solution	Loss on drying (110°C)	≤ 10.0 %
		Suitability for microscopy	passes test

catalogue number	packing specs	weight in pack	pack in box
920.D05.0010	plastic bottle	10 g	6 pieces
920.D05.0025	plastic bottle	25 g	6 pieces
920.D05.0050	plastic bottle	50 g	6 pieces
920.D05.0100	plastic bottle	100 g	6 pieces

Fast green FCF



- C.I NO: 42053
- $C_{37}H_{34}N_2Na_2O_{10}S_3$
- CAS-No: 2353-45-9
- EC-No: 219-091-5
- EC index No: -
- M= 808.86 g/mol
- Solubility in H_2O -
- Colour: Reddish brown
- Odour: Odorless
- pH value: Not applicable
- Melting point: 290°C
- Harmful
- H-STATEMENT/EUH: H371 / P260; 264;270; 309+311;405; 501
- HS-CODE: 3204.9000
- LGK: 10-13

921.D01 *Fast green FCF* - *(C.I. 42053) For microscopy*

Specification

Appearance	Reddish brown coloured powder	Ratio of λ max. P+/-15 nm	0.98 - 1.20
Absorption maxima (ethanol 50 %)	622 - 626 nm	Loss on drying (110°C)	≤ 10 %
A1 %, 1 cm, λ max.	≥ 110		

catalogue number	packing specs	weight in pack	pack in box
921.D01.0010	plastic bottle	10 g	6 pieces
921.D01.0025	plastic bottle	25 g	6 pieces
921.D01.0050	plastic bottle	50 g	6 pieces
921.D01.0100	plastic bottle	100 g	6 pieces

Fluorescein



- C.I NO: 45350
- $C_{20}H_{12}O_5$
- CAS-No: 2321-07-5
- EC-No: -
- EC index No: -
- M= 332.31 g/mol
- Solubility in H_2O -
- Colour: Orange red powder
- Odour: Odorless
- pH value: Not applicable
- Melting point: 320°C
- Harmful
- H-STATEMENT/EUH: H302;319 / P280; 264;270;301+312;305+351+338;337+313;501
- HS-CODE: 3204.1200
- LGK: -

923.D02 *Fluorescein* - *(C.I. 45350)*

Specification

Appearance	Orange red brown or maroon powder	E(284 ± 2 nm)	≥ 12000
		E(238 ± 2 nm)	≥ 39000
Assay (on dried substance)	≥ 95 %	Loss on drying (at 105°C)	≤ 5.0 %
Solubility (in 1N NAOH)	50 mg/ml	Melting point	about 315°C
Molar absorptivity E(490 ± 2nm)	≥ 70000		

catalogue number	packing specs	weight in pack	pack in box
923.D02.0010	plastic bottle	10 g	6 pieces
923.D02.0025	plastic bottle	25 g	6 pieces
923.D02.0050	plastic bottle	50 g	6 pieces
923.D02.0100	plastic bottle	100 g	6 pieces

Fluorescein sodium

- C.I NO: 45350
- $C_{20}H_{10}Na_2O_5$
- CAS-No: 518-47-8
- EC-No: 208-253-0
- EC index No: -
- M= 376.27 g/mol
- Solubility in H_2O 500 g/l at 20°C
- Colour: Dark red crystalline
- Odour: Odorless
- pH value: Not applicable
- Melting point: > 300°C
- -
- H-STATEMENT/EUH: -
- HS-CODE: 3204.1200
- LGK: 10-13

923.D01 *Fluorescein sodium* - *(C.I. 45350)*

Specification

Appearance	Orange-red to green-brown to dark brown powder	Absorption maxima (in buffer pH 8.0)	488 - 491 nm
		UV absorbance ratio (P-15/P+10)	1.2 - 1.7
Identity (IR)	passes test	Specific absorptivity 1 %/1cm	
Loss on drying (at 105 °C)	≤ 10 %	(at lmax, buffer pH 8.0)	≥ 1700

catalogue number	packing specs	weight in pack	pack in box
923.D01.0010	plastic bottle	10 g	6 pieces
923.D01.0025	plastic bottle	25 g	6 pieces
923.D01.0050	plastic bottle	50 g	6 pieces
923.D01.0100	plastic bottle	100 g	6 pieces

Formaldehyde solution about 37 %



- -
- CAS-No: -
- EC-No: -
- EC index No: -
- M= -
- Vapour Pressure: > 100 (kPa)
- Specific density: 1.09 g/cm³ (20°C)
- Flash point: 69°C water solution
- Solubility in H_2O soluble at 20°C
- pH value: 2.8 - 4.0 (H_2O, 20°C)
- Melting point: <-15°C
- Bulk density: -
- Boiling point: 93 - 96°C (1013 hPa)
- Ignition temperature: 300°C (Formaldehyde)
- Explosive limit: 7 - 73 %(V) (Formaldehyde)
- Viscosity kinematic: -
- toxic, corrosive, carcinogenic, sensitising, mutagenic
- H-STATEMENT/EUH: H350;301+311+331; 314; 317;335;341;370 / P201;280;301+330+331; 302+352;304+340;305+351+ 338;308+310
- Test Type: LD50 Oral rat
- Results: 100 mg/kg
- HS-CODE: 2912 11 00 - LGK: 6.1 C
- Disposal: 9 - WGK: 2 - UN: 2209

923.012 *Formaldehyde solution about %37 -* *Extra pure*

Specification

Appearance	Colorless, clear	Methanol	6.0 - 8.0 %
Assay	36.5 - 38.0 %	Density (25°C)	1.095 - 1.1135 g/ml

catalogue number	packing specs	volume in pack	pack in box
923.012.1000	plastic bottle	1 l	6 pieces
923.012.2500	plastic bottle	2.5 l	4 pieces

923.015 *Formaldehyde solution about %37 -* *GR for analysis ACS,Reag. Ph Eur*

Specification

Assay (acidimetric)	36.5 - 38.0 %	Chloride (Cl)	≤ 0.0001 %
Assay (iodometric)	36.5 - 38.0 %	Sulphate (SO_4)	≤ 0.002 %
Identity	passes test	Heavy metals (as Pb)	≤ 0.0002 %
Colour	≤ 10 Hazen	Fe (Iron)	≤ 0.0001 %
Appearance of solution	passes test	Methanol (GC)	9.0 - 11.0 %
Free acid (as HCOOH)	≤ 0.025 %	Sulfated ash	≤ 0.002 %
Density (20 °C)	1.080 - 1.090 g/ml		

catalogue number	packing specs	volume in pack	pack in box
923.015.1000	plastic bottle	1 l	6 pieces
923.015.2500	plastic bottle	2.5 l	4 pieces
923.015.5000	plastic bottle	5 l	4 pieces

Formic acid



- CH_2O_2
- CAS-No: 64-18-6
- EC-No: 200-579-1
- EC index No: 607-001-00-0
- M= 46.03 g/mol
- Vapour Pressure: 42 hPa (20°C)
- Specific density: 1.22 g/cm³ (20°C)
- Flash point: 48°C
- Solubility in H_2O soluble at 20°C
- pH value: 2.2 (10 g/l, H_2O, 20°C)
- Melting point: 8.4°C
- Bulk density: -
- Boiling point: 101°C (1013 hPa)
- Ignition temperature: 480°C
- Explosive limit: 12 - 57 %(V)
- Viscosity kinematic: -
- Corrosive
- H-STATEMENT/EUH: H226;302;314;331, EUH071 / P210;280;301+330+331;304+340; 305+ 351+338;308+310
- Test Type: LD50 Oral rat
- Results: 1100 mg/kg
- HS-CODE: 2915 11 00 - LGK: 3
- Disposal: 4 - WGK: 1 - UN: 1779

923.022 *Formic acid 85 % -* *Extra pure*

Specification

Appearance	Colorless, clear, liquid	SO_4 (Sulfate)	≤ 0.001 %
Assay	≥ 85.0 %	Fe (Iron)	≤ 0.0001 %
Color (PT-CO)	≤ 10	Evaporation residue	≤ 0.006 %
Cl (Chloride)	≤ 0.002 %		

catalogue number	packing specs	volume in pack	pack in box
923.022.1000	plastic bottle	1 l	6 pieces
923.022.2500	plastic bottle	2.5 l	4 pieces

923.023 *Formic acid 98 % - 100 % -* *DAC, FCC*

Specification

Assay	≥ 98.0 %	Acetic acid (GC)	≤ 0.05 %
Appearance	passes test	Sulphites (SO_3)	≤ 0.001 %
Density	1.216 - 1.220	Sulfate (SO_4)	≤ 0.001 %
Solubility in water	passes test	Chloride (Cl)	≤ 0.0005 %
Chromatographic purity	passes test	Cu (Copper)	≤ 0.0005 %
Infrared spectrum	passes test	Iron (Fe)	≤ 0.0003 %
Residual solvents	passes test	Lead (Pb)	≤ 0.0005 %
Non-volatile matter	≤ 0.002 %	Nitrogen compounds (N)	≤ 0.002 %
Heavy metals (As Pb)	≤ 0.001 %		

catalogue number	packing specs	volume in pack	pack in box
923.023.2501	glass bottle	2.5 l	4 pieces

Fuchsin Acid



- C.I NO: 42685
- $C_{20}H_{17}N_3Na_2O_9S_3$
- CAS-No: 3244-88-0
- EC-No: 221-816-5
- EC index No: -
- M= 585.54 g/mol
- Solubility in H_2O Appreciable (> 10 %)
- Colour: Dark green
- Odour: Odorless
- pH value: Not applicable
- Melting point: -
- Irritant
- H-STATEMENT/EUH: H302;319;315;335 / P280;271;261;264;270;302+352;301+312;332+313;305+351+338;304+340;363;403+233;405;501
- HS-CODE: 3204.1200
- LGK: 10-13

924.D01 *Fuchsin Acid* - *(C.I. 42685) for microscopy*

Specification

Appearance	Dark green powder/Olive green crystals with bronze metallic luster
Absorption max in HCl 0.005 mol/L	540 - 545 nm
Absorptivity (A1 % 1 cm at λ max.)	≥ 800
Ratio λ max. P ± 15nm	1.10 - 1.26
Loss on drying (135°C)	≤ 10 %

catalogue number	packing specs	weight in pack	pack in box
924.D01.0010	plastic bottle	10 g	6 pieces
924.D01.0025	plastic bottle	25 g	6 pieces
924.D01.0050	plastic bottle	50 g	6 pieces
924.D01.0100	plastic bottle	100 g	6 pieces

Fuchsin Basic



- C.I NO: 42510
- $C_{20}H_{20}ClN_3$
- CAS-No: 632-99-5
- EC-No: 211-189-6
- EC index No: -
- M= 337.85 g/mol
- Solubility in H_2O
- Colour: Dark green
- Odour: Odorless
- pH value: Not applicable
- Melting point: 268 - 270°C
- Toxic, Harmful
- H-STATEMENT/EUH: H302;371 / P260;264;270;301+312;309+311;405;501
- HS-CODE: 3204.1300
- LGK: 6.1A

924.D02 *Fuchsin Basic* - *(C.I. 42510) for microscopy*

Specification

Appearance	Dark green coloured powder
Dye content (by spectrophotometry)	≥ 85 %
Absorption maxima (in 50 % ethanol)	545 - 555 nm
Specific Absorptivity (0.003 g/l, 50 % ethanol)	2290 - 2710
Loss on drying (135°C)	≤ 15 %

catalogue number	packing specs	weight in pack	pack in box
924.D02.0010	plastic bottle	10 g	6 pieces
924.D02.0025	plastic bottle	25 g	6 pieces
924.D02.0050	plastic bottle	50 g	6 pieces
924.D02.0100	plastic bottle	100 g	6 pieces

Formic acid 0.1 % in Water

- -
- CAS-No: -
- EC-No: -
- EC index No: -
- M= -
- Vapor Pressure: ≈ 23 hPa (17 mm Hg)
- Specific density: ≈ 1 g/cm³ (20°C)
- Flash point: Not applicable
- Soluble in H_2O Fully miscible
- pH value -
- Melting point: ≈ 0°C
- Bulk density: -
- Boiling point: ≈ 100°C
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: -
- Results: -
- HS-CODE: 2915 11 00
- LGK: 10-13
- Disposal: 28
- WGK: - ➤ UN: -

923.048 *Formic acid 0.1 % in Water* - *LC-MS*

Specification

Assay (T)	0.095 - 0.105 %
Appearance	Clear colorless liquid
Color (APHA, Pt-Co)	< 10
pH	2.6 - 2.8
T210 nm	5 - 100 %
T230 nm	45 - 100 %
T245 nm	99 - 100 %
Grad. Elution H.Peak at 254 nm	≤ 0.002 AU
Grad. Elution Drift at 254 nm	≤ 0.01 AU
MS-ESI+(as Reserpine)	0.000005 %
Al (Aluminum)	≤ 0.00001 %
Ca (Calcium)	≤ 0.000005 %
Fe (Iron)	≤ 0.000002 %
K (Potassium)	≤ 0.000005 %
Mg (Magnesium)	≤ 0.000005 %
Na (Sodium)	≤ 0.000005 %
Pb (Lead)	≤ 0.000002 %

catalogue number	packing specs	volume in pack	pack in box
923.048.2501	glass bottle	2.5 l	4 pieces

Formic acid 0.1 % in Acetonitrile



- -
- CAS-No: -
- EC-No: -
- EC index No: -
- M= -
- Vapour Pressure: ≈ 97 hPa (20°C)
- Specific density: ≈ 0.786 g/cm^3
- Flash point: ≈ 2°C
- Solubility in H_2O fully miscible
- pH value: -
- Melting point: ≈ -45.7°C
- Bulk density: -
- Boiling point: ≈ 81.6°C (1013 hPa)
- Ignition temperature: ≈ 524°C
- Explosive limit: 3.0 - 17 %(V)
- Viscosity kinematic: -
- Flammable, Harmful, Irritant
- H-STATEMENT/EUH: H225;302+312+332;319 / P210;240;302+352;305+351+338;403+233
- Test Type: - ➤ Results: -
- HS-CODE: 3824 99 92
- LGK: 3 ➤ Disposal: 1
- WGK: 2
- UN: 1648

923.038 *Formic acid 0.1 % in Acetonitrile -* *LC-MS*

Specification

Assay (T)	0.095 - 0.105 %
Appearance	Clear colorless liquid
Identity (IR)	passes test
Color (APHA, Pt-Co)	≤ 10
Grad. elution H.Peak at 254 nm	≤ 0.005 AU
LC/MS-ESI+ (as Reserpine)	≤ 0.000002 %
LC/MS-ESI- (as Reserpine)	≤ 0.000002 %
T210 nm	≥ 5 %
T230 nm	≥ 15 %
T254 nm	≥ 90 %

Al (Aluminium)	≤ 0.00005 %
Ca (Calcium)	≤ 0.00005 %
Fe (Iron)	≤ 0.00005 %
K (Potassium)	≤ 0.00005 %
Mg (Magnesium)	≤ 0.00005 %
Na (Sodium)	≤ 0.00005 %
Filtered by 0.2 µm filter	

catalogue number	packing specs	volume in pack	pack in box
923.038.2501	glass bottle	2.5 l	4 pieces

lab chemicals & reagents

Giemsa's stain



- C.I NO: -
- -
- CAS-No: 51811-82-6
- EC-No: 257-438-2
- EC index No: -
- M= -
- Solubility in H_2O -
- Colour: Black
- Odour: Odorless
- pH value: Not applicable
- Melting point: 3000°C
- Irritant
- H-STATEMENT/EUH: H318;302;319;412 / P280;273;264;270;301+312;305+351+338;337+313;501
- HS-CODE: 3204 19 00
- LGK: -

926.D01 - *Giemsa's stain* - *For microscopy*

Specification

Appearance	Dark green colored powder	Absorptivity at absorb. max 1	≤ 800
Absorption maxima λ1 (methanol)	647 - 653 nm	Absorptivity at absorb. max 2	≤ 350
Absorption maxima λ2 (methanol)	520 - 526 nm	Loss on drying(at 105 °C)	≤ 10 %

catalogue number	packing specs	weight in pack	pack in box
926.D01.0025	plastic bottle	10 g	6 pieces
926.D01.0100	plastic bottle	25 g	6 pieces
926.D01.0050	plastic bottle	50 g	6 pieces
926.D01.0100	plastic bottle	100 g	6 pieces

Glycerol 85 %

- -
- CAS-No: 56-81-5
- EC-No: 200-289-5
- EC index No: -
- M= -
- Vapour Pressure: < 0.1 hPa (20°C)
- Specific density: 1.23 g/cm³ (20°C)
- Flash point: 180°C
- Solubility in H_2O soluble at 20°C
- pH value: 5 (100 g/l, H_2O, 20°C)
- Melting point: -
- Bulk density: -
- Boiling point: >130°C (1013 hPa)
- Ignition temperature: 429°C
- Explosive limit: not applicable
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 Oral rat
- Results: 27200 mg/kg
- HS-CODE: 2905 45 00
- LGK: 10
- Disposal: 3
- WGK: 1
- UN: -

927.023 *Glycerol 85 %* - *Ph Eur, BP*

Specification

Assay (APAG-GL-009)	84 - 87 %	Heavy metals (as Pb)	≤ 0.0005 %	Sulfated ash	≤ 0.01 %
Assay (Eur.Ph.)	83.5 - 88.5 %	Aldehydes	≤ 0.001 %	Water	13.0 - 16.0 %
Appearance of solution	passes test	Arsenic	≤ 0.0002 %	Readily carbonizable substances	passes test
Acidity or alkalinity	passes test	Calcium	passes test	Residue on ignition	passes test
Identity	passes test	NH_4 (Ammonium)	passes test	Acrolein,glucose & other red. substances	passes test
Identification A (refractive index)	passes test	Sulphate (SO_4)	≤ 0.002 %	Fatty acids and esters	passes test
Identification B (IR)	passes test	Diethylene glycol and related Substances (impurity A)	≤ 0.1 %		
Identification C (Nitric acid)	passes test				
Identification D (Acrolein test)	passes test	Diethylene glycol and related Substances (any further impurity)	≤ 0.1 %		
Refractive index (20 °C)	1.449 - 1.454				
Density (20 °C)	1.221 - 1.230 g/ml	Diethylene glycol and related Substances (Sum of all impurities)	≤ 0.5 %		
Colour APHA	≤ 10	Esters	≥ 8 ml		
Chloride (Cl)	≤ 0.001 %	Sugar	passes test		
Halogenated compounds (as Cl)	≤ 0.003 %				

catalogue number	packing specs	volume in pack	pack in box
927.023.1000	plastic bottle	1 l	6 pieces
927.023.2500	plastic bottle	2.5 l	4 pieces

Glycine

- $C_2H_5NO_2$
- CAS-No: 56-40-6
- EC-No: 200-272-2
- EC index No: -
- M= 75.06 g/mol
- Vapour Pressure: 0.0000171 Pa (25°C)
- Specific density: 1.161 g/cm³ (20°C)
- Flash point: not applicable
- Solubility in H_2O 250 g/l (25°C)
- pH value: 5.9 - 6.4 (50 g/l, H_2O, 20°C)
- Melting point: 233°C (decomposition)
- Bulk density: 920 kg/m³
- Boiling point: not applicable
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 Oral rat
- Results: 7930 mg/kg
- HS-CODE: 2922 49 85
- LGK: 10 - 13
- Disposal: 3
- WGK: 1 ➤ UN: -

927.033 *Glycine* - *Ph.Eur.,BP,JP,USP*

Specification

Assay	99.0 - 101.0 %
Identification (IR.TLC)	passes test
Appearance	white to almost white. crystalline powder
Appearance of solution	passes test
pH (%5 . H_2O. 25°C)	5.9 - 6.3
Chloride (Cl)	≤ 0.007 %
Sulphate (SO_4)	≤ 0.006 %
Heavy metals (as Pb)	≤ 0.0005 %
As (Arsenic)	≤ 0.0001 %
Hydrolyzable substances	passes test
Ninhydride -positive substances(TLC)	≤ 0.5 %
Any ninhydrin-positive substance (by AAA)	≤ 0.1 %
Ammonium (by AAA)	≤ 0.02 %
Total ninhydrin-positive substance (by AAA)	≤ 1.0 %
Glycine anhydride (HPLC) (Impurity B)	≤ 0.1 %
Diglycine (HPLC) (Impurity H)	≤ 0.1 %
Triglycine (HPLC) (Impurity I)	≤ 0.1 %
Related substances (HPLC) (unspecified impurities)	≤ 0.1 %
Related substances (HPLC) (Sum of all impurities)	≤ 0.2 %
Monochloroacetic acid	≤ 0.02 %
Iminodiacetic acid	≤ 0.05 %
Hexamethylenetetramine	≤ 0.03 %
Methanol (GC)	≤ 0.3 %
Loss on drying (105°C, 3h)	≤ 0.2 %
Sulfated ash	≤ 0.1 %
Total viable aerobic count	≤ 100 CFU/g
Moulds and yeasts	≤ 10 CFU/g
Escherichia Coli	≤ 0 CFU/g
Salmonellen / Salmonella	≤ 0 CFU/g
Pseudomonas aeruginosa	≤ 0 CFU/g
Staphylococcus aureus	≤ 0 CFU/g
Iron (Fe)	≤ 0.001 %
Residual Solvent	passes test
Bile-tolerant gram - negative bacteria	0 CFU/g
Candida albicans	0 CFU/g

catalogue number	packing specs	weight in pack	pack in box
927.033.0250	plastic bottle	250 g	6 pieces
927.033.0500	plastic bottle	500 g	6 pieces
927.033.1000	plastic bottle	1 kg	6 pieces

927.035 *Glycine* - *GR for analysis*

Specification

Assay (titration with $HClO_4$)	≥ 99.7
Identity (IR-Spectrum)	passes test
Insoluble in water	≤ 0.003 %
pH (5 %. H_2O)	5.9 - 6.3
Chlorides (Cl)	≤ 0.003 %
Sulphate (SO_4)	≤ 0.0025 %
Ammonium (NH_4)	≤ 0.005 %
Copper (Cu)	≤ 0.0001 %
Heavy metals (as Pb)	≤ 0.001 %
Iron (Fe)	≤ 0.0001 %
Lead (Pb)	≤ 0.0001 %
Hydrolyzable substances	passes test
Other ninhydrin positive substances (as glycine)	≥ 0.1 %
Other aminoacids	≤ 0.1 %
Substances darkened by H_2SO_4	passes test
Residue on ignition (600 °C)	≤ 0.05 %
Water (K.F.)	≤ 0.1 %

catalogue number	packing specs	weight in pack	pack in box
927.035.0100	plastic bottle	100 g	6 pieces
927.035.0250	plastic bottle	250 g	6 pieces
927.035.0500	plastic bottle	500 g	6 pieces
927.035.1000	plastic bottle	1 kg	6 pieces

D (+)- Glucose monohydrate

- $C_6H_0{}_2O_6{}^*H_2O$
- CAS-No: 14431-43-7
- EC-No: 200-075-1
- EC index No: -
- M= 198.17 g/mol
- Vapour Pressure: -
- Specific density: 0.62 kg/l
- Flash point: -
- Solubility in H_2O 1000 g/l
- pH value: 4 - 6 (%50)
- Melting point: 83°C
- Bulk density: 630 kg/m³
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 Oral rat
- Results: 25800 mg/kg
- HS-CODE: 1702 30 50
- LGK: 10 - 13
- Disposal: 3
- WGK: 1 ➤ UN: -

927.013 *D (+)- Glucose monohydrate* - *Ph Eur, BP, USP*

Specification

Assay	97.5 - 102.0 %
Identification test (A, B, C)	passes test
Appearance	White, crystalline powder
Appearance in Solution	passes test
Acidity	≤ 0.3 ml
Conductivity	≤ 20 µS/cm
Specific rotation	52.6 - 53.2 °
Chloride (Cl)	≤ 0.018 %
Sulphate (SO_4)	≤ 0.025 %
Heavy Metals (as Pb)	≤ 0.0005 %
Pb (lead)	≤ 0.00005 %
Ba (Barium)	passes test
Ca (Calcium)	≤ 0.02 %
As (Arsenic)	≤ 0.0001 %
Total Aerobic microbial count	≤ 1000 CFU/g
Escherichia Coli	absence in 10 g
Salmonella	absence in 10 g
Total yeast and mould count	≤ 100 CFU/g
Related substance; Sum of impurities A (maltose) and B (isomaltose)	≤ 0.4 %
Related substance; Impurity C (Maltotriose)	≤ 0.2 %
Related substance; Impurity D (Fructose)	≤ 0.15 %
Related substance; Unspecified impurities	≤ 0.1 %
Related substance; Total of impurities	≤ 0.5 %
Foreign sugars, soluble starch, dextrins	passes test
Soluble Starch, sulfites (EP)	≤ 0.0015 %
Soluble Starch, sulfites (USP)	passes test
Residue on ignition	≤ 0.1 %
Water	7.5 - 9.5 %

catalogue number	packing specs	weight in pack	pack in box
927.013.1000	plastic bottle	1 kg	6 pieces

lab chemicals & reagents

n-Heptane



- C_7H_{16}
- CAS-No: 142-82-5
- EC-No: 205-563-8
- EC index No: 601-008-00-2
- M= 100.2 g/mol
- Vapour Pressure: 48 hPa (20°C)
- Specific density: 0.68 g/cm³ (20°C)
- Flash point: -4°C
- Solubility in H_2O insoluble
- pH value: -
- Melting point: -90.5°C
- Bulk density: -
- Boiling point: 97 - 98°C (1013 hPa)
- Ignition temperature: 215°C
- Explosive limit: 1 - 7 %(V)
- Viscosity kinematic: -
- Flammable, Harmful, Dangerous for the environment
- H-STATEMENT/EUH: H225;304;315;336;410 / P210;240;273;301+330+331;302+352;403+233
- Test Type: LD50 Oral rat ; LD50 Dermal rabbit
- Results: > 5000 mg/kg ; > 2000 mg/kg
- HS-CODE: 2901 10 00 - LGK: 3
- Disposal: 1 - WGK: 2 - UN: 1206

930.012 *n-Heptane* - *Extra pure*

Specification

Purity (GC)	≥ 99.0 %	Density (d20°C / 4°C)	0.683 - 0.684
Identity (IR)	passes test	Matter discoloured by H_2SO_4	≤ 10 Hazen
Free acid (as CH_3COOH)	≤ 0.005 %	Evaporation residue	≤ 0.005 %

catalogue number	packing specs	volume in pack	pack in box
930.012.2501	glass bottle	2.5 l	4 pieces

930.017 *n-Heptane* - *For liquid chromatography*

Specification

Purity (GC)	≥ 99.3 %	Alkalinity	≤ 0.0002 meq/g
Identity (IR)	passes test	Transmission (at 210 nm)	≥ 50 %
Evaporation residue	≤ 0.0002 %	Transmission (at 220 nm)	≥ 80 %
Water	≤ 0.005 %	Transmission (at 245 nm)	≥ 98 %
Acidity	≤ 0.0002 meq/g	Filtered by 0.2 µm filter	

catalogue number	packing specs	volume in pack	pack in box
930.017.2501	glass bottle	2.5 l	4 pieces

Hexadecane-1-sulfonic acid sodium salt

- $C_{16}H_{33}NaO_3S$
- CAS-No: 15015-81-3
- EC-No: 239-100-6
- EC index No: -
- M= 328.48 g/mol
- Vapour Pressure: -
- Specific density: -
- Flash point: -
- Solubility in H_2O -
- pH value: -
- Melting point: 265.3°C
- Bulk density: 390 kg/m³
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: -
- Results: -
- HS-CODE: 2904 10 00
- LGK: 10-13
- Disposal: 3
- WGK: - - UN: -

930.04P *Hexadecane-1-sulfonic acid sodium salt* - *for synthesis*

Specification

Assay (ex Na)	≥ 95.0 %	Identity (IR)	passes test

catalogue number	packing specs	weight in pack	pack in box
930.04P.0050	plastic bottle	50 g	6 pieces
930.04P.0100	plastic bottle	100 g	6 pieces
930.04P.1000	plastic bottle	1 kg	6 pieces

Hexadecyltrimethylammonium bromide

- $C_{16}H_{33}N(CH_3)_3Br$
- CAS-No: 57-09-0
- EC-No: 200-311-3
- EC index No: -
- M= 364.45 g/mol
- Vapour Pressure: -
- Specific density: -
- Flash point: -
- Solubility in H_2O 55 g/l at 20°C
- pH value: 5 - 7 (50 g/l, H_2O, 20°C)
- Melting point: 237 - 243°C
- Bulk density: 390 kg/m³
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- Harmful, Dangerous for the environment
- H-STATEMENT/EUH: H302;315;318;335; 373;410 / P273;280;302+352;305+351+ 338;314
- Test Type: LD50 Oral rat
- Results: 410 mg/kg
- HS-CODE: 2923 90 00
- LGK: 10-13 - Disposal: 3
- WGK: - - UN: -

930.05P *Hexadecyltrimethylammonium bromide* - *for synthesis*

Specification

Assay (ex Na)	≥ 97.0 %	Identity (IR)	passes test

catalogue number	packing specs	weight in pack	pack in box
930.05P.0051	glass bottle	50 g	6 pieces
930.05P.0101	glass bottle	100 g	6 pieces

n-Hexane



- C_6H_{14}
- CAS-No: 110-54-3
- EC-No: 203-777-6
- EC index No: 601-037-00-0
- M= 86.18 g/mol
- Vapour Pressure: 160 hPa (20°C)
- Specific density: 0.66 g/cm³ (20°C)
- Flash point: -22°C
- Solubility in H_2O 0.0095 g/l at 20°C
- pH value: not applicable
- Melting point: -95°C
- Bulk density: -
- Boiling point: 69°C (1013 hPa)
- Ignition temperature: 240°C
- Explosive limit: 1.0 - 8.1 %(V)
- Viscosity kinematic: 0.50 mm²/s (20°C)
- Flammable, Harmful, Dangerous for the environment
- H-STATEMENT/EUH: H225;304;315;336; 361fd; 373;411 / P210;240;273;301+330+331; 302+352;314;403+233
- Test Type: LD50 Oral rat ; LD50 Dermal rabbit
- Results: 25000 mg/kg ; > 2000 mg/kg
- HS-CODE: 2901 10 00 - LGK: 3
- Disposal: 1 - WGK: 2 - UN: 1208

930.022 *n-Hexane* - *Extra pure*

Specification

Purity (GC)	≥ 96.0 %
Infrared Spectrum	passes test
Water	≤ 0.01 %
Residue on Evaporation	≤ 0.001 %
Total Sulphur (as S)	≤ 0.01 %
Acidity	≤ 0.0005 meq/g
Subst. darkened by H_2SO_4	passes test
Cu (Copper)	≤ 0.00002 %
Fe (Iron)	≤ 0.00005 %
Ni (Nickel)	≤ 0.00002 %
Pb (Lead)	≤ 0.00002 %

catalogue number	packing specs	volume in pack	pack in box
930.022.2501	glass bottle	2.5 l	4 pieces

930.024 *Hexane* - *For gas chromatography ECD and FID*

Specification

Appearance	Clear colorless liquid
Assay (GC)	≥ 99.8 %
Color	≤ 10 HU
Water (KF)	≤ 0.01 %
Non volatile matter	≤ 0.0005 %
GC/ECD(retention range 1,2,4- trichlorobenzene to decachlorobiphenyl individual signals (lindane standard)	≤ 3 pg/ml
GC/FID (retention range n-undecane n-tetracontane individual signals (n-tetradecane standard))	≤ 3 ng/ml

catalogue number	packing specs	volume in pack	pack in box
930.024.2501	glass bottle	2.5 l	4 pieces

930.027 *n-Hexane* - *For liquid chromatography*

Specification

Purity (GC)	≥ 98.0 %
Identity (IR)	passes test
Evaporation residue	≤ 0 .0001 %
Water	≤ 0.01 %
Color (APHA)	≤ 10
Acidity	≤ 0.0002 meq/g
Alkalinity	≤ 0.0002 meq/g
Transmission (at 210 nm)	≥ 25 %
Transmission (at 210 nm)	≥ 50 %
Transmission (at 220 nm)	≥ 85 %
Transmission (at 245 nm)	≥ 98 %
Filtered by 0.2 µm filter	

catalogue number	packing specs	volume in pack	pack in box
930.027.2501	glass bottle	2.5 l	4 pieces

Hexane-1-sulfonic acid sodium salt

- $C_6H_{13}NaO_3S$
- CAS-No: 2832-45-3
- EC-No: 220-601-3
- EC index No: -
- M= 188.22 g/mol
- Vapour Pressure: -
- Specific density: -
- Flash point: -
- Solubility in H_2O -
- pH value: 5.5 - 7.5 (100 g/l, H²O, 20°C)
- Melting point: 300°C
- Bulk density: -
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: -
- Results: -
- HS-CODE: 2904 10 00
- LGK: 10-13
- Disposal: 3
- WGK: - - UN: -

930.03P *Hexane-1-sulfonic acid sodium salt* - *For ion pair chromatography*

Specification

Assay (alkalimetric, calculated on dried substance)	≥ 99.0 %
Identity (IR-spectrum)	passes test
pH (100 g/l, water)	5.5 - 7.5
UV-transmission (0.005 mol/l; 1 cm; Water) (at 200 nm)	≥ 70 %
UV-transmission (0.005 mol/l; 1 cm; Water) (at 220 nm)	≥ 90 %
UV-transmission (0.005 mol/l; 1 cm; Water) (at 250 nm)	≥ 98 %
Loss on drying (120 °C; 4h; Vacuum)	≤ 2.0 %

catalogue number	packing specs	weight in pack	pack in box
930.03P.0050	plastic bottle	50 g	6 pieces
930.03P.0100	plastic bottle	100 g	6 pieces
930.03P.1000	plastic bottle	1 kg	6 pieces

lab chemicals & reagents

Hydrochloric acid fuming 37 %



- CAS-No: -
- EC-No: -
- EC index No: -
- M= -
- Vapour Pressure: 190 hPa (20°C)
- Specific density: 1.19 g/cm³ (20°C)
- Flash point: not applicable
- Solubility in H_2O soluble at 20°C
- pH value: <1 (H_2O, 20°C)
- Melting point: -
- Bulk density: -
- Boiling point: -
- Ignition temperature: not applicable
- Explosive limit: -
- Viscosity kinematic: -
- Corrosive, Irritant
- H-STATEMENT/EUH: H290;314;335 / P280; 301+330+331;305+351+338;308+310
- Test Type: -
- Results: -
- HS-CODE: 2806 10 00 - LGK: 8B
- Disposal: 12 - WGK: 1
- UN: 1789

932.103 *Hydrochloric acid fuming 37 % - Ph Eur, BP, JP, NF*

Specification

Assay (alkalimetric)	37.0 - 38.0 %	Heavy metals (as Pb)	≤ 0.0001 %		
Identity	passes test	As (Arsenic)	≤ 0.0001 %		
Appearance of solution	passes test	Ca (Calcium)	≤ 0.001 %		
Bromide, Iodide (Br,I)	passes test	Fe (Iron)	≤ 0.0002 %		
Free bromine or chlorine (NF-meth.)	passes test	Hg (Mercury)	≤ 0.000004 %		
Free chlorine (Cl)	≤ 0.0001 %	Residue on ignition (as SO_4)	≤ 0.008 %		
Sulphate (SO_4)	≤ 0.0005 %				
Sulfite (SO_3)	≤ 0.001 %				

catalogue number	packing specs	volume in pack	pack in box
932.103.2501	glass bottle	2.5 l	4 pieces

932.106 *Hydrochloric acid fuming 37 % - ACS Reagent, Reag. ISO, Reag. Ph. Eur.*

Specification

Assay	≥ 37.0 %	Lithium (Li)	≤ 0.000001 %	Sulfate (SO_4)	≤ 0.0001 %
Residue on ignition (SO_4)	≤ 0.0005 %	Magnesium (Mg)	≤ 0.00001 %	Sulfite (SO_3)	≤ 0.0001 %
Non-volatile matter	≤ 0.005 %	Manganese (Mn)	≤ 0.000001 %	Appearance of the substance	passes test
Ammonium (NH_4)	≤ 0.0001 %	Molybdenum (Mo)	≤ 0.000002 %	Extractable organic substances	≤ 0.0005 %
Aluminium (Al)	≤ 0.000005 %	Sodium (Na)	≤ 0.00005 %	Color (APHA)	≤ 10
Arsenic (As)	≤ 0.000001 %	Nickel (Ni)	≤ 0.000002 %	Residual solvents	passes test
Barium (Ba)	≤ 0.000002 %	Lead (Pb)	≤ 0.000002 %		
Beryllium (Be)	≤ 0.000002 %	Strontium (Sr)	≤ 0.000001 %		
Bismuth (Bi)	≤ 0.00001 %	Titanium (Ti)	≤ 0.00001 %		
Calcium (Ca)	≤ 0.00005 %	Thallium (Tl)	≤ 0.000005 %		
Cadmium (Cd)	≤ 0.000001 %	Vanadium (V)	≤ 0.000001 %		
Cobalt (Co)	≤ 0.000001 %	Zinc (Zn)	≤ 0.000005 %		
Chromium (Cr)	≤ 0.000002 %	Zirconium (Zr)	≤ 0.00001 %		
Copper (Cu)	≤ 0.000002 %	Heavy metals (as Pb)	≤ 0.0001 %		
Iron (Fe)	≤ 0.00002 %	Free chlorine (Cl)	≤ 0.00005 %		
Germanium (Ge)	≤ 0.000005 %	Bromide (Br)	≤ 0.005 %		
Potassium (K)	≤ 0.00001 %	Phosphate (PO_4)	≤ 0.00005 %		

catalogue number	packing specs	volume in pack	pack in box
932.106.2501	glass bottle	2.5 l	4 pieces

Hydrofluoric acid



- HF
- CAS-No: 7664-39-3
- EC-No: 231-634-8
- EC index No: -
- M= 20.01 g/mol
- Vapour Pressure: 25 mm Hg (20°C)
- Specific density: 1.140 g/cm³
- Flash point: not applicable
- Solubility in H_2O completely miscible
- pH value: acidic
- Melting point: -40 °C
- Bulk density: -
- Boiling point: 110 °C
- Ignition temperature: not applicable
- Explosive limit: not applicable
- Viscosity kinematic: -
- Toxic, corrosive
- H-STATEMENT/EUH: H300+310+330;314 / P280;301+330 +331;302+352;304+340;305+351 +338;308 +310
- Test Type: -
- Results: -
- HS-CODE: 2811 11 00 - LGK: 6.1B
- Disposal: 23 - WGK: 2 - UN: 1790

932.116 *Hydrofluoric acid 40 % - Reag. ISO, Reag. Ph. Eur.*

Specification

Assay	≥ 40 %	Lithium (Li)	≤ 0.000002 %	Sulfite (SO_3)	≤ 0.0002 %
Residue on ignition (SO_4)	≤ 0.0005 %	Magnesium (Mg)	≤ 0.00002 %	Hexafluorosilic acid (H_2SiF_6)	≤ 0.005 %
Silver (Ag)	≤ 0.000002 %	Manganese (Mn)	≤ 0.000005 %		
Aluminium (Al)	≤ 0.000005 %	Molybdenum (Mo)	≤ 0.000005 %		
Arsenic (As)	≤ 0.000005 %	Sodium (Na)	≤ 0.00002 %		
Barium (Ba)	≤ 0.00001 %	Nickel (Ni)	≤ 0.000002 %		
Beryllium (Be)	≤ 0.000002 %	Lead (Pb)	≤ 0.000005 %		
Bismuth (Bi)	≤ 0.00001 %	Strontium (Sr)	≤ 0.000002 %		
Calcium (Ca)	≤ 0.00005 %	Titanium (Ti)	≤ 0.00001 %		
Cadmium (Cd)	≤ 0.000001 %	Thallium (Tl)	≤ 0.000005 %		
Cobalt (Co)	≤ 0.000002 %	Vanadium (V)	≤ 0.000005 %		
Chromium (Cr)	≤ 0.000002 %	Zinc (Zn)	≤ 0.000005 %		
Copper (Cu)	≤ 0.000002 %	Zirconium (Zr)	≤ 0.00001 %		
Iron (Fe)	≤ 0.00002 %	Chloride (Cl)	≤ 0.0001 %		
Germanium (Ge)	≤ 0.000005 %	Phosphate (PO_4)	≤ 0.00005 %		
Potassium (K)	≤ 0.00001 %	Sulfate (SO_4)	≤ 0.0002 %		

catalogue number	packing specs	volume in pack	pack in box
932.116.2500	plastic bottle	2.5 l	4 pieces

Iodine sublimated



- I_2
- CAS-No: 7553-56-2
- EC-No: 231-442-4
- EC index No: 053-001-00-3
- M= 253.8 g/mol
- Vapour Pressure: 0.31 hPa (25°C)
- Specific density: 4.93 g/cm³ (20°C)
- Flash point: -
- Solubility in H_2O 0.3 g/l (20°C)
- pH value: 5.4 (H_2O) (saturated solution)
- Melting point: 114°C
- Bulk density: 2100 kg/m³
- Boiling point: 184°C (1013 hPa)
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- harmful , dangerous for the environment
- H-STATEMENT/EUH: H332;312;400 / P280; 271;312;304+340;363
- Test Type: LD50 Oral rat ; LD50 Dermal rabbit
- Results: 315 mg/kg ; 1425 mg/kg
- HS-CODE: 2801 20 00
- LGK: 6.1 C ➤ Disposal: 22
- WGK: 1 ➤ UN: -

935.016 *Iodine sublimated* - *For analysis ACS, ISO, Reag. Ph Eur*

Specification

Assay	≥ 99.8 %	Bromide and Chlorine (as Cl)	≤ 0.005 %
Identity	passes test	Residue	≤ 0.01 %

catalogue number	packing specs	weight in pack	pack in box
935.016.0101	glass bottle	100 g	6 pieces
935.016.0501	glass bottle	500 g	6 pieces

Iron (II) sulfate heptahydrate

- $FeSO_4*7H_2O$
- CAS-No: 7782-63-0
- EC-No: 231-753-5
- EC index No: 026-003-01-4
- M= 278.02 g/mol
- Vapour Pressure: -
- Specific density: 1.89 g/cm³ (20°C)
- Flash point: Not applicable
- Solubility in H_2O 400 g/l (20°C)
- pH value: 3 - 4 (50 g/l, H_2O, 20°C)
- Melting point: >60°C
- Bulk density: 600 kg/m³
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- Harmful, Irritant
- H-STATEMENT/EUH: H302;315;319 / P302+352;305+351+338
- Test Type: LD50 Oral rat
- Results: 319 mg/kg
- HS-CODE: 2833 29 80
- LGK: 10 - 13 ➤ Disposal: 14
- WGK: 1 ➤ UN: -

936.026 *Iron (II) sulfate heptahydrate* - *For analysis ACS, ISO, Reag. Ph Eur*

Specification

Assay	99.5 - 102.0 %	Cr (Chromium)	≤ 0.005 %
Identity	passes test	Cu (Copper)	≤ 0.001 %
Appearance of solution	passes test	Fe III (Iron III)	≤ 0.2 %
pH-value (5 %)	3.0 - 4.0	Mg (Magnesium)	≤ 0.005 %
Chloride (Cl)	≤ 0.01 %	Mn (Manganese)	≤ 0.05 %
Heavy metals as Pb	≤ 0.005 %	Na (Sodium)	≤ 0.02 %
As (Arsenic)	≤ 0.0002 %	Ni (Nickel)	≤ 0.005 %
Ca (Calcium)	≤ 0.005 %	Pb (Lead)	≤ 0.0002 %
Co (Cobalt)	≤ 0.002 %	Zn (Zinc)	≤ 0.0025 %

catalogue number	packing specs	weight in pack	pack in box
936.026.0100	plastic bottle	100 g	6 pieces
936.026.0500	plastic bottle	500 g	6 pieces
936.026.1000	plastic bottle	1 kg	6 pieces
936.026.5000	plastic bottle	5 kg	1 piece

Iron (III) chloride hexahydrate



- Cl_3Fe*6H_2O
- CAS-No: 10025-77-1
- EC-No: 231-729-4
- EC index No: -
- M= 270.33 g/mol
- Vapour Pressure: 1 hPa at (194°C)
- Specific density: 1.82 g/cm³
- Flash point: Not applicable
- Solubility in H_2O 920 g/l (20°C)
- pH value: 1.8 (10 g/l, H_2O, 25°C)
- Melting point: 37°C
- Bulk density: 600 - 1200 kg/m³
- Boiling point: 280°C
- Ignition temperature: not applicable
- Explosive limit: not applicable
- Viscosity kinematic: -
- Harmful, Irritant
- H-STATEMENT/EUH: H302;315;318 / P280;302+352;305+351+338;313
- Test Type: LD50 Oral rat
- Results: 1872 mg/kg
- HS-CODE: 2827 39 20
- LGK: 10 - 13 ➤ Disposal: 14
- WGK: 1 ➤ UN: -

936.016 *Iron (III) chloride hexahydrate* - *For analysis ACS, Reag. Ph Eur*

Specification

Assay	97.0 - 102.0 %	Ca (Calcium)	≤ 0.01 %
Identity	passes test	Cu (Copper)	≤ 0.003 %
Insoluble matter	≤ 0.01 %	Fe II (Iron II)	≤ 0.002 %
Free chlorine	passes test	K (Potassium)	≤ 0.005 %
Acidic substances	passes test	Mg (Magnesium)	≤ 0.005 %
Nitrate (NO_3)	≤ 0.01 %	Na (Sodium)	≤ 0.05 %
Sulphate (SO_4)	≤ 0.01 %	Zn (Zinc)	≤ 0.003 %

catalogue number	packing specs	weight in pack	pack in box
936.016.0250	plastic bottle	250 g	6 pieces
936.016.0500	plastic bottle	500 g	6 pieces
936.016.1000	plastic bottle	1 kg	6 pieces

Isooctane



- C_8H_{18}
- CAS-No: 540-84-1
- EC-No: 208-759-1
- EC index No: 601-009-00-8
- M= 114.23 g/mol
- Vapour Pressure: 51 hPa (20°C)
- Specific density: 0.69 g/cm³ (20°C)
- Flash point: -12°C
- Solubility in H_2O 0.56 mg/l at 25°C
- pH value: neutral
- Melting point: -107°C
- Bulk density: -
- Boiling point: 99°C (1013 hPa)
- Ignition temperature: 410°C
- Explosive limit: 1 - 6 %(V)
- Viscosity kinematic: -
- Flammable, Harmful, Dangerous for the environment
- H-STATEMENT/EUH: H225;304;315;336; 410 / P210;233;240;301+310;302+352;304+340; 331;403;235
- Test Type: LD50 Oral rat , LD50 Dermal rabbit
- Results: > 2500 mg/kg ; > 2000 mg/kg
- HS-CODE: 2901 10 00 - LGK: 3
- Disposal: 1 - WGK: 2 - UN: 1262

936.036 *Isooctane* - *For analysis ACS, Reag. Ph Eur.*

Specification

Purity (GC)	≥ 99.5 %	Ba (Barium)	≤ 0.00001 %	Sn (Tin)	≤ 0.00001 %
Identity (IR)	passes test	Ca (Calcium)	≤ 0.00005 %	Zn (Zinc)	≤ 0.00001 %
Colour	≤ 10 Hazen	Cd (Cadmium)	≤ 0.000005 %	Evaporation residue	≤ 0.001 %
Acidity	≤ 0.0003 meq/g	Co (Cobalt)	≤ 0.000002 %	Water	≤ 0.01 %
Refractive index (n 20/D)	1.391 - 1.393	Cr (Chromium)	≤ 0.000002 %		
Boiling range (98-100°C)	≤ 95 % (v/v)	Cu (Copper)	≤ 0.000002 %		
Sulfur compounds (as S)	≤ 0.005 %	Fe (Iron)	≤ 0.00001 %		
Readily carbonizable substances	passes test	Mg (Magnesium)	≤ 0.00001 %		
Transmission (250nm - 420nm)	≥ 98 %	Mn (Manganese)	≤ 0.000002 %		
Al (Aluminium)	≤ 0.00005 %	Ni (Nickel)	≤ 0.000002 %		
B (Boron)	≤ 0.000002 %	Pb (Lead)	≤ 0.00001 %		

catalogue number	packing specs	volume in pack	pack in box
936.036.2501	glass bottle	2.5 l	4 pieces

936.037 *Isooctane* - *For liquid chromatography*

Specification

Purity (GC)	≥ 99.0 %	Alkalinity	≤ 0.0002 meq/g
Identity (IR)	passes test	Transmission (at 210 nm)	≥ 50 %
Evaporation residue	≤ 0.0002 %	Transmission (at 220 nm)	≥ 80 %
Water	≤ 0.01 %	Transmission (at 245 nm)	≥ 98 %
Acidity	≤ 0.0002 meq/g	Filtered by 0.2 µm filter	

catalogue number	packing specs	volume in pack	pack in box
936.037.2501	glass bottle	2.5 l	4 pieces

(S)-Lactic acid about 90 %

- -
- CAS-No: 79-33-4
- EC-No: -
- EC index No: -
- M= -
- Vapor Pressure: 0.1 hPa (25°C)
- Specific density: 1.21 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O soluble at 20°C
- pH value 2.8 (10 g/l, H_2O, 20°C)
- Melting point: 18°C
- Bulk density: -
- Boiling point: 122°C (20 hPa)
- Ignition temperature: not combustible
- Explosive limit: -
- Viscosity kinematic: -
- Irritant
- H-STATEMENT/EUH: H315;318 / P280;302+352;305+351+338;313
- Test Type: -
- Results: -
- HS-CODE: 2918 11 00
- LGK: 10-13
- Disposal: 3
- WGK: 1
- UN: -

942.013 *(S)-Lactic acid about 90 % - Ph Eur, BP, E 270*

Specification

Assay	88.0 - 92.0 %	Density (at 20°C/68°F)	1.20 - 1.21	Colour (fresh solution)	6 Hazen
Assay (stereochemical purity)	≥ 97.0 %	Chloride (Cl)	≤ 0.001 %	Colour after heating (at 200°C, 2h)	≤ 20
Identity (IR-Spectrum)	passes test	Sulphate	≤ 0.001 %	Volatile fatty Acid	passes test
Identity (pH)	passes test	Heavy Metals (as Pb)	≤ 0.0005 %	Readily carbonizable substances	passes test
Identity (Density)	passes test	As (Arsenic)	≤ 0.0001 %		
Identity (Lactat)	passes test	Ca (Calcium)	≤ 0.0005 %		
Identity (Assay)	passes test	Fe (Iron)	≤ 0.0005 %		
Appearance	Transparent, syrupy and hygroscopic liquid	Hg (Mercury)	≤ 0.0001 %		
		Pb (Lead)	≤ 0.00005 %		
Ether insoluble substances	passes test	Sugars and other reducing substances	passes test		
Citric, oxalic, tartaric and phosphoric acids	passes test	Sulfated ash	≤ 0.005 %		

catalogue number	packing specs	volume in pack	pack in box
942.013.1000	plastic bottle	1 l	6 pieces
942.013.2500	plastic bottle	2.5 l	4 pieces

Light green SF yellowish

- C.I NO: 42095
- $C_{37}H_{34}N_2Na_2O_9S_3$
- CAS-No: 5141-20-8
- EC-No: 225-906-5
- EC index No: -
- M= 792.86 g/mol
- Soluble in H_2O Appreciable (> 10 %)
- Colour: Dark violet powder
- Odour: -
- pH value Not applicable
- Melting point: 288°C
- -
- H-STATEMENT/EUH: -
- HS-CODE: 3204.1900
- LGK: 10-13

943.D01 *Light green SF yellowish - (C.I. 42095) for microscopy*

Specification

Appearance	Dark violet powder	Loss on drying (110°C)	≤ 12 %
Dye content	≥ 65 %	Solubility (Turbidity 1 mg/ml, H_2O)	Clear
Absorption maxima in water	629 - 634 nm		

catalogue number	packing specs	weight in pack	pack in box
943.D01.0010	plastic bottle	10 g	6 pieces
943.D01.0025	plastic bottle	25 g	6 pieces
943.D01.0050	plastic bottle	50 g	6 pieces
943.D01.0100	plastic bottle	100 g	6 pieces

Magnesium sulfate heptahydrate

- $MgO_4S*7\ H_2O$
- CAS-No: 10034-99-8
- EC-No: 231-298-2
- EC index No: -
- M= 246.48 g/mol
- Vapor Pressure: < 0.13 hPa at 20°C
- Specific density: 1.68 g/cm³ (20°C)
- Flash point: Not applicable
- Soluble in H_2O 710 g/l (20°C)
- pH value 5.0 - 8.0 (50 g/l, H_2O, 25°C)
- Melting point: -
- Bulk density: 900 kg/m³
- Boiling point: -
- Ignition temperature: -
- Explosive limit: not applicable
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: -
- Results: -
- HS-CODE: 2833 21 00
- LGK: 10 - 13
- Disposal: 14
- WGK: 1 ➤ UN: -

946.016 *Magnesium sulfate heptahydrate* - *For analysis ACS,Reag. Ph Eur*

Specification

Assay (complexometric)	99.5 %	Nitrate (NO_3)	≤ 0.002 %	Pb (Lead)	≤ 0.0001 %
Assay (complexometric; calculated on dried substance)	99.0 - 100.5 %	Heavy metals (as Pb)	≤ 0.0005 %	Sr (Strontium)	≤ 0.005 %
Identification	passes test	As (Arsenic)	≤ 0.0002 %	Loss on drying (400°C)	48.0 - 52.0 %
Appearance of solution	passes test	Ca (Calcium)	≤ 0.005 %		
Insoluble matter	0.005 %	Cu (Copper)	≤ 0.0001 %		
Acidity or alkalinity	passes test	Fe (Iron)	≤ 0.0001 %		
pH-value (5 %; water)	5.0 - 8.0	K (Potassium)	≤ 0.001 %		
Chloride (Cl)	≤ 0.0003 %	Mn (Manganese)	≤ 0.0005 %		
Total nitrogen (N)	≤ 0.002 %	Na (Sodium)	≤ 0.001 %		
		NH_4 (Ammonium)	≤ 0.002 %		

catalogue number	packing specs	weight in pack	pack in box
946.016.0500	plastic bottle	500 g	6 pieces
946.016.1000	plastic bottle	1 kg	6 pieces

Malachite green



- C.I NO: 42000
- $C_{52}H_{54}N_4O_{12}$
- CAS-No: 2437-29-8
- EC-No: 219-441-7
- EC index No: 602-096-00-5
- M= 927.01 g/mol
- Soluble in H_2O Soluble in water
- Colour: Green crystalline powder
- Odour: Odorless
- pH value Not applicable
- Melting point: 164°C
- Harmful, Dangerous for the environment
- H-STATEMENT/EUH: H318;302;410 / P280; 273;264;270;301+312;391;305+351+338;501
- HS-CODE: 3204.1300
- LGK: 6.1C
- UN: 2811

946.D01 *Malachite green* - *(C.I. 42000) for microscopy*

Specification

Appearance	Green crystalline powder	Ratio of λ max.P ± 15nm	1.00 - 1.15
Absorption max.	616 - 620 nm	Loss on drying (at 110 °C)	≤ 7 %
Absorptivity A at λmax.	≥ 1450		

catalogue number	packing specs	weight in pack	pack in box
946.D01.0010	plastic bottle	10 g	6 pieces
946.D01.0025	plastic bottle	25 g	6 pieces
946.D01.0050	plastic bottle	50 g	6 pieces
946.D01.0100	plastic bottle	100 g	6 pieces

May and Grunwald's stain



- C.I NO: -
- -
- CAS-No: -
- EC-No: -
- EC index No: -
- M= -
- Soluble in H_2O Soluble in water
- Colour: Dark green powder
- Odour: Alcohol odor
- pH value Not applicable
- Melting point: -
- Irritant
- H-STATEMENT/EUH: H302;319 / P280; 264;270;301+312;305+351+338;337+313;501
- HS-CODE: 3204.1900
- LGK: 10-13

946.D02 *May and Grunwald's stain* - *For microscopy*

Specification

Appearance	A dark green powder	Specific absorptivity A 1 %/1 cm at λ1	1100 - 1300
Loss on drying (at 105 °C)	≤ 10 %	Specific absorptivity A 1 %/1 cm at λ2	600 - 800
Absorbance maxima at λ1	648 - 653 nm		
Absorbance maxima at λ2	520 - 525 nm		

catalogue number	packing specs	weight in pack	pack in box
946.D02.0010	plastic bottle	10 g	6 pieces
946.D02.0025	plastic bottle	25 g	6 pieces
946.D02.0050	plastic bottle	50 g	6 pieces
946.D02.0100	plastic bottle	100 g	6 pieces

Mercury(II) chloride



- Cl_2Hg
- CAS-No: 7487-94-7
- EC-No: 231-299-8
- EC index No: -
- M= 271.5 g/mol
- Vapor Pressure: 0.0001 hPa (20°C)
- Specific density: 5.44 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 74 g/l (20°C)
- pH value 3.2 (15 g/l, H_2O)
- Melting point: 277°C
- Bulk density: 2000 kg/m³
- Boiling point: 302°C (1013 hPa) (sublimed)
- Ignition temperature: not applicable
- Explosive limit: not applicable
- Viscosity kinematic: -
- Very toxic , Dangerous for the environment
- H-STATEMENT/EUH: H300;314;341;361f; 372;410 / P273;280;301+330+331;305+ 351+338;308+310
- Test Type: LD 50 oral rat
- Results: 1 mg/kg
- HS-CODE: 2852 10 00 ➤ LGK: 6.1 B
- Disposal: 20 ➤ WGK: 3 ➤ UN: 1624

947.026 *Mercury(II) chloride* - *For analysis reag. Ph Eur, ACS*

Specification

Assay (complexometric; on dried subs.)	99.5 - 100.5 %	Acidity or alkalinity	passes test
Identity	passes test	Mercury(I)-chloride	passes test
Appearance of solution	passes test	Fe (Iron)	≤ 0.002 %
Solution in Ether	passes test	Residue after reduction with formic acid	≤ 0.02 %
		Loss on drying (24 hrs. in Vacuum)	≤ 1.0 %

catalogue number	packing specs	weight in pack	pack in box
947.026.0050	plastic bottle	50 g	6 pieces
947.026.0250	plastic bottle	250 g	6 pieces
947.026.0500	plastic bottle	500 g	6 pieces
947.026.1000	plastic bottle	1 kg	6 pieces

Mercury (II) sulfate



- $HgSO_4$
- CAS-No: 7783-35-9
- EC-No: 231-992-5
- EC index No: 080-002-00-6
- M= 296.65 g/mol
- Vapor Pressure: -
- Specific density: 6.47 g/cm³ (20°C)
- Flash point: -
- Soluble in H_2O at 20°C (decomposition)
- pH value 1 (50 g/l, H_2O, 20°C)
- Melting point: (decomposition)
- Bulk density: 670 kg/m³
- Boiling point: (decomposition)
- Ignition temperature: >450°C
- Explosive limit: -
- Viscosity kinematic: -
- Very toxic, dangerous for the environment
- H-STATEMENT/EUH: H300+310+330;373; 410 /P280;273;302+352;304+340;308+310
- Test Type: LD50 oral rat; LD50 dermal rat
- Results: 57 mg/kg ; 625 mg/kg
- HS-CODE: 2852 10 00
- LGK: 6.1 B ➤ Disposal: 20
- WGK: 3 ➤ UN: 1645

947.036 *Mercury (II) sulfate* - *For analysis ACS*

Specification

Assay (complexometric)	≥ 99.0 %	Mercury (I) (as Hg)	≤ 0.15 %
Chloride (Cl)	≤ 0.003 %	Magnesium	≤ 0.005 %
Nitrate (NO_3)	≤ 0.005 %	Sodium	≤ 0.005 %
Ca (Calcium)	≤ 0.005 %	Residue after reduction	≤ 0.02 %
Fe (Iron)	≤ 0.005 %		

catalogue number	packing specs	weight in pack	pack in box
947.036.0050	plastic bottle	50 g	6 pieces
947.036.0250	plastic bottle	250 g	6 pieces

Methanol



- CH_4O
- CAS-No: 67-56-1
- EC-No: 200-659-6
- EC index No: 603-001-00-X
- M= 32.04 g/mol
- Vapor Pressure: 128 hPa (20°C)
- Specific density: 0.792 g/cm³ (20°C)
- Flash point: 10°C
- Soluble in H_2O soluble at 20°C
- pH value -
- Melting point: -98°C
- Bulk density: -
- Boiling point: 64.5°C (1013 hPa)
- Ignition temperature: 455°C
- Explosive limit: 5.5 - 44 %(V)
- Viscosity kinematic: -
- Flammable, Toxic
- H-STATEMENT/EUH: H225;301+311+331; 370 / P210;240;280;302+352;304+340; 308+ 310;403+233
- Test Type: LD50 Dermal Rabbit
- Results: 15800 mg/kg
- HS-CODE: 2905 11 00 - LGK: 3
- Disposal: 1 - WGK: 1 - UN: 1230

947.043 *Methanol* - *Ph Eur, BP, JPE, NF*

Specification

Assay (GC)	≥ 99.7 %	Chloride (Cl)	≤ 0.0001 %	Residual solvents	passes test
Refractive index (n 20/D)	1.328 - 1.330	Sulfate (SO_4)	≤ 0.0005 %		
Non-volatile matter	≤ 0.001 %	Reaction against H_2SO_4	passes test		
Water (Karl Fischer)	≤ 0.10 %	Reducing impurities	passes test		
Acidity or alkalinity	passes test	Aldehydes, ketones (as CH_3COCH_3)	≤ 0.003 %		
Free acid (as HCOOH)	≤ 0.003 %	Acetone (GC)	≤ 0.001 %		
Free alkali (as NH_3)	≤ 0.0003 %	UV-absorption	passes test		
Iron (Fe)	≤ 0.0001 %	Related substance (GC)	passes test		
Identity (IR)	passes test	Appearance	passes test		

catalogue number	packing specs	volume in pack	pack in box
947.043.2500	plastic bottle	2.5 l	4 pieces

947.046 *Methanol* - *ACS Reagent, Reag. ISO, Reag. Ph. Eur.*

Specification

Purity (GC area %)	99.8 - 100 %	Chromium (ICP)	≤ 0.000002 %	Sulfate (SO_4)	≤ 0.0001 %
Appearance	Colorless liquid	Copper (ICP)	≤ 0.000001 %	Substances dark by H_2SO_4	passes test
Solubility (turbidity)	Mixable with H_2O	Iron (ICP)	≤ 0.00001 %	Carbonyl compounds	≤ 0.005 %
Water (coulometr.)	≤ 0.05 %	Potassium (ICP)	≤ 0.00005 %	Free alkali (as NH_3)	≤ 0.00005 %
Residue (evaporation)	≤ 0.0005 %	Color (APHA)	≤ 10	Acetone	≤ 0.001 %
Reducing substances (as O)	≤ 0.00025 %	Lithium (ICP)	≤ 0.00001 %	Ethanol	≤ 0.1 %
Aldehydes (AS CH_3CH)	≤ 0.001 %	Magnesium (ICP)	≤ 0.00001 %		
Ketones (AS CH_3COCH_3)	≤ 0.001 %	Manganese (ICP)	≤ 0.000001 %		
Formaldehyde	≤ 0.001 %	Molybdenum (ICP)	≤ 0.00001 %		
Acetaldehyde	≤ 0.001 %	Sodium (ICP)	≤ 0.00005 %		
Aluminium (ICP)	≤ 0.00005 %	Nickel (ICP)	≤ 0.000002 %		
Barium (ICP)	≤ 0.00001 %	Lead (ICP)	≤ 0.000002 %		
Bismuth (ICP)	≤ 0.00001 %	Tin (ICP)	≤ 0.00001 %		
Boron (ICP)	≤ 0.000002 %	Strontium (ICP)	≤ 0.00001 %		
Calcium (ICP)	≤ 0.00005 %	Zinc (ICP)	≤ 0.00001 %		
Cadmium (ICP)	≤ 0.000005 %	Free acid (as HCOOH)	≤ 0.002 %		
Cobalt (ICP)	≤ 0.000002 %	Chloride (Cl)	≤ 0.00005 %		

catalogue number	packing specs	volume in pack	pack in box
947.046.2500	plastic bottle	2.5 l	4 pieces

947.047 *Methanol* - *For liquid chromatography*

Specification

Purity (GC)	≥ 99.9 %	Transmission (at 225 nm)	≥ 50 %		
Identity (IR)	passes test	Transmission (at 240 nm)	≥ 80 %		
Evaporation residue	≤ 0.0003 %	Transmission (at 265 nm)	≥ 98 %		
Water	≤ 0.03 %	Fluorescence 254 nm	≤ 0.0000001 %		
Colour	≤ 10 Hazen	Fluorescence 365 nm	≤ 0.0000001 %		
Acidity	≤ 0.0002 meq/g	Filtered by 0.2 µm filter.			
Alkalinity	≤ 0.0002 meq/g				

catalogue number	packing specs	volume in pack	pack in box
947.047.2501	glass bottle	2.5 l	4 pieces

947.048 *Methanol* - *LC-MS*

Specification

Assay (GC)	≥ 99.90 %	Chromium (Cr)	≤ 0.000002 %	Absorbance at 230 nm	≤ 0.125 AU
Appearance	Clear colorless liquid	Copper (Cu)	≤ 0.000001 %	Absorbance at 260 nm	≤ 0.009 AU
Color (APHA)	≤ 10	Iron (Fe)	≤ 0.00001 %	F254 nm (as Quinine)	≤ 0.0000001 %
Residue after evaporation	≤ 0.0005 %	Potassium (K)	≤ 0.00001 %	F365 nm (as Quinine)	≤ 0.0000001 %
Water (KF)	≤ 0.02 %	Magnesium (Mg)	≤ 0.00001 %	Grad. elution H.Peak at 254 nm	≤ 1 mAU
Acidity (as HCOOH)	≤ 0.001 %	Manganese (Mn)	≤ 0.000001 %	Suitability for the LC-MS	passes test
Alkalinity (as NH_3)	≤ 0.0005 %	Sodium (Na)	≤ 0.00001 %		
Silver (Ag)	≤ 0.00001 %	Nickel (Ni)	≤ 0.000002 %		
Aluminium (Al)	≤ 0.00005 %	Lead (Pb)	≤ 0.000002 %		
Barium (Ba)	≤ 0.00001 %	Tin (Sn)	≤ 0.00001 %		
Calcium (Ca)	≤ 0.00001 %	Zinc (Zn)	≤ 0.00001 %		
Cadmium (Cd)	≤ 0.000005 %	Absorbance at 210 nm	≤ 0.523 AU		
Cobalt (Co)	≤ 0.000002 %	Absorbance at 220 nm	≤ 0.301 AU		

catalogue number	packing specs	volume in pack	pack in box
947.048.2501	glass bottle	2.5 l	4 pieces

Methanol with 0.1 % Trifluoroacetic acid



- -
- CAS-No: -
- EC-No: -
- EC index No: -
- M= -
- Vapor Pressure: -
- Specific density: ≈ 0.792 g/cm³
- Flash point: 10°C
- Soluble in H_2O soluble at 20 °C
- pH value -
- Melting point: ≈ -98°C
- Bulk density: -
- Boiling point: ≈ 64.5°C (1013 hPa)
- Ignition temperature: 455°C
- Explosive limit: 5.5 - 44 %(V)
- Viscosity kinematic: -
- Flammable, Toxic
- H-STATEMENT/EUH: H225;301+311+331;370 / P210;240;280;302+352;304+340;308+310;403+233
- Test Type:-
- Results: -
- HS-CODE: 2905 11 00 ➤ LGK: 3
- Disposal: - ➤ WGK: 1 ➤ UN: 1230

947.068 *Methanol with 0.1 % Trifluoroacetic acid* - *LC-MS*

Specification

Appearance	Clear colorless, liquid	T254 nm	≥ 90 %	Filtered through 0.2 µm
Assay (GC, MeOH basis)	≥ 99.5 %	T230 nm	≥ 35 %	
Color (APHA, Pt-Co)	≤ 10	T210 nm	≥ 5 %	
Ca (Calcium)	≤ 0.00005 %	A210 nm	≤ 1.301 AU	
K (Potassium)	≤ 0.00005 %	A230 nm	≤ 0.455 AU	
Mg (Magnesium)	≤ 0.00005 %	A254 nm	≤ 0.045 AU	
Na (Sodium)	≤ 0.0002 %	Grad. Elution H.Peak at 254 nm	≤ 0.01 AU	
LC-MS suitability test	passes test	Trace elements analysis	passes test	

catalogue number	packing specs	volume in pack	pack in box
947.068.2501	glass bottle	2.5 l	4 pieces

Methyl blue



- C.I NO: 42780
- $C_{37}H_{27}N_3Na_2O_9S_3$
- CAS-No: 28983-56-4
- EC-No: 249-352-9
- EC index No: -
- M= 799.81 g/mol
- Soluble in H_2O Soluble in water
- Colour: Bluish black powder
- Odour: Odorless
- pH value Not applicable
- Melting point: -
- Harmful
- H-STATEMENT/EUH: H302;319;315;335 / P280;271;261;264;270;302+352;301+312;332+313;305+351+338;304+340;363;403+233;405;501
- HS-CODE: 3204.9000
- LGK: 10-13

947.D01 *Methyl blue* - *(C.I. 42780) For microscopy*

Specification

Appearance	Dark blue to dark brown powder or crystals	Loss on drying (110°C)	≤ 7 %	
Absorption maxima in 0.005M, HCl	595 - 605 nm	Suitability for microscopy	passes test	
Specific absorptivity in 0.005M, HCl	675 - 1125			

catalogue number	packing specs	weight in pack	pack in box
947.D01.0010	plastic bottle	10 g	6 pieces
947.D01.0025	plastic bottle	25 g	6 pieces
947.D01.0050	plastic bottle	50 g	6 pieces
947.D01.0100	plastic bottle	100 g	6 pieces

Methyl green



- C.I NO: 42590
- $C_{27}H_{35}Cl_2N_3 * ZnCl_2$
- CAS-No: 7114-03-6
- EC-No: -
- EC index No: -
- M= 608.78 g/mol
- Soluble in H_2O Soluble in water
- Colour: Orange yellow crystalline
- Odour: -
- pH value Not applicable
- Melting point: > 300°C
- Irritant
- H-STATEMENT/EUH: H319;315;335;410 / P264;273;312;391;304+340;332+313;405
- HS-CODE: 3204.1300
- LGK: 8A
- UN: 3077

947.D02 *Methyl green* - *(C.I. 42590) microscopical Staining*

Specification

Appearance	Orange yellow crstalline powder	Zinc (Zn)	7 - 11 %
Dye content (by titanometry)	≥ 65 %	Absorption maxima in water	630 - 635 nm

catalogue number	packing specs	weight in pack	pack in box
947.D02.0010	plastic bottle	10 g	6 pieces
947.D02.0025	plastic bottle	25 g	6 pieces
947.D02.0050	plastic bottle	50 g	6 pieces
947.D02.0100	plastic bottle	100 g	6 pieces

Methyl violet



- C.I NO: 42535
- -
- CAS-No: 8004-87-3
- EC-No: -
- EC index No: -
- M= -
- Soluble in H_2O Soluble in water
- Colour: Dark green crystalline
- Odour: -
- pH value Not applicable
- Melting point: 137°C
- Harmful
- H-STATEMENT/EUH: H318;302;410 / P280; 273;264;270;301+312;391;305+351+338;501
- HS-CODE: 3204.1300
- LGK: - ➤ UN: 3077

947.D03 *Methyl violet* - *(C.I. 42535) for microscopy*

Specification

Appearance	Dark green crystalline powder	Ratio λ max.P ± 15nm	1.060 - 1.190
Absorption maxima in ethanol	583 - 587 nm	Loss on drying (At 110°C)	≤ 10 %
Absorptivity (1 % 1 cm, λ max.)	≥ 1600		

catalogue number	packing specs	weight in pack	pack in box
947.D03.0010	plastic bottle	10 g	6 pieces
947.D03.0025	plastic bottle	25 g	6 pieces
947.D03.0050	plastic bottle	50 g	6 pieces
947.D03.0100	plastic bottle	100 g	6 pieces

Methylene blue



- C.I NO: 52015
- $C_{16}H_{18}ClN_3S * H_2O$
- CAS-No: 122965-43-9
- EC-No: 200-515-2
- EC index No: -
- M= 319.86 g/mol
- Soluble in H_2O Soluble in water
- Colour: Dark green
- Odour: Odorless
- pH value Not applicable
- Melting point: 190°C
- Harmful
- H-STATEMENT/EUH: H302 / P264; 270;301+312;501
- HS-CODE: 3204 1300
- LGK: 10 - 13

947.D04 *Methylene blue* - *(C.I. 52015) for microscopy*

Specification

Appearance	A dark green colored powder	Specific absorptivity at absorb. max 0.003g/l in ethanol	2250 - 2750
Dye content	about 82 %	Loss on drying (110°C; 1hr)	10 - 15 %
Absorption maxima in %50 ethanol	660 - 665 nm		

catalogue number	packing specs	weight in pack	pack in box
947.D04.0010	plastic bottle	10 g	6 pieces
947.D04.0025	plastic bottle	25 g	6 pieces
947.D04.0050	plastic bottle	50 g	6 pieces
947.D04.0100	plastic bottle	100 g	6 pieces

947.D05 *Methylene blue* - *(C.I. 52015) AR for microscopy*

Specification

Appearance	A dark green coloured powder	Iron (Fe)	≤ 0.01 %
Assay	95.0 - 101.0 %	Lead (Pb)	≤ 0.001 %
Identity	passes test	Zinc (Zn)	≤ 0.001 %
Solubility	passes test	Sulphated ash (at 600°C)	≤ 0.25 %
Methanol insoluble substances	≤ 1.0 %	Loss on drying(105°C,18 hrs)	8.0 - 22.0 %
Related substances	passes test		

catalogue number	packing specs	weight in pack	pack in box
947.D05.0010	plastic bottle	10 g	6 pieces
947.D05.0025	plastic bottle	25 g	6 pieces
947.D05.0050	plastic bottle	50 g	6 pieces
947.D05.0100	plastic bottle	100 g	6 pieces

Methylthymol blue sodium salt

- $C_{37}H_{40}N_2Na_4O_{13}S$
- CAS-No: 1945-77-3
- EC-No: 217-743-3
- EC index No: -
- M= 844.76 g/mol
- Vapor Pressure: -
- Specific density: 1.1 g/cm^3 (20°C)
- Flash point: -
- Soluble in H_2O 460 g/l at 20°C
- pH value 6.2 (10 g/l, H^2O, 20°C)
- Melting point: -
- Bulk density: 570 kg/m^3
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: -
- Results: -
- HS-CODE: 2934 99 90
- LGK: 10-13
- Disposal: 3
- WGK: - ➤ UN: -

947.07P *Methylthymol blue sodium salt* - *metal indicator*

Specification

Identity (UV/VIS-Spectrum)	passes test	Spec. Absorptivity A 1 %/1cm (λ2max; 0.04 g/l; buffer pH 7.0; calc. on dried substance)	≥ 85
Absorption maximum λ1 (buffer pH 7.0)	602 - 606 nm	Loss on drying (50°C/ < 1 hPa; 3h)	≤ 7 %
Absorption maximum λ2 (buffer pH 7.0)	430 - 450 nm	Suitability as indicator (for metal titration)	passes test
Spec. Absorptivity A 1 %/1cm (λ1max; 0.04 g/l; buffer pH 7.0; calc. on dried substance)	≥ 60		

catalogue number	packing specs	weight in pack	pack in box
947.07P.0011	glass bottle	10 g	6 pieces
947.07P.0051	glass bottle	50 g	6 pieces

Nessler's reagent

- -
- CAS-No: 7783-33-7
- EC-No: -
- EC index No: -
- M= -
- Vapor Pressure: -
- Specific density: 1.16 g/cm³ (20°C)
- Flash point: -
- Soluble in H_2O soluble at 20°C
- pH value strongly alkaline at 20°C
- Melting point: -
- Bulk density: -
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- toxic, corrosive, dangerous for the environment
- H-STATEMENT/EUH: H290;301;314;332;373;412 / P273;280;301+330+331;302+352;305+351+338;308+310
- Test Type: -
- Results: -
- HS-CODE: 3822 00 00
- LGK: 6.1B
- Disposal: 20
- WGK: -
- UN: 2922

951.02P *Nessler's reagent -* *For ammonium salts*

Specification

Application test	passes test

catalogue number	packing specs	volume in pack	pack in box
951.02P.0501	glass bottle	500 ml	6 pieces
951.02P.1001	glass bottle	1 l	6 pieces

New fuchsin



- C.I NO: 42520
- $C_{22}H_{24}ClN_3$
- CAS-No: 3248-91-7
- EC-No: 221-831-7
- EC index No: -
- M= 365.91 g/mol
- Soluble in H_2O 10 g/l at 25°C
- Colour: Dark green powder
- Odour: Odorless
- pH value Not applicable
- Melting point: -
- Toxic
- H-STATEMENT/EUH: H319;315;335;351;410 / P261;273;281;305+351+338;501
- HS-CODE: 3204 1300
- LGK: 6.1A
- UN: 3077

951.D01 *New fuchsin -* *(C.I. 42520) for microscopy*

Specification

Appearance	Dark green powder	Assay	≥ 75 %
Absorption maxima (50 % ethanol)	548 - 558 nm		

catalogue number	packing specs	weight in pack	pack in box
951.D01.0010	plastic bottle	10 g	6 pieces
951.D01.0025	plastic bottle	25 g	6 pieces
951.D01.0050	plastic bottle	50 g	6 pieces
951.D01.0100	plastic bottle	100 g	6 pieces

Nigrosine alcohol soluble



- C.I NO: 50415
- -
- CAS-No: 11099-03-9
- EC-No: -
- EC index No: -
- M= -
- Soluble in H_2O Slightly soluble in
- Colour: Black
- Odour: Odorless
- pH value Not applicable
- Melting point: >275 °C
- Harmful
- H-STATEMENT/EUH: H373 / P260;314;501
- HS-CODE: 3204.1200
- LGK: -

951.D02 *Nigrosine alcohol soluble -* *(C.I. 50415) for microscopy*

Specification

Appearance	Black powder	Specific absorptivity	
Absorption maxima	about 560 nm	(A1 %,1 cm 0.025 g/L ethanol 50 %)	200-300

catalogue number	packing specs	weight in pack	pack in box
951.D02.0010	plastic bottle	10 g	6 pieces
951.D02.0025	plastic bottle	25 g	6 pieces
951.D02.0050	plastic bottle	50 g	6 pieces
951.D02.0100	plastic bottle	100 g	6 pieces

Nigrosine water soluble

- C.I NO: 50420
- -
- CAS-No: 8005-03-6
- EC-No: -
- EC index No: -
- M= -
- Soluble in H_2O Soluble in water
- Colour: Dark bluish black
- Odour: Odorless
- pH value Not applicable
- Melting point: -
- -
- H-STATEMENT/EUH: -
- HS-CODE: 3204.1200
- LGK: 10-13

951.D03 *Nigrosine water soluble* - *(C.I. 50420) for microscopy*

Specification

Appearance	Dark bluish black crystals	Specific absorptivity 1 %/1cm	
Absorption maxima in 50 % ethanol	570 - 580 nm	(λmax; 0.025g/l; ethanol 50 %)	≥ 200
		Loss on drying (at 110°C)	≤ 15 %

catalogue number	packing specs	weight in pack	pack in box
951.D03.0010	plastic bottle	10 g	6 pieces
951.D03.0025	plastic bottle	25 g	6 pieces
951.D03.0050	plastic bottle	50 g	6 pieces
951.D03.0100	plastic bottle	100 g	6 pieces

Nitric acid



- HNO_3
- CAS-No: 7697-37-2
- EC-No: -
- EC index No: -
- M= 63.01 g/mol
- Vapor Pressure: 50 hPa at 50 °C
- Specific density: 1.400 - 1.480 g/cm³ at 20°C
- Flash point: not applicable
- Soluble in H_2O completely miscible
- pH value acidic
- Melting point: -31 °C
- Bulk density: -
- Boiling point: 122 °C at 1.013 hPa
- Ignition temperature: -
- Explosive limit: not applicable
- Viscosity kinematic: -
- Oxidising, Corrosive
- H-STATEMENT/EUH: H272;290;314; EUH071 / P210;220;221;260;264;280;301+330+331;305+351 +338;308+310
- Test Type: -
- Results: -
- HS-CODE: 2808 00 00
- LGK: 5.1A
- Disposal: 12
- WGK: 1
- UN: 2031

951.016 *Nitric acid ≥ 65 % -* *For determinations with dithizone, Reag. ISO, Reag. Ph. Eur.*

Specification

Assay	≥ 65 %	Potassium (K)	≤ 0.000005 %	Sulfate (SO_4)	≤ 0.00005 %
Residue on ignition (SO_4)	≤ 0.0005 %	Lithium (Li)	≤ 0.000001 %	Suitable for determinations	
Silver (Ag)	≤ 0.000001 %	Magnesium (Mg)	≤ 0.00001 %	with dithizone	passes test
Arsenic (As)	≤ 0.000001 %	Manganese (Mn)	≤ 0.000001 %	Appearance	passes test
Aluminium (Al)	≤ 0.000005 %	Molybdenum (Mo)	≤ 0.000002 %	Residual solvents	passes test
Barium (Ba)	≤ 0.000001 %	Sodium(Na)	≤ 0.00005 %		
Beryllium (Be)	≤ 0.000001 %	Nickel (Ni)	≤ 0.000002 %		
Bismuth (Bi)	≤ 0.00001 %	Lead (Pb)	≤ 0.000001 %		
Calcium (Ca)	≤ 0.00001 %	Strontium (Sr)	≤ 0.000001 %		
Cadmium (Cd)	≤ 0.000001 %	Titanium (Ti)	≤ 0.00001 %		
Cobalt (Co)	≤ 0.000001 %	Thallium (Tl)	≤ 0.000005 %		
Chromium (Cr)	≤ 0.000002 %	Vanadium (V)	≤ 0.000001 %		
Copper (Cu)	≤ 0.000001 %	Zinc (Zn)	≤ 0.000005 %		
Iron (Fe)	≤ 0.00001 %	Zirconium (Zr)	≤ 0.00001 %		
Germanium (Ge)	≤ 0.000005 %	Chloride (Cl)	≤ 0.00005 %		
Mercury (Hg)	≤ 0.000001 %	Phosphate (PO_4)	≤ 0.00005 %		

catalogue number	packing specs	volume in pack	pack in box
951.016.2501	glass bottle	2.5 l	4 pieces

1-Octanesulfonic Acid Sodium Salt

- $C_8H_{17}NaO_3S$
- CAS-No: 5324-84-5
- EC-No: 226-195-4
- EC index No: -
- M= 216.27 g/mol
- Vapor Pressure: -
- Specific density: -
- Flash point: -
- Soluble in H_2O soluble at 20°C
- pH value 5.5 - 7.5 (100 g/l, H^2O, 20°C)
- Melting point: 300°C
- Bulk density: 345 kg/m³
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- Irritant
- H-STATEMENT/EUH: H315;319 / P302+352;305+351+338
- Test Type: -
- Results: -
- HS-CODE: 2904 10 00
- LGK: 10-13
- Disposal: 3
- WGK: -
- UN: -

954.01P *1-Octanesulfonic Acid Sodium Salt -* *For ion pair chromatography*

Specification

Assay (alkalimetric, calculated on dried substance)	≥ 99.0 %	UV-transmission (0.005 mol/l; 1 cm; Water) (at 220 nm)	≥ 90 %
Identity (IR-spectrum)	passes test	UV-transmission (0.005 mol/l; 1 cm; Water) (at 250 nm)	≥ 98 %
pH (100 g/l, water)	5.5 - 7.5	Loss on drying (120 °C; 4h; Vacuum)	≤ 2.0 %
UV-transmission (0.005 mol/l; 1 cm; Water) (at 200 nm)	≥ 70 %		

catalogue number	packing specs	weight in pack	pack in box
954.01P.0051	glass bottle	50 g	6 pieces
954.01P.0101	glass bottle	100 g	6 pieces

Octyl sulfate sodium salt

- $C_8H_{17}NaSO_4$
- CAS-No: 142-31-4
- EC-No: 205-535-5
- EC index No: -
- M= 232.26 g/mol
- Vapor Pressure: -
- Specific density: -
- Flash point: -
- Soluble in H_2O -
- pH value 6 - 8 (10 g/l, H_2O, 20°C)
- Melting point: 195°C (decomposition)
- Bulk density: 470 kg/m³
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 oral Rat
- Results: 3200 mg/kg
- HS-CODE: 2920 90 10
- LGK: 10-13
- Disposal: 3
- WGK: -
- UN: -

954.02P *Octyl sulfate sodium salt -* *For surfactant tests*

Specification

Assay (acidimetric; calculated on dried substance)	≥ 99 %	Heavy metals (as Pb)	≤ 0.004 %
Identity (IR-spectrum)	passes test	Free octanol (GC)	≤ 0.1 %
Chloride (Cl)	≤ 0.1 %	Sulfated ash	29.0 - 32.0 %
		Loss on drying (60°C; vacuum)	≤ 1

catalogue number	packing specs	weight in pack	pack in box
954.02P.0011	glass bottle	10 g	6 pieces
954.02P.0051	glass bottle	50 g	6 pieces

Oil red O

- C.I NO: 26125
- $C_{26}H_{24}N_4O$
- CAS-No: 1320-06-5
- EC-No: 215-295-3
- EC index No: -
- M= 408.5 g/mol
- Soluble in H_2O Soluble in water
- Colour: Brownish red powder
- Odour: -
- pH value Not applicable
- Melting point: 120°C
- -
- H-STATEMENT/EUH: -
- HS-CODE: 3204 1900
- LGK: 10-13

955.D01 *Oil red O -* *(C.I. 26125) for electrophoresis*

Specification

Appearance	Brownish red powder	Loss on drying 105°C	≤ 5 %
Absorption maxima (in chloroform)	528 - 534 nm		

catalogue number	packing specs	weight in pack	pack in box
955.D01.0010	plastic bottle	10 g	6 pieces
955.D01.0025	plastic bottle	25 g	6 pieces
955.D01.0050	plastic bottle	50 g	6 pieces
955.D01.0100	plastic bottle	100 g	6 pieces

Orange G indicator

- C.I NO: 16230
- $C_{16}H_{10}N_2Na_2O_7S_2$
- CAS-No: 1936-15-8
- EC-No: 217-705-6
- EC index No: -
- M= 452.37 g/mol
- Soluble in H_2O 70 g/l at 20°C
- Colour: Orange powder
- Odour: Odorless
- pH value Not applicable
- Melting point: -
- -
- H-STATEMENT/EUH: -
- HS-CODE: 3204 1200
- LGK: 10-13

957.D01 *Orange G indicator* - *(C.I. 16230) for microscopy*

Specification

Appearance	Orange powder	Absorptivity	≥ 380
Dye content	≥ 80 %	Loss on drying (110°C)	≤ 15 %
Absorption maxima in water	476 - 481 nm		

catalogue number	packing specs	weight in pack	pack in box
957.D01.0010	plastic bottle	10 g	6 pieces
957.D01.0025	plastic bottle	25 g	6 pieces
957.D01.0050	plastic bottle	50 g	6 pieces
957.D01.0100	plastic bottle	100 g	6 pieces

Orcein



- C.I NO: -
- -
- CAS-No: 1400-62-0
- EC-No: -
- EC index No: -
- M= -
- Soluble in H_2O Insoluble in water
- Colour: Black
- Odour: Odorless
- pH value Not applicable
- Melting point: -
- Harmful
- H-STATEMENT/EUH: H319 / P280; 264;305+351+338;337+313
- HS-CODE: 3203 0010
- LGK: 10-13

957.D02 *Orcein* - *For microscopy*

Specification

Appearance	Dark brown to black-purplish powder	Specific absorptivity	≥ 500
Absorption in NaOH 0.01 mol/L	575 - 582 nm	Loss on drying	≤ 7 %

catalogue number	packing specs	weight in pack	pack in box
957.D02.0010	plastic bottle	10 g	6 pieces
957.D02.0025	plastic bottle	25 g	6 pieces
957.D02.0050	plastic bottle	50 g	6 pieces
957.D02.0100	plastic bottle	100 g	6 pieces

Oxalic acid dihydrate



- $(COOH)_2*2H_2O$
- CAS-No: 6153-56-6
- EC-No: 205-634-3
- EC index No: 607-006-00-8
- M= 126.07 g/mol
- Vapor Pressure: 21 hPa (50°C)
- Specific density: 1.65 g/cm³ (20°C)
- Flash point: 157°C (decomposition)
- Soluble in H_2O >102 g/l (20°C)
- pH value 1 (10 g/l, H_2O) 20°C
- Melting point: 101°C
- Bulk density: -
- Boiling point: 149-160°C (1013 hPa) (decomp.)
- Ignition temperature: not applicable
- Explosive limit: -
- Viscosity kinematic: -
- Harmful
- H-STATEMENT/EUH: H302+312;318 / P280;302+352;305+351+338;313
- Test Type: -
- Results: -
- HS-CODE: 2917 11 00
- LGK: 8 A
- Disposal: 3
- WGK: 1
- UN: 3261

957.016 *Oxalic acid dihydrate* - *For analysis ACS, ISO, Reag. Ph Eur*

Specification

Assay (oxidimetric)	99.5 - 102.5 %	Heavy metals (as Pb)	≤ 0.0005 %
Insoluble matter	≤ 0.005 %	Ca (Calcium)	≤ 0.001 %
Chloride (Cl)	≤ 0.0005 %	Fe (Iron)	≤ 0.0002 %
Sulphate (SO_4)	≤ 0.005 %	Readily carbonisable substance	passes test
Total nitrogen (N)	≤ 0.001 %	Residue on ignition (as sulphate)	≤ 0.01 %

catalogue number	packing specs	weight in pack	pack in box
957.016.0100	plastic bottle	100 g	6 pieces
957.016.0500	plastic bottle	500 g	6 pieces
957.016.1000	plastic bottle	1 kg	6 pieces

Patent blue V (VF)

- C.I NO: 42045
- $C_{27}H_{31}N_2NaO_6S_2$
- CAS-No: 129-17-9
- EC-No: 204-934-1
- EC index No: -
- M= 566.67 g/mol
- Soluble in H_2O 10 g/l at 20°C
- Colour: Dark blue powder
- Odour: Odorless
- pH value Not applicable
- Melting point: 200°C
- -
- H-STATEMENT/EUH: -
- HS-CODE: 3204 1200
- LGK: -

958.D01 *Patent blue V (VF) - (C.I.42045) for microscopy*

Specification

Appearance	Dark blue powder	Absorption maxima	637 - 639 nm

catalogue number	packing specs	weight in pack	pack in box
958.D01.0010	plastic bottle	10 g	6 pieces
958.D01.0025	plastic bottle	25 g	6 pieces
958.D01.0050	plastic bottle	50 g	6 pieces
958.D01.0100	plastic bottle	100 g	6 pieces

n-Pentane



- $CH_3(CH_2)_3CH_3$
- CAS-No: 109-66-0
- EC-No: 203-692-4
- EC index No: 601-006-00-1
- M= 72.15 g/mol
- Vapor Pressure: 573 hPa (20°C)
- Specific density: 0,626 g/cm³ at 25°C
- Flash point: -49.0°C
- Soluble in H_2O 0.004 g/l at 20°C
- pH value -
- Melting point: -130°C
- Bulk density: -
- Boiling point: 35 - 36°C
- Ignition temperature: 260°C
- Explosive limit: 1.4 - 8 %(V)
- Viscosity kinematic: -
- Flammable, Harmful, Dangerous for the environment
- H-STATEMENT/EUH: H225;304;336;411 / P210;301+310;331;370+378;403+233
- Test Type: LD50 Oral Rat
- Results: > 2000 mg/kg
- HS-CODE: 2901 10 00
- LGK: 3
- Disposal: 1
- WGK: 2
- UN: 1265

959.012 *n-Pentane - Extra pure*

Specification

Purity (GC)	≥ 99.0 %	Non volatile matter	≤ 0.005 %
Identity (IR)	passes test	Readily carbonizable substances	passes test
Free acid (as CH_3COOH)	≤ 0.001 %		

catalogue number	packing specs	volume in pack	pack in box
959.012.2501	glass bottle	2.5 l	4 pieces

959.017 *n-Pentane - For liquid chromotography*

Specification

Purity (GC AREA %)	≥ 99.0 %	UV absorbance at 230 nm	≤ 0.02
Free acid (acetic acid)	≤ 0.0005 %	UV absorbance at 220 nm	≤ 0.07
Refractive index	1.356 - 1.360	UV absorbance at 210 nm	≤ 0.2
Water	≤ 0.005 %	UV absorbance at 200 nm	≤ 0.7
Residue Evaporation	≤ 0.0005 %	Fluorescence 254 nm (As quinine)	≤ 0.0000001 %
UV absorbance at 250 nm	≤ 0.004	Fluorescence 365 nm (As quinine)	≤ 0.0000001 %

catalogue number	packing specs	volume in pack	pack in box
959.017.2501	glass bottle	2.5 l	4 pieces

Pentane-1-sulfonic acid sodium salt

- $C_5H_{11}NaO_3S$
- CAS-No: 22767-49-3
- EC-No: 245-208-4
- EC index No: -
- M= 174.20 g/mol
- Vapor Pressure: -
- Specific density: -
- Flash point: -
- Soluble in H_2O -
- pH value 5.5 - 7.5 (100 g/l, H_2O, 20°C)
- Melting point: 300°C
- Bulk density: 390 kg/m³
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: -
- Results: -
- HS-CODE: 2904 10 00
- LGK: 10-13
- Disposal: 3
- WGK: -
- UN: -

959.08P *Pentane-1-sulfonic acid sodium salt - For ion pair chromatography*

Specification

Assay (alkalimetric, calculated on dried substance)	≥ 99.0 %	UV-transmission (0.005 mol/l; 1 cm; Water) (at 220 nm)	≥ 90 %
Identity (IR-spectrum)	passes test	UV-transmission (0.005 mol/l; 1 cm; Water) (at 250 nm)	≥ 98 %
pH (100 g/l, water)	5.5 - 7.5	Loss on drying (120 °C; 4h; Vacuum)	≤ 2.0 %
UV-transmission (0.005 mol/l; 1 cm; Water) (at 200 nm)	≥ 70 %		

catalogue number	packing specs	weight in pack	pack in box
959.08P.0051	glass bottle	50 g	4 pieces

lab chemicals & reagents

Perchloric acid 70-72 %



- -
- CAS-No: 7601-90-3
- EC-No: -
- EC index No: -
- M= -
- Vapor Pressure: -
- Specific density: 1.68 g/cm³ (20°C)
- Flash point: Not applicable
- Soluble in H_2O soluble at 20°C
- pH value strongly acid at 20°C
- Melting point: -18°C
- Bulk density: -
- Boiling point: 198.7°C (1013 hPa)
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- Oxidising, Corrosive
- H-STATEMENT/EUH: H271;290;314 / P210;280;301+330+331;305+351+338;308+310
- Test Type: -
- Results: -
- HS-CODE: 2811 19 80 ➤ LGK: 5.1A
- Disposal: 22 ➤ WGK: 1
- UN: 1873

959.026 *Perchloric acid 70-72 % - ACS, ISO, Reag. Ph Eur*

Specification

Assay	70.0 - 72.0 %	Ca (Calcium)	≤ 0.00005 %	Tl (Thallium)	≤ 0.000005 %
Identity	passes test	Cd (Cadmium)	≤ 0.000005 %	V (Vanadium)	≤ 0.000005 %
Color (In APHA)	≤ 10 hazen	Co (Cobalt)	≤ 0.000005 %	Zn (Zinc)	≤ 0.00001 %
Chlorate (ClO_3)	≤ 0.001 %	Cu (Copper)	≤ 0.00001 %	Zr (Zirconium)	≤ 0.00001 %
Chloride (Cl)	≤ 0.0003 %	Fe (Iron)	≤ 0.0001 %	Sulfated ash	≤ 0.003 %
Free chlorine	≤ 0.00005 %	Ge (Germanium)	≤ 0.000005 %		
Phosphate, silicate (as SiO_2)	≤ 0.0005 %	K (Potassium)	≤ 0.00001 %		
Sulfate (SO_4)	≤ 0.001 %	Li (Lithium)	≤ 0.000002 %		
Total nitrogen	≤ 0.001 %	Mg (Magnesium)	≤ 0.00005 %		
Heavy metals (as Pb)	≤ 0.0001 %	Mn (Manganese)	≤ 0.000002 %		
Ag (Silver)	≤ 0.00001 %	Mo (Molybdenum)	≤ 0.000005 %		
Al (Aluminium)	≤ 0.000005 %	Na (Sodium)	≤ 0.00005 %		
As (Arsenic)	≤ 0.000005 %	Ni (Nickel)	≤ 0.00001 %		
Ba (Barium)	≤ 0.000002 %	Pb (Lead)	≤ 0.000005 %		
Be (Beryllium)	≤ 0.000002 %	Sr (Strontium)	≤ 0.000002 %		
Bi (Bismuth)	≤ 0.00001 %	Ti (Titanium)	≤ 0.00001 %		

catalogue number	packing specs	volume in pack	pack in box
959.026.2501	glass bottle	2.5 l	4 pieces

Petroleum Ether boiling range 40-60 °C



- -
- CAS-No: 64742-49-0
- EC-No: -
- EC index No: 649-328-00-1
- M= -
- Vapor Pressure: 350 hPa (20°C)
- Specific density: 0.645 - 0.665 g/cm³ (15°C)
- Flash point: <-21°C
- Soluble in H_2O 0.01 g/l at 20°C
- pH value -
- Melting point: <-80°C
- Bulk density: -
- Boiling point: 40-60°C (1.013 hPa)
- Ignition temperature: 250°C
- Explosive limit: 0.8 - 7.4 %(V)
- Viscosity kinematic: 0.45 mm²/s (20°C)
- Flammable, Harmful
- H-STATEMENT/EUH: H225;304;315;336;411 / P210;240;273;301+330+331;302+352;403+233
- Test Type: LC50 Inhalation Rat
- Results: 12 mg/l/4h
- HS-CODE: 2710 12 25 ➤ LGK: 3
- Disposal: 1 ➤ WGK: 3
- UN: 1268

959.033 *Petroleum Ether boiling range 40-60°C - DAB*

Specification

Appearance	Clear colorless liquid	n-Hexane (GC)	≤ 2.0 %		
Acidity or alkalinity	passes test	Tetraethyllead	passes test		
Boiling range (40-60°C)	≥ 75.0 % (v/v)	Readily carbonisable substance	passes test		
Colour (APHA)	≤ 10	Evaporation residue	≤ 0.001 %		
Foreign odour, non-volatile matter	passes test	Sulphur compounds (as S)	≤ 0.005 %		
Sulphur compounds, reducing substances	passes test	Substances dark by H_2SO_4	passes test		
Benzene (GC)	≤ 0.001 %	Water	≤ 0.01 %		

catalogue number	packing specs	volume in pack	pack in box
959.033.5000	plastic bottle	5 l	4 pieces
959.033.5002	alum. bottle	5 l	4 pieces

959.037 *Petroleum Ether boiling range 40-60 °C - For liquid chromatography*

Specification

Appearance	Clear colorless liquid	220 nm	≥ 75 %		
Acidity	≤ 0.002 %	200 nm	≥ 10 %		
Water (KF)	≤ 0.005 %	Color (APHA)	≤ 10		
Residue after evaporation	≤ 0.0003 %	Filtered through 0.2µm			
270 nm	≥ 98 %				

catalogue number	packing specs	volume in pack	pack in box
959.037.2501	glass bottle	2.5 l	4 pieces

Phenol



- C_6H_6O
- CAS-No:108-95-2
- EC-No: 203-632-7
- EC index No: 604-001-00-2
- M= 94.11 g/mol
- Vapor Pressure: 0.2 hPa (20°C)
- Specific density: 1.06 g/cm³ (20°C)
- Flash point: 79°C
- Soluble in H_2O 84 g/l (20°C)
- pH value 5 (50 g/l, H_2O, 20°C)
- Melting point: 38 - 43°C
- Bulk density: 620 kg/m³
- Boiling point: 181.8°C (1013 hPa)
- Ignition temperature: 595°C
- Explosive limit: 1.3 - 9.5 %(V)
- Viscosity kinematic: -
- Toxic, corrosive, mutagenic, harmful
- H-STATEMENT/EUH: H301+311+331;314; 341; 373 / P280;301+330+331;302+352;304+ 340;305+351+338;308+310
- Test Type: LD50 oral rat , LD50 dermal rabbit
- Results: 317 mg/kg ; 850 mg/kg
- HS-CODE: 2907 11 00 ➤ LGK: 6.1A
- Disposal: 9 ➤ WGK: 2 ➤ UN: 1671

959.045 *Phenol* - *GR for analysis ACS, Reag. Ph Eur.*

Specification

Assay (bromometric)	99.0 - 100.5 %	Acidic substances	passes test
Identity	Passes test	Solidification temperature	≥ 39.5 °C
Appearance of solution (67 g/l, water)	clear and not more intensely soloured than reference solution B6	Residue on evaporation	≤ 0.05 %
		Water (according to Karl Fischer)	≤ 0.5 %

catalogue number	packing specs	weight in pack	pack in box
959.045.0250	plastic bottle	250 g	6 pieces
959.045.0500	plastic bottle	500 g	6 pieces
959.045.1000	plastic bottle	1 kg	6 pieces

Phloxin B



- C.I NO: 45410
- $C_{20}H_2Br_4Cl_4Na_2O_5$
- CAS-No: 18472-87-2
- EC-No: 242-355-6
- EC index No: -
- M= 829.64 g/mol
- Soluble in H_2O Partially soluble in
- Colour: Red powder
- Odour: Odorless
- pH value Not applicable
- Melting point: -
- -
- H-STATEMENT/EUH: H319;410 / P264; 280;305+351+338;337+313;391
- HS-CODE: 3204 1200
- LGK: 10-13
- UN: 3077

959.D01 *Phloxin B* - *(C.I.45410) for microscopy*

Specification

Appearance	Red colored powder	Absorptivity (1cm, λmax.)	≥ 750
Absorption maxima in 50 % ethanol	546 - 550 nm	Loss on drying (at 110°C)	≤ 10 %

catalogue number	packing specs	weight in pack	pack in box
959.D01.0010	plastic bottle	10 g	6 pieces
959.D01.0025	plastic bottle	25 g	6 pieces
959.D01.0050	plastic bottle	50 g	6 pieces
959.D01.0100	plastic bottle	100 g	6 pieces

Ortho-Phosphoric acid 85 %



- H_3PO_4
- CAS-No: 7664-38-2
- EC-No: 231-633-2
- EC index No: 015-011-00-6
- M= 98 g/mol
- Vapor Pressure: 2 hPa (20°C)
- Specific density: 1.71 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O at 20°C soluble
- pH value 1 (1 g/l, H_2O, 20°C)
- Melting point: no data available
- Bulk density: -
- Boiling point: 158°C (1013 hPa)
- Ignition temperature: not combustible
- Explosive limit: not applicable
- Viscosity kinematic: 28 mm²/s (20°C)
- corrosive
- H-STATEMENT/EUH: H314 / P280;264; 304+340;363;301+330+331;405
- Test Type: -
- Results: -
- HS-CODE: 2809 20 00
- LGK: 8 B ➤ Disposal: 12
- WGK: 1 ➤ UN: 1805

959.062 *Ortho-Phosphoric acid 85 % -* *Extra pure*

Specification

Assay	≥ 85.0 %	As (Arsenic)	≤ 0.00005 %	Matter precipitated by ammonia	passes test
Sulfate (SO_4)	≤ 0.003 %	Cl (Chloride)	≤ 0.0005 %	Substances reducing potassium permanganate (as O)	≤ 0.001 %
F (Fluoride)	≤ 0.001 %	H_3PO_4	≤ 0.012 %		
Heavy metals	≤ 0.0005 %				

catalogue number	packing specs	volume in pack	pack in box
959.062.1000	plastic bottle	1 l	6 pieces
959.062.2500	plastic bottle	2.5 l	4 pieces

959.066 *Ortho-Phosphoric acid 85 % -* *For analysis ACS, ISO, Reag. Ph Eur*

Specification

Assay (H_3PO_4)	85.0 - 86.0 %	Cd (Cadmium)	≤ 0.00005 %	Matter precipitated by ammonia	passes test
Identity	passes test	Co (Cobalt)	≤ 0.00005 %	Volatile acids (as Acetic acid)	≤ 0.001 %
Appearance of solution	passes test	Cu (Copper)	≤ 0.00005 %	Substances reducing potassium permanganate (as O)	≤ 0.001 %
Colour	≤ 10 APHA	Fe (Iron)	≤ 0.0002 %	Insoluble matter	≤ 0.001 %
Chloride (Cl)	≤ 0.0002 %	Hg (Mercury)	≤ 0.0001 %		
Fluoride (F)	≤ 0.0001 %	K (Potassium)	≤ 0.0005 %		
Nitrate (NO_3)	≤ 0.0003 %	Mg (Magnesium)	≤ 0.0005 %		
Phosphite (H_3PO_3)	≤ 0.002 %	Mn (Manganese)	≤ 0.00005 %		
Hypophosphite, phosphite	passes test	Na (Sodium)	≤ 0.005 %		
Heavy metals (as Pb)	≤ 0.0005 %	Ni (Nickel)	≤ 0.0001 %		
Sulphate (SO_4)	≤ 0.002 %	Pb (Lead)	≤ 0.00005 %		
As (Arsenic)	≤ 0.00001 %	Sb (Antimony)	≤ 0.0005 %		
Ca (Calcium)	≤ 0.002 %	Zn (Zinc)	≤ 0.0002 %		

catalogue number	packing specs	volume in pack	pack in box
959.066.1000	plastic bottle	1 l	6 pieces
959.066.2500	plastic bottle	2.5 l	4 pieces

Picric acid



- $(O_2N)_3C_6H_2OH$
- CAS-No: 88-89-1
- EC-No: 201-865-9
- EC index No: 609-009-00-X
- M= 229.10 g/mol
- Vapor Pressure: 1 hPa at 195°C
- Specific density: 1.80 g/cm³ (20°C)
- Flash point: 150°C - closed cup
- Soluble in H_2O 14 g/l
- pH value -
- Melting point: -
- Bulk density: -
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- Harmful, flammable
- H-STATEMENT/EUH: H228;302;311+331; EUH001 / P210;261;280;302+352+312;304+340+ 311;403+233
- Test Type: LD50 oral rat
- Results: 200 mg/kg
- HS-CODE: 2908 99 00 ➤ LGK: -
- Disposal: - ➤ WGK: 2 ➤ UN: 1344

959.079 *Picric acid* *- Moistened with water*

Specification

Assay (acidimetric)	99.0 - 100.5 %	Solubility	1.0 % solution in hot water is clear and bright.
Appearance	Pale yellow crystals	Sulphate (SO_4)	≤ 0.1 %

catalogue number	packing specs	weight in pack	pack in box
959.079.0100	plastic bottle	100 g	6 pieces
959.079.0500	plastic bottle	500 g	6 pieces
959.079.1000	plastic bottle	1 kg	6 pieces

Ponceau S



- C.I NO: 27195
- $C_{22}H_{12}N_4Na_4O_{13}S_4$
- CAS-No: 6226-79-5
- EC-No: 228-319-2
- EC index No: -
- M= 760.57 g/mol
- Soluble in H_2O Soluble in water
- Colour: Dark red crystalline
- Odour: Characteristic odour
- pH value Not applicable
- Melting point: -
- Irritant
- H-STATEMENT/EUH: H302;319;315;335 / P280;271;261;264;270;302+352;301+312;332+313;305+351+338;304+340;363;403+233;405;501
- HS-CODE: 3204 1200
- LGK: 10-13

960.D01 *Ponceau S* - *(C.I.27195) for electrophoresis*

Specification

Appearance	A dark red crystalline powder	Loss on drying (at 110°C)	≤ 10 %
Absorption maximum in water	517 - 523 nm	Suitability for electrophoresis	Passes test
Specific Absorptivity	≥ 460		

catalogue number	packing specs	weight in pack	pack in box
960.D01.0010	plastic bottle	10 g	6 pieces
960.D01.0025	plastic bottle	25 g	6 pieces
960.D01.0050	plastic bottle	50 g	6 pieces
960.D01.0100	plastic bottle	100 g	6 pieces

Potassium carbonate



- CK_2O_3
- CAS-No: 584-08-7
- EC-No: 209-529-3
- EC index No: -
- M= 138.21 g/mol
- Vapor Pressure: not applicable
- Specific density: 2.43 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 1120 g/l (20°C)
- pH value 11.5 - 12.5 (50 g/l, H_2O, 20°C)
- Melting point: 891°C
- Bulk density: 750 kg/m³
- Boiling point: not applicable
- Ignition temperature: not applicable
- Explosive limit: -
- Viscosity kinematic: -
- Irritant
- H-STATEMENT/EUH: H315;319;335 / P302+352;305+351+338
- Test Type: LD50 oral rat
- Results: > 2000 mg/kg
- HS-CODE: 2836 40 00
- LGK: 10-13 ➤ Disposal: 14
- WGK: 1 ➤ UN: -

960.026 *Potassium carbonate* - *For analysis ACS, ISO, Reag. Ph Eur*

Specification

Assay (acidimetric; calculated on dried substance)	≥ 99.0 %	Total nitrogen (N)	≤ 0.001 %	Substances precipitated by ammonia	≤ 0.01 %
Assay (acidimetric)	≥ 99.0 %	Heavy metals (as Pb)	≤ 0.0005 %	Loss on drying (300°C)	≤ 1.0 %
Insoluble matter	≤ 0.005 %	Ca (Calcium)	≤ 0.002 %		
Chloride (Cl)	≤ 0.003 %	Cu (Copper)	≤ 0.0005 %		
Phosphate (PO_4)	≤ 0.001 %	Fe (Iron)	≤ 0.0005 %		
Silicate (SiO_2)	≤ 0.005 %	Mg (Magnesium)	≤ 0.001 %		
Total sulfur (as sulphate)	≤ 0.003 %	Na (Sodium)	≤ 0.02 %		
		Pb (Lead)	≤ 0.0005 %		

catalogue number	packing specs	weight in pack	pack in box
960.026.0500	plastic bottle	500 g	6 pieces
960.026.1000	plastic bottle	1 kg	6 pieces

Potassium chloride

- KCl
- CAS-No: 7447-40-7
- EC-No: 231-211-8
- EC index No: -
- M= 74.55 g/mol
- Vapor Pressure: -
- Specific density: 1.98 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 300 g/l (20°C)
- pH value 4 - 11 (25°C)
- Melting point: 770°C
- Bulk density: 1000 kg/m³
- Boiling point: 1413°C (1013 hPa)
- Ignition temperature: -
- Explosive limit: not applicable
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 oral rat
- Results: 2600 mg/kg
- HS-CODE: 3104 20 90
- LGK: 10 - 13
- Disposal: 14
- WGK: 1 ➤ UN: -

960.036 *Potassium chloride* - *For analysis*

Specification

Assay (KCl calc. on dried substance)	99.0 - 100.5 %	Sulphate (SO_4)	≤ 0.03 %		
Insoluble matter in water	≤ 0.01 %	Total nitrogen (N)	≤ 0.001 %		
pH value (5 %)	5.5 - 8.0	Heavy Metals (as Pb)	≤ 0.0005 %		
Bromide (Br)	≤ 0.05 %	Barium (Ba)	passes test		
Iodide (I)	passes test	Calcium (Ca)	≤ 0.002 %		
Iodide (I)	≤ 0.002 %	Iron (Fe)	≤ 0.0003 %		
Phosphate (PO_4)	≤ 0.0005 %	Magnesium (Mg)	≤ 0.001 %		
		Sodium (Na)	≤ 0.02 %		

catalogue number	packing specs	weight in pack	pack in box
960.036.0250	plastic bottle	250 g	6 pieces
960.036.0500	plastic bottle	500 g	6 pieces
960.036.1000	plastic bottle	1 kg	6 pieces

Potassium chromate



- CrK_2O_4
- CAS-No: 7789-00-6
- EC-No: 232-140-5
- EC index No: 024-006-00-8
- M= 194.19 g/mol
- Vapor Pressure: low
- Specific density: 2.73 g/cm³ (18°C)
- Flash point: -
- Soluble in H_2O 637 g/l (20°C)
- pH value 8.6 - 10 (%5)
- Melting point: 985°C
- Bulk density: 1400 kg/m³
- Boiling point: 1000°C
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- carcinogenic, mutagenic, irritant, sensitizing, dangerous for the environment
- H-STATEMENT/EUH: H340;350i;315;317; 319; 335; 410 / P201;273;280;302+352; 305+ 351+388;308+313
- Test Type: - Results: -
- HS-CODE: 2841 50 00 LGK: 6.1 B
- Disposal: 22 WGK: 3 UN: 3288

960.046 *Potassium chromate* - *For analysis ACS, Reag. Ph Eur*

Specification

Assay (iodometric)	99.5 - 100.5 %	Ca (Calcium)	≤ 0.005 %
In water insoluble matter	≤ 0.003 %	Na (Sodium)	≤ 0.02 %
pH-value (5 %; water)	9.0 - 9.8	Pb (Lead)	≤ 0.005 %
Chloride (Cl)	≤ 0.001 %	Loss on drying	≤ 0.5 %
Sulphate (SO_4)	≤ 0.01 %		

catalogue number	packing specs	weight in pack	pack in box
960.046.0250	plastic bottle	250 g	6 pieces
960.046.0500	plastic bottle	500 g	6 pieces
960.046.1000	plastic bottle	1 kg	6 pieces

Potassium dichromate



- $Cr_2K_2O_7$
- CAS-No: 7778-50-9
- EC-No: 231-906-6
- EC index No: 024-002-00-6
- M= 294.19 g/mol
- Vapor Pressure: not applicable
- Specific density: 2.7 g/cm³ (20 °C)
- Flash point: not applicable
- Soluble in H_2O 115 g/l
- pH value 3.6 (100 g/l, H_2O)
- Melting point: 398 °C
- Bulk density: 1250 kg/m³
- Boiling point: >500°C (1013 hPa)
- Ignition temperature: not applicable
- Explosive limit: not applicable
- Viscosity kinematic: -
- carcinogenic, mutagenic, toxic for reproduction, oxidizing, very toxic
- H-STATEMENT/EUH: H272;301;312;314; 317; 330; 334;335;340;350;360FD;372;410 / P201;221;273;280;301+330+331;302+352;304 +340;305+351+338;308+310
- Test Type: LD50 oral rat; LD50 dermal rabbit
- Results: 90.5 mg/kg ; 403-490 mg/kg
- HS-CODE: 2841 50 00 LGK: 5.1 B
- Disposal: 22 WGK: 3 UN: 3086

960.056 *Potassium dichromate* - *For analysis ACS, ISO, Reag. Ph Eur*

Specification

Assay (iodometric, calc. on dried subs.)	≥ 99.9 %	Cu (Copper)	≤ 0.001 %
Insoluble matter	≤ 0.003 %	Fe (Iron)	≤ 0.001 %
Chloride (Cl)	≤ 0.001 %	Na (Sodium)	≤ 0.02 %
Sulphate (SO_4)	≤ 0.005 %	Pb (Lead)	≤ 0.005 %
Ca (Calcium)	≤ 0.002 %	Loss on drying (130°C)	≤ 0.05 %

catalogue number	packing specs	weight in pack	pack in box
960.056.0500	plastic bottle	500 g	6 pieces
960.056.1000	plastic bottle	1 kg	6 pieces

Potassium dihydrogen phosphate

- H_2KO_4P
- CAS-No: 7778-77-0
- EC-No: 231-913-4
- EC index No: -
- M= 136.09 g/mol
- Vapor Pressure: -
- Specific density: 2.33 g/cm³ (21.5°C)
- Flash point: not applicable
- Soluble in H_2O 208 g/l (20°C)
- pH value 4.2 - 4.6 (20 g/l, H_2O, 20°C)
- Melting point: 253°C (decomposition)
- Bulk density: 1200 kg/m³
- Boiling point: not applicable (decomposition)
- Ignition temperature: not applicable
- Explosive limit: not applicable
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 oral rat; LD50 dermal rabbit
- Results: >2000 mg/kg, 4640 mg/kg
- HS-CODE: 2835 24 00
- LGK: 10-13
- Disposal: 14
- WGK: 1 UN: -

960.066 *Potassium dihydrogen phosphate* - *Cryst. For analysis ISO*

Specification

Assay (KH_2PO_4, calculated on dried substance)	99.5 - 100.5 %	Cd (Cadmium)	≤ 0.0001 %
		Cu (Copper)	≤ 0.0003 %
pH-value (5 %; water)	4.2 - 4.5	Fe (Iron)	≤ 0.001 %
Solubility	passes test	Hg (Mercury)	≤ 0.0001 %
Chloride (Cl)	≤ 0.0005 %	Na (Sodium)	≤ 0.02 %
Sulphate (SO_4)	≤ 0.003 %	Pb (Lead)	≤ 0.001 %
Total nitrogen	≤ 0.001 %	Reducing substances	passes test
Heavy metals (as Pb)	≤ 0.001 %	Loss on drying	≤ 0.2 %
As (Arsenic)	≤ 0.0002 %		

catalogue number	packing specs	weight in pack	pack in box
960.066.0250	plastic bottle	250 g	6 pieces
960.066.0500	plastic bottle	500 g	6 pieces
960.066.1000	plastic bottle	1 kg	6 pieces
960.066.5000	plastic bottle	5 kg	1 piece

di-Potassium hydrogen phosphate anhydrous

- HK_2O_4P
- CAS-No: 7758-11-4
- EC-No: 231-834-5
- EC index No: -
- M= 174.18 g/mol
- Vapor Pressure: -
- Specific density: 2.44 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 1600 g/l (20°C)
- pH value 8.5 - 9.6 (%5)
- Melting point: 340 °C (decomposition)
- Bulk density: 700 - 1000 kg/m³
- Boiling point: Not applicable
- Ignition temperature: Not applicable
- Explosive limit: Not applicable
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 oral rat
- Results: 8.000 mg/kg
- HS-CODE: 2835 24 00
- LGK: 10-13
- Disposal: 14
- WGK: 1 ➤ UN: -

960.123 *di-Potassium hydrogen phosphate anhydrous* - *Extra pure Ph Eur, BP, USP*

Specification

Assay (acidimetric, on dried sample)	98 - 101 %	Arsenic (As)	≤ 0.0003 %
Identification	passes test	Heavy metals (as Pb)	≤ 0.001 %
Appearance of solution	clear and colourless	Iron (Fe)	≤ 0.003 %
pH (5 %, H_2O)	8.5 - 9.6	Sodium (Na)	≤ 0.1 %
Insoluble matter	≤ 0.2 %	Potassium dihydrogen phosphate	≤ 2.5 %
Chlorides (Cl)	≤ 0.03 %	Potassium dihydrogen phosphate and tri-potassium phosphate	passes test
Carbonate	passes test	Reducing substances	passes test
Fluorides (F)	≤ 0.001 %	Loss on drying (130 °C)	≤ 2 %
Sulphate (SO_4)	≤ 0.1 %		

catalogue number	packing specs	weight in pack	pack in box
960.123.1000	plastic bottle	1 kg	6 pieces
960.123.5000	plastic bottle	5 kg	6 pieces

960.126 *di-Potassium hydrogen phosphate anhydrous* - *For analysis reagent grade, ACS, Reag. Ph Eur.*

Specification

Assay (alkalimetric)	≥ 99.0 %	Heavy metals (as Pb)	≤ 0.0005 %
pH (5 %, H_2O)	8.5 - 9.6	Iron (Fe)	≤ 0.001 %
Chloride (Cl)	≤ 0.003 %	Sodium (Na)	≤ 0.05 %
Sulphate (SO_4)	≤ 0.005 %	Loss on drying (130 °C)	≤ 1.0 %
Total Nitrogen (N)	≤ 0.001 %		

catalogue number	packing specs	weight in pack	pack in box
960.126.1000	plastic bottle	1 kg	6 pieces
960.126.5000	plastic bottle	5 kg	6 pieces

Potassium hexacyanoferrate (II) trihydrate

- $C_6FeK_4N_6*3H_2O$
- CAS-No: 14459-95-1
- EC-No: 237-722-2
- EC index No: -
- M= 422.39 g/mol
- Vapor Pressure: -
- Specific density: 1.850 g/cm³
- Flash point: not applicable
- Soluble in H_2O 289 g/l (20°C)
- pH value 8-10 (20°C)
- Melting point: 70°C Elimination of water of crystallisation
- Bulk density: 950 - 1050 kg/m³
- Boiling point: - ➤ Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- dangerous for the environment
- H-STATEMENT/EUH: H412 / P273
- Test Type: LD50 oral rat
- Results: 3613 mg/kg
- HS-CODE: 2837 20 00
- LGK: 10-13
- Disposal: 14
- WGK: 2 ➤ UN: -

960.076 *Potassium hexacyanoferrate (II) trihydrate* - *For analysis ACS, ISO, Reag. Ph Eur*

Specification

Assay (permanganometric)	99 - 102 %	Cd (Cadmium)	≤ 0.0005 %
Insoluble matter	≤ 0.005 %	Cu (Copper)	≤ 0.002 %
Chloride (Cl)	≤ 0.01 %	Pb (Lead)	≤ 0.002 %
Sulphate (SO_4)	≤ 0.005 %	Na (Sodium)	≤ 0.01 %

catalogue number	packing specs	weight in pack	pack in box
960.076.0100	plastic bottle	100 g	6 pieces
960.076.0500	plastic bottle	500 g	6 pieces
960.076.1000	plastic bottle	1 kg	6 pieces

960.142 *Potassium hexacyanoferrate (II) trihydrate* - *Extra Pure*

Specification

Assay (Permanganometric)	≥ 99.0 %	As (Arsenic)	≤ 0.0003 %
Insoluble in water	≤ 0.025 %	Cu (Copper)	≤ 0.0025 %
Chlorides (Cl)	≤ 0.05 %	Pb (Lead)	≤ 0.001 %
Sulphate (SO_4)	≤ 0.01 %	Zn (Zinc)	≤ 0.0025 %
Ferricyanides [$Fe(CN)_6$]	passes test	Water	≤ 1 %

catalogue number	packing specs	weight in pack	pack in box
960.142.0500	plastic bottle	500 g	6 pieces
960.142.1000	plastic bottle	1 kg	6 pieces

Potassium hydroxide



- KOH
- CAS-No: 1310-58-3
- EC-No: 215-181-3
- EC index No: 019-002-00-8
- M= 56.11 g/mol
- Vapor Pressure: 1.0 hPa (714°C)
- Specific density: 2.04 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 1130 g/l
- pH value 14 (56 g/l, H_2O, 20°C)
- Melting point: 360°C
- Bulk density: -
- Boiling point: 1.320°C (2408°F)
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- Harmful, Corrosive
- H-STATEMENT/EUH: H290;302;314 / P280;264;310;304+340;363;301+312;405
- Test Type: LD50 oral rat
- Results: 333 mg/kg
- HS-CODE: 2815 20 10
- LGK: 8 B ➤ Disposal: 13
- WGK: 1 ➤ UN: 1813

960.082 *Potassium hydroxide* - *Pellets pure*

Specification

Assay (KOH)	≥ 85.0 %	Heavy metals (as Pb)	≤ 0.002 %
Carbonate (as K_2CO_3)	≤ 2.0 %	Al (Aluminium)	≤ 0.002 %
Chloride (Cl)	≤ 0.01 %	Fe (Iron)	≤ 0.002 %
Sulphate (SO_4)	≤ 0.01 %		

catalogue number	packing specs	weight in pack	pack in box
960.082.0500	plastic bottle	500 g	6 pieces
960.082.1000	plastic bottle	1 kg	6 pieces

960.083 *Potassium hydroxide* - *Pellets Ph.Eur, BP, JP, NF, FCC, E 525*

Specification

Assay (KOH)	≥ 85.0 %	Total nitrogen (N)	≤ 0.0005 %	Na (Sodium)	≤ 1.0 %
Identity	passes test	Heavy metals (as Pb)	≤ 0.0005 %	Ni (Nickel)	≤ 0.001 %
Appearance of solution	passes test	Al (Aluminium)	≤ 0.001 %	Pb (Lead)	≤ 0.0005 %
Insoluble Substance	≤ 0.01 %	Ammonium	≤ 0.0005 %	Zn (Zinc)	≤ 0.001 %
Carbonate (as K_2CO_3)	≤ 1.0 %	Arsenic	≤ 0.0001 %		
Chloride (Cl)	≤ 0.004 %	Ca (Calcium)	≤ 0.002 %		
Phosphate (PO_4)	≤ 0.0005 %	Cu (Copper)	≤ 0.0005 %		
Silicate (SiO_2)	≤ 0.005 %	Fe (Iron)	≤ 0.0005 %		
Sulphate (SO_4)	≤ 0.003 %	Hg (Mercury)	≤ 0.00001 %		
Nitrate	≤ 0.001 %	Mg (Magnesium)	≤ 0.0005 %		

catalogue number	packing specs	weight in pack	pack in box
960.083.0500	plastic bottle	500 g	6 pieces
960.083.1000	plastic bottle	1 kg	6 pieces

960.086 *Potassium hydroxide* - *Pellets for analysis reagent grade, ACS, ISO, Reag. Ph Eur*

Specification

Assay (acidimetric)	≥ 85.0 %	Al (Aluminium)	≤ 0.0002 %	Zn (Zinc)	≤ 0.0001 %
Identity	passes test	Ca (Calcium)	≤ 0.0005 %	Ammonium hydroxide precipitate	≤ 0.02 %
Appearance of solution	passes test	Cd (Cadmium)	≤ 0.00001 %		
Carbonates (as K_2CO_3)	≤ 1.0 %	Cu (Copper)	≤ 0.0001 %		
Chloride (Cl)	≤ 0.0005 %	Fe (Iron)	≤ 0.0005 %		
Phosphate (PO_4)	≤ 0.0005 %	Mg (Magnesium)	≤ 0.0005 %		
Silicate (SiO_2)	≤ 0.002 %	Mn (Manganese)	≤ 0.00005 %		
Sulphate (SO_4)	≤ 0.0005 %	Na (Sodium)	≤ 0.05 %		
Total nitrogen (N)	≤ 0.0003 %	Ni (Nickel)	≤ 0.0001 %		
Heavy metals (as Pb)	≤ 0.001 %	Pb (Lead)	≤ 0.0001 %		

catalogue number	packing specs	weight in pack	pack in box
960.086.0500	plastic bottle	500 g	6 pieces
960.086.1000	plastic bottle	1 kg	6 pieces

Potassium iodate



- KIO_3
- CAS-No: 7758-05-6
- EC-No: 231-831-9
- EC index No: -
- M= 214 g/mol
- Vapor Pressure: -
- Specific density: 3.98 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 92 g/l (25°C)
- pH value 6 (50 g/l, H_2O, 20°C)
- Melting point: 560°C decomposes
- Bulk density: 2000 kg/m³
- Boiling point: not applicable
- Ignition temperature: not applicable
- Explosive limit: not applicable
- Viscosity kinematic: -
- oxidizing, irritant
- H-STATEMENT/EUH: H272;318; / P220;261;305+351+338
- Test Type: -
- Results: -
- HS-CODE: 2829 90 80
- LGK: 5.1 B ➤ Disposal: 22
- WGK: 1 ➤ UN: 1479

960.096 *Potassium iodate* - *For analysis ACS, ISO, Reag. Ph Eur*

Specification

Assay	99.80 - 100.40 %	Heavy metals (as Pb)	≤ 0.0005 %
Insoluble matter	≤ 0.005 %	Arsenic (As)	≤ 0.0003 %
pH-value (5 % solution)	5.0 - 8.0	Fe (Iron)	≤ 0.001 %
Chloride and bromide (as Cl)	≤ 0.01 %	Na (Sodium)	≤ 0.005 %
Iodides(I)	≤ 0.001 %	Pb (Lead)	≤ 0.0004 %
Sulphate (SO_4)	≤ 0.005 %	Loss on drying	≤ 0.05 %
Nitrogen (N)	≤ 0.002 %		

catalogue number	packing specs	weight in pack	pack in box
960.096.0100	plastic bottle	100 g	6 pieces
960.096.0500	plastic bottle	500 g	6 pieces

Potassium iodide

- KI
- CAS-No: 7681-11-0
- EC-No: 231-659-4
- EC index No: -
- M= 166.00 g/mol
- Vapor Pressure: <0.01 hPa (20°C)
- Specific density: 3.13 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 1430 g/l
- pH value 6 - 9 (50 g/l, H_2O, 20°C)
- Melting point: 685°C (975 hPa)
- Bulk density: 1500 kg/m³
- Boiling point: 1325°C (1013 hPa)
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 oral rat
- Results: 2779 mg/kg ; 3160 mg/kg
- HS-CODE: 2827 60 00
- LGK: 10 - 13
- Disposal: 14
- WGK: 1 ➤ UN: -

960.106 *Potassium iodide* - *For analysis ISO, Reag. Ph Eur*

Specification

Assay (calculated on dried substance)	≥ 99.5 %	Total Nitrogen (N)	≤ 0.001 %
Identity	passes test	Heavy Metals (as Pb)	≤ 0.0005 %
Appearance of Solution	passes test	As (Arsenic)	≤ 0.00001 %
Alkaline impurities	passes test	Ba (Barium)	≤ 0.002 %
pH (5 % H_2O)	6.0 - 9.0	Ca (Calcium)	≤ 0.001 %
Insoluble matter in H_2O	≤ 0.002 %	Cu (Copper)	≤ 0.0002 %
Chloride and Bromide (As Cl)	≤ 0.01 %	Fe (Iron)	≤ 0.0002 %
Iodate (IO_3)	≤ 0.0003 %	Mg (Magnesium)	≤ 0.001 %
Phosphate (PO_4)	≤ 0.001 %	Na (Sodium)	≤ 0.03 %
Sulphate (SO_4)	≤ 0.001 %	Pb (Lead)	≤ 0.0002 %
Thiosulphate (S_2O_3)	≤ 0.001 %	Reducing Substance	passes test
		Loss on Drying	≤ 0.5 %

catalogue number	packing specs	weight in pack	pack in box
960.106.0250	plastic bottle	250 g	6 pieces
960.106.0500	plastic bottle	500 g	6 pieces
960.106.1000	plastic bottle	1 kg	6 pieces

Potassium nitrate



- KNO_3
- CAS-No: 7757-79-1
- EC-No: 231-818-8
- EC index No: -
- M= 101.10 g/mol
- Vapor Pressure: -
- Specific density: 2.109 g/cm³
- Flash point: -
- Soluble in H_2O 320 g/l (20ºC)
- pH value 5 - 8 (20°C; 50g/l)
- Melting point: 334 °C
- Bulk density: 800 kg/m³
- Boiling point: not applicable
- Ignition temperature: -
- Explosive limit: not applicable
- Viscosity kinematic: -
- Oxidising
- H-STATEMENT/EUH: H272 / P210;221
- Test Type: LD50 oral rat
- Results: 3750 mg/kg
- HS-CODE: 2834 21 00
- LGK: 5.1B
- Disposal: -
- WGK: 1 ➤ UN: 1486

960.116 *Potassium nitrate* - *For analysis ISO, Reag. Ph Eur.*

Specification

Assay (alkalimetric)	≥ 99.0 %	Ca (Calcium)	≤ 0.001 %
pH-value (5 %; water)	5.0 - 7.5	Cu (Copper)	≤ 0.0001 %
Chloride (Cl)	≤ 0.001 %	Fe (Iron)	≤ 0.0003 %
Iodate (IO_3)	≤ 0.0005 %	Mg (Magnesium)	≤ 0.0015 %
Nitrite (NO_2)	≤ 0.0005 %	Na (Sodium)	≤ 0.02 %
Phosphate (PO_4)	≤ 0.0005 %	NH_4 (Ammonium)	≤ 0.001 %
Sulphate (SO_4)	≤ 0.003 %	Pb (Lead)	≤ 0.0002 %
Heavy metals (as Pb)	≤ 0.0005 %		

catalogue number	packing specs	weight in pack	pack in box
960.116.0500	plastic bottle	500 g	6 pieces
960.116.1000	plastic bottle	1 kg	6 pieces

Potassium sulfate

- K_2SO_4
- CAS-No: 7778-80-5
- EC-No: 231-915-5
- EC index No: -
- M= 174.26 g/mol
- Vapor Pressure: -
- Specific density: 2.66 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 111 g/l (20°C)
- pH value 5.5 - 8.5 (50 g/l, H_2O, 20°C)
- Melting point: 1069°C
- Bulk density: 800 kg/m³
- Boiling point: 1689°C (1013 hPa)
- Ignition temperature: not applicable
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 oral rat
- Results: 6600 mg/kg
- HS-CODE: 3105 10 00
- LGK: 10-13
- Disposal: 14
- WGK: 1 ➤ UN: -

960.136 *Potassium sulfate* - *For analysis ACS, ISO, Reag. Ph Eur*

Specification

Assay (alkalimetric)	≥ 99.0 %	As (Arsenic)	≤ 0.0002 %
Insoluble matter	≤ 0.01 %	Ca (Calcium)	≤ 0.005 %
pH-value (5 %; water)	5.5 - 8.0	Fe (Iron)	≤ 0.0005 %
Chloride (Cl)	≤ 0.0005 %	Mg (Magnesium)	≤ 0.002 %
Total nitrogen (N)	≤ 0.0005 %	Na (Sodium)	≤ 0.02 %
Heavy metals (as Pb)	≤ 0.0005 %		

catalogue number	packing specs	weight in pack	pack in box
960.136.0500	plastic bottle	500 g	6 pieces
960.136.1000	plastic bottle	1 kg	6 pieces

1-Propanol



- C_3H_8O
- CAS-No: 71-23-8
- EC-No: 200-746-9
- EC index No: 603-003-00-0
- M= 60.1 g/mol
- Vapor Pressure: 19 hPa (20°C)
- Specific density: 0.80 g/cm³ (20°C)
- Flash point: 15°C
- Soluble in H_2O miscible in all proportions at 20°C
- pH value 7 (200 g/l, H_2O, 20°C)
- Melting point: -127°C
- Bulk density: -
- Boiling point: 96.5 - 98°C (1013 hPa)
- Ignition temperature: 360°C
- Explosive limit: 2.1 - 19.2 %(V)
- Viscosity kinematic: -
- Flammable , Irritant
- H-STATEMENT/EUH: H225;318;336 / P210; 240;280;305+351+338;313;403+233
- Test Type: LD50 Oral Rat; LD50 Dermal Rabbit
- Results: 1870 mg/kg; 5040 mg/kg
- HS-CODE: 2905 12 00
- LGK: 3
- Disposal: 3
- WGK: 1
- UN: 1274

961.012 *1-Propanol* - *Extra pure*

Specification

Purity (GC)	≥ 99.0 %	Methanol (GC)	≤ 0.1 %
Identity (IR)	passes test	Readily carbonizable substances	passes test
Acidity (C_2H_5COOH)	≤ 0.002 %	Water	≤ 0.2 %

catalogue number	packing specs	volume in pack	pack in box
961.012.1000	plastic bottle	1 l	6 pieces
961.012.2500	plastic bottle	2.5 l	4 pieces

961.016 *1-Propanol* - *For analysis ACS, Reag. Ph Eur.*

Specification

Purity (GC)	≥ 99.5 %	Ba (Barium)	≤ 0.00001 %	Zn (Zinc)	≤ 0.00001 %
Identity (IR)	passes test	B (Boron)	≤ 0.000002 %	Evaporation residue	≤ 0.001 %
Appearance	Clear colorless liquid	Ca (Calcium)	≤ 0.00005 %	Water	≤ 0.05 %
Colour	≤ 10 Hazen	Cd (Cadmium)	≤ 0.000005 %	Identification A	passes EP test
Solubility in water	passes test	Co (Cobalt)	≤ 0.000002 %	Identification B	passes EP test
Acidity	≤ 0.0004 meq/g	Cr (Chromium)	≤ 0.000002 %	Identification C	passes EP test
Alkalinity	≤ 0.0002 meq/g	Cu (Copper)	≤ 0.000002 %	Identification D	passes EP test
Acidity or Alkalinity	passes test	Fe (Iron)	≤ 0.00001 %	Refractive index	1.384 - 1.387
Boiling range (96-99 °C)	passes test	Ir (Iridium)	≤ 0.00001 %	Related substance	passes EP test
Acetone (GC)	≤ 0.01 %	Mg (Magnesium)	≤ 0.00001 %	Any impurity	≤ 0.1 %
Ethanol (GC)	≤ 0.01 %	Mn (Manganese)	≤ 0.000002 %	Total impurities	≤ 0.3 %
Methanol (GC)	≤ 0.01 %	Mo (Molybdenum)	≤ 0.00001 %	Reducing substance	passes EP test
2-Propanol (GC)	≤ 0.05 %	Ni (Nickel)	≤ 0.000002 %	Solubility	water & ethanol
Aldehydes and ketones (as C_3H_6O)	≤ 0.03 %	Os (Osmium)	≤ 0.00001 %		
Matter discoloured by H_2SO_4	≤ 10 Hazen	Pb (Lead)	≤ 0.00001 %		
A230 nm	≤ 0.300 AU	Pd (Palladium)	≤ 0.00001 %		
A250 nm	≤ 0.100 AU	Pt (Platinum)	≤ 0.00001 %		
A270 nm	≤ 0.030 AU	Rh (Rhodium)	≤ 0.00001 %		
A290 nm	≤ 0.020 AU	Ru (Ruthenium)	≤ 0.00001 %		
A310 nm	≤ 0.010 AU	Sb (Antimony)	≤ 0.000005 %		
Absorbance curve	smooth curve	Sn (Tin)	≤ 0.00001 %		
Al (Aluminium)	≤ 0.00005 %	V (Vanadium)	≤ 0.00001 %		

catalogue number	packing specs	volume in pack	pack in box
961.016.2501	glass bottle	2.5 l	4 pieces

961.017 *1-Propanol* - *For liquid chromatography*

Specification

Purity (GC)	≥ 99.8 %	Alkalinity	≤ 0.0002 meq/g
Identity (IR)	passes test	Transmission (at 230 nm)	≥ 70 %
Evaporation residue	≤ 0.0002 %	Transmission (at 240 nm)	≥ 80 %
Water	≤ 0.02 %	Transmission (from 270 nm)	≥ 98 %
Acidity	≤ 0.0002 meq/g	Filtered by 0.2 µm filter	

catalogue number	packing specs	volume in pack	pack in box
961.017.2501	glass bottle	2.5 l	4 pieces

2-Propanol



- C_3H_8O
- CAS-No: 67-63-0
- EC-No: 200-661-7
- EC index No: 603-117-00-0
- M= 60.1 g/mol
- Vapor Pressure: 43 hPa (20°C)
- Specific density: 0.786 g/cm³ (20°C)
- Flash point: 12°C
- Soluble in H_2O soluble at 20°C
- pH value neutral at 20°C
- Melting point: -89.5°C
- Bulk density: -
- Boiling point: 82°C
- Ignition temperature: 425°C
- Explosive limit: 2 - 13.4 %(V)
- Viscosity kinematic: -
- Flammable, Irritant
- H-STATEMENT/EUH: H225;319;336 / P210; 240;305+351+338;403+233
- Test Type: LD50 oral Rat ; LD50 dermal Rabbit
- Results: > 2000 mg/kg ; 12800 mg/kg
- HS-CODE: 2905 12 00
- LGK: 3 ➤ Disposal: 1
- WGK: 1 ➤ UN: 1219

961.023 *2-Propanol* - *Ph Eur, BP, JP, USP*

Specification

Purity (GC)	≥ 99.5 %
Identity (IR)	passes test
Appearance	passes test
Acidity or Alkalinity	passes test
Benzene and related subs. (GC) (Benzene)	≤ 0.0002 %
Benzene and related subs. (GC) (total of imp. Apart from 2-butanol)	≤ 0.3 %
Density (d 25°C/25°C)	0.785 - 0.789
The spectrum shows a steadily descending curve with no observable peaks or shoulders	passes test
Peroxides	passes test
Volatile Imp. (GC) individual	≤ 0.1 %
Volatile Imp. (GC) total	≤ 1.0 %
Water	≤ 0.1 %
Absorbance (at 230 nm)	≤ 0.3
Absorbance (at 250 nm)	≤ 0.1
Absorbance (at 270 nm)	≤ 0.03
Absorbance (at 290 nm)	≤ 0.02
Absorbance (at 310 nm)	≤ 0.01
Clarity of Solution	passes test
Acidity	passes test
Colour	≤ 5 hazen
Solubility in water	passes test
Non volatile substance	≤ 0.0001 %
UV Absorbance	passes test
Residual Solvent	passes test

catalogue number	packing specs	volume in pack	pack in box
961.023.1000	plastic bottle	1 l	6 pieces
961.023.2500	plastic bottle	2.5 l	4 pieces

961.024 *2-Propanol* - *For gas chromatography ECD and FID*

Specification

Appearance	Clear colorless liquid
Assay (GC)	≥ 99.8 %
Color	≤ 10 HU
Water (KF)	≤ 0.0005 %
Non volatile matter	≤ 0.0005 %
GC/ECD (retention range 1,2,4-trichlorobenzene to decachlorobiphenyl individual signal (lindane standard))	≤ 3 pg/ml
GC/FID (retention range n-undecane - n-tetracontane individual signals (n-(n-tetradecane standard))	≤ 3 ng/ml

catalogue number	packing specs	volume in pack	pack in box
961.024.2501	glass bottle	2.5 l	4 pieces

961.028 *2-Propanol* - *LC-MS*

Specification

Assay	≥ 99.95 %
Appearance	Clear colorless liquid
Color (APHA)	≤ 5
Water (Karl Fischer)	≤ 0.05 %
Residue after evaporation	≤ 0.0005 %
Acidity (as Acetic acid)	≤ 0.002 %
Alkalinity (as Ammonia)	≤ 0.0005 %
T210 nm	≥ 40 %
T220 nm	≥ 80 %
T230 nm	≥ 90 %
T250 nm	≥ 98 %
T260 nm	≥ 98 %
Grad. elution H.Peak at 235 nm	≤ 1 mAU
Grad. elution H.Peak at 254 nm	≤ 2 mAU
Ca (Calcium)	≤ 0.00001 %
K (Potassium)	≤ 0.00001 %
Mg (Magnesium)	≤ 0.00001 %
Na (Sodium)	≤ 0.00001 %
Pb (Lead)	≤ 0.00001 %
LC-MS suitability test	passes test

Filtered through 0.2 µm

catalogue number	packing specs	volume in pack	pack in box
961.028.2501	glass bottle	2.5 l	4 pieces

Pyronin B

- C.I NO: 45010
- $C_{42}H_{54}Cl_8Fe_2N_4O_2$
- CAS-No: 2150-48-3
- EC-No: 218-429-9
- EC index No: -
- M= 1042.22 g/mol
- Soluble in H_2O -
- Colour: Dark green
- Odour: -
- pH value -
- Melting point: 174 - 176°C
- -
- H-STATEMENT/EUH: -
- HS-CODE: 3204 1900
- LGK: -

961.D01 *Pyronin B* - *(C.I.45010)*

Specification

Appearance	Dark green powder
Absorption maxima	about 553 nm
Specific Absorptivity A1 % 1 cm (λmax;0.0003 %, ethanol 50 %)	≥ 1800

catalogue number	packing specs	weight in pack	pack in box
961.D01.0010	plastic bottle	10 g	6 pieces
961.D01.0025	plastic bottle	25 g	6 pieces
961.D01.0050	plastic bottle	50 g	6 pieces
961.D01.0100	plastic bottle	100 g	6 pieces

Rhodamine B



- C.I NO: 45170
- $C_{28}H_{31}ClN_2O_3$
- CAS-No: 81-88-9
- EC-No: 201-383-9
- EC index No: -
- M= 479.02 g/mol
- Soluble in H_2O Partially soluble in
- Colour: Dark green crystalline
- Odour: Odorless
- pH value Not applicable
- Melting point: 210 - 211°C
- Harmful
- H-STATEMENT/EUH: H318;302 / P280; 264;270;301+312;305+351+338;501
- HS-CODE: 3204 1300
- LGK: 10-13

964.D01 *Rhodamine B* - *(C.I.45170) for microscopy*

Specification

Appearance	Dark green crystalline powder	Loss on drying (110°C)	≤ 5 %
Absorption maxima in water	550 - 554 nm	Suitability for microscopy	passes test
Absorptivity (A 1 %/1cm; at λmax, pH 7, on dried substances)	≥ 2100		

catalogue number	packing specs	weight in pack	pack in box
964.D01.0010	plastic bottle	10 g	6 pieces
964.D01.0025	plastic bottle	25 g	6 pieces
964.D01.0050	plastic bottle	50 g	6 pieces
964.D01.0100	plastic bottle	100 g	6 pieces

Safranine



- C.I NO: 50240
- $C_{20}H_{19}ClN_4$
- CAS-No: 477-73-6
- EC-No: 207-518-8
- EC index No: -
- M= 350.85 g/mol
- Soluble in H_2O Soluble in water
- Colour: Dark greenish
- Odour: Pungent Odour
- pH value -
- Melting point: >240°C
- Irritant
- H-STATEMENT/EUH: H318 / P280; 305+351+338
- HS-CODE: 3204 1300
- LGK: 10-13

967.D01 *Safranine* - *(C.I.50240) for microscopy*

Specification

Appearance	Dark greenish coloured powder
Absorption maxima	530 - 534 nm
Absorptivity (A1 %, 1cm, λmax)	≥ 875
Ratio λmax ±15 nm	1.10 - 1.32
Loss on drying (110°C)	≤ 15 %

catalogue number	packing specs	weight in pack	pack in box
967.D01.0010	plastic bottle	10 g	6 pieces
967.D01.0025	plastic bottle	25 g	6 pieces
967.D01.0050	plastic bottle	50 g	6 pieces
967.D01.0100	plastic bottle	100 g	6 pieces

Salicylic acid



- $C_7H_6O_3$
- CAS-No: 69-72-7
- EC-No: 200-712-3
- EC index No: -
- M= 138.12 g/mol
- Vapor Pressure: <1 hPa (100°C)
- Specific density: 1.443 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 2 g/l (20°C)
- pH value 2.4 (H_2O) (saturated solution)
- Melting point: 157 - 159°C
- Bulk density: 400 - 500 kg/m³
- Boiling point: 211°C (1013 hPa)
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- harmful , irritant
- H-STATEMENT/EUH: H302;318 / P280;P305+351+338;313
- Test Type: LD50 oral rat ; LD50 dermal rat
- Results: 891 mg/kg ; 2000 mg/kg
- HS-CODE: 2918 21 00
- LGK: 10 - 13 ➤ Disposal: 3
- WGK: 1 ➤ UN: -

967.012 *Salicylic acid* - *Extra pure*

Specification

Appearance	White, crystalline powder
Assay	≥ 99.5 %
Residue on ignition	≤ 0.1 %
Heavy metals	≤ 0.002 %
Chloride (Cl)	≤ 0.01 %
Sulfate (SO_4)	≤ 0.03 %
Loss on drying	≤ 0.5 %
Phenol	≤ 0.05 %

catalogue number	packing specs	weight in pack	pack in box
967.012.0500	plastic bottle	500 g	6 pieces
967.012.1000	plastic bottle	1 kg	6 pieces

967.013 *Salicylic acid* - *Ph Eur, BP, USP*

Specification

Assay (calculated on dried substance)	99.5 - 100.5 %
Identity	passes test
Appearance of solution	passes test
Chloride (Cl)	≤ 0.01 %
Sulphate (SO_4)	≤ 0.02 %
Heavy metals (as Pb)	≤ 0.002 %
Related substances (4-Hydroxybenzoic acid)	≤ 0.1 %
Related substances (4-Hydroxyisophthalic acid)	≤ 0.05 %
Related substances (Phenol)	≤ 0.02 %
Related substances (Other impurities)	≤ 0.05 %
Related substances (Total impurities)	≤ 0.2 %
Residual solvents	passes test
Sulfated ash	≤ 0.01 %
Loss on drying	≤ 0.5 %

catalogue number	packing specs	weight in pack	pack in box
967.013.0500	plastic bottle	500 g	6 pieces
967.013.1000	plastic bottle	1 kg	6 pieces

Silica Gel

- O_2Si
- CAS-No: 112926-00-8
- EC-No: 231-545-4
- EC index No: -
- M= 60.08 g/mol
- Vapor Pressure: -
- Specific density: -
- Flash point: does not flash
- Soluble in H_2O at 20°C insoluble
- pH value 7 at 100 g/l 20°C
- Melting point: 1710°C
- Bulk density: -
- Boiling point: 2.230°C at 1.013 hPa
- Ignition temperature: not applicable
- Explosive limit: not applicable
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 dermal rabbit
- Results: > 5.000 mg/kg
- HS-CODE: 2811 22 00
- LGK: 10 - 13
- Disposal: 32
- WGK: - - UN: -

968.019 *Silica Gel 60 -* *For column chromatography 70-230 mesh*

Specification

Particle size distribution	70-230 mesh
Appearance	white powder
pH (100 g/L in %10 aqueous suspension)	6.7
Average pore diameter	60 Å
Specific surface area	500 m^2/g
Pore volume	0.75 ml/g
Ignition loss on anhydrous base at 1000°C for 2h	≤ 5.0 %

Moisture(at 105°C for 2h)	≤ 3.0 %
SiO_2 (on anhydrous base)	≥ 97 %
Fe (Iron)	0.02 %
Chloride (Cl)	0.004 %
Absorbing capacity of water	75 (±2) %

catalogue number	packing specs	weight in pack	pack in box
968.019.0500	plastic bottle	500 g	6 pieces
968.019.1000	plastic bottle	1 kg	6 pieces

968.029 *Silica Gel 60 -* *For column chromatography 230-400 mesh*

Specification

Particle size distribution	230 - 400 mesh
Appearance	white powder
pH (100 g/L in %10 aqueous suspension)	6.8
Average pore diameter	60 Å
Specific surface area	500 m^2/g
Pore volume	0.75 ml/g
Ignition loss on anhydrous base at 1000°C for 2h	1.8 %

Moisture(at 105°C for 2h)	≤ 3.0 %
SiO_2 (on anhydrous base)	≥ 97 %
Fe (Iron)	0.002 %
Chloride	0.004 %
Absorbing capacity of water	75 (±2) %

catalogue number	packing specs	weight in pack	pack in box
968.029.0500	plastic bottle	500 g	6 pieces
968.029.1000	plastic bottle	1 kg	6 pieces

Silver nitrate



- $AgNO_3$
- CAS-No: 7761-88-8
- EC-No: 231-853-9
- EC index No: 047-001-00-2
- M= 169.87 g/mol
- Vapor Pressure: -
- Specific density: 4.35 g/cm^3 (20°C)
- Flash point: not applicable
- Soluble in H_2O 2160 g/l (20°C)
- pH value 5.4 - 6.4 (100 g/l, H_2O, 20°C)
- Melting point: 212°C
- Bulk density: 2350 kg/m^3
- Boiling point: 444°C (1013 hPa)
- Ignition temperature: -
- Explosive limit: not applicable
- Viscosity kinematic: -
- Oxidizing, corrosive, dangerous for environment
- H-STATEMENT/EUH: H272;314;400;410 / P210;320;260;273;321;303+361+353;305+351+338;370+378;405
- Test Type: -
- Results: -
- HS-CODE: 2843 21 00 - LGK: 5.1 B
- Disposal: 27 - WGK: 3 - UN: 1493

968.046 *Silver nitrate -* *For analysis - ACS, ISO, Reag. Ph Eur*

Specification

Assay (argentometric, dried substance)	99.8 - 100.5 %
Identity	passes test
Acidity or alkalinity	passes test
Free Acid	passes test
Appearance of solution	passes test
Chloride (Cl)	≤ 0.0005 %
Sulphate (SO_4)	≤ 0.002 %
Cadmium (Cd)	≤ 0.0001 %
Copper (Cu)	≤ 0.0002 %

Iron (Fe)	≤ 0.0002 %
Manganese (Mn)	≤ 0.0005 %
Nickel (Ni)	≤ 0.0005 %
Lead (Pb)	≤ 0.001 %
Thallium (Tl)	≤ 0.001 %
Zinc (Zn)	≤ 0.0001 %
Copper and substance precipitated by NH_3 (Al,Bi, Cu, Pb)	passes test
Substances not precipitated by HCl	≤ 0.3 %

catalogue number	packing specs	weight in pack	pack in box
968.046.0051	glass bottle	50 g	6 pieces
968.046.0101	glass bottle	100 g	6 pieces
968.046.0251	glass bottle	250 g	6 pieces
968.046.1001	glass bottle	1 kg	6 pieces

Silver sulfate



- Ag_2SO_4
- CAS-No: 10294-26-5
- EC-No: 233-653-7
- EC index No: -
- M= 311.8 g/mol
- Vapor Pressure: -
- Specific density: 5.45 g/cm³ (20°C)
- Flash point: does not flash
- Soluble in H_2O 8 g/l (25°C)
- pH value 5 - 6 (5 g/l, H_2O, 25°C)
- Melting point: 655°C
- Bulk density: 1200 kg/m³
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- Irritant , dangerous for the environment
- H-STATEMENT/EUH: H318;410 / P280;273;305+351+338;313
- Test Type: LD50 oral rat
- Results: > 5.000 mg/kg
- HS-CODE: 2843 29 00
- LGK: 10 - 13 ➤ Disposal: 27
- WGK: 3 ➤ UN: 3077

968.055 *Silver sulfate* - *Gr for analysis - ACS*

Specification

Assay (argentometric)	≥ 98.5 %	Cu (Copper)	≤ 0.0005 %
Identity	passes test	Fe (Iron)	≤ 0.001 %
Insoluble matter and silver chloride	≤ 0.02 %	Pb (Lead)	≤ 0.001 %
Chloride (Cl)	≤ 0.001 %	Substances not precipitated	
Nitrate (NO_3)	≤ 0.001 %	by hydrochloric Acid (as SO_4)	≤ 0.03 %

catalogue number	packing specs	weight in pack	pack in box
968.055.0025	glass bottle	25 g	6 pieces
968.055.0101	glass bottle	100 g	6 pieces
968.055.0251	glass bottle	250 g	6 pieces
968.055.1001	glass bottle	1 kg	6 pieces

Sodium acetate anhydrous

- $C_2H_3NaO_2$
- CAS-No: 127-09-3
- EC-No: 204-823-8
- EC index No: -
- M= 82.03 g/mol
- Vapor Pressure: Not applicable
- Specific density: 1.52 g/cm³ (20°C)
- Flash point: > 250°C
- Soluble in H_2O 365 g/l (20°C)
- pH value 7.5 - 9.2 (20°C; 30 g/l)
- Melting point: 324°C
- Bulk density: -
- Boiling point: > 400 °C (decomposition)
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 oral rat
- Results: 3530 mg/kg
- HS-CODE: 2915 29 00
- LGK: 10 - 13 ➤ Disposal: -
- WGK: 3 ➤ UN: -

969.176 *Sodium acetate anhydrous* - *For analysis ACS, Reag.Ph Eur.*

Specification

Assay (titration with $HClO_4$)	≥ 99.0 %	Heavy metals (as Pb)	≤ 0.001 %
Identity	passes test	Al (Aluminium)	≤ 0.001 %
Appearance of solution	passes test	Ca (Calcium)	≤ 0.005 %
Insoluble matter	≤ 0.01 %	Cu (Copper)	≤ 0.0003 %
pH-value (5%; water)	7.0 - 9.2	Fe (Iron)	≤ 0.001 %
Chloride (Cl)	≤ 0.002 %	K (Potassium)	≤ 0.05 %
Phosphate (PO_4)	≤ 0.001 %	Mg (Magnesium)	≤ 0.002 %
Sulphate (SO_4)	≤ 0.003 %	Loss on drying (120°C)	≤ 1.0 %

catalogue number	packing specs	weight in pack	pack in box
969.176.0250	plastic bottle	250 g	6 pieces
969.176.0500	plastic bottle	500 g	6 pieces
969.176.1000	plastic bottle	1 kg	6 pieces

Sodium acetate trihydrate

- $CH_3COONa*3H_2O$
- CAS-No: 6131-90-4
- EC-No: 204-823-8
- EC index No: -
- M= 136.08 g/mol
- Vapor Pressure: not applicable
- Specific density: 1.45 g/cm³ (20°C)
- Flash point: > 250°C
- Soluble in H_2O 613 g/l (20°C)
- pH value 7.5 - 9.2 (50 g/l, H_2O, 20°C)
- Melting point: 58°C
- Bulk density: 900 kg/m³
- Boiling point: -
- Ignition temperature: 607°C
- Explosive limit: not applicable
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 oral rat ; LD50 dermal rabbit
- Results: 3530 mg/kg mg/kg; > 10000 mg/kg
- HS-CODE: 2915 29 00
- LGK: 10 - 13
- Disposal: 14
- WGK: 1 ➤ UN: -

969.013 *Sodium acetate trihydrate* - *Extra pure, Ph Eur, BP, JP, USP, FCC, E 262*

Specification

Assay (acid-base titration)	99.5 - 101.0 %	Fe (Iron)	≤ 0.0002 %
Identity	passes test	Hg (Mercury)	≤ 0.00001 %
Appearance of solution	passes test	Pb (Lead)	≤ 0.0002 %
In water insoluble matter	≤ 0.005 %	Heavy metals (as Pb)	≤ 0.0005 %
Alkalinity	≤ 0.05 %	Ca + Mg (calcium and magnesium)	passes test
Acidity or alkalinity	passes test	Acetic Acid	≤ 0.05 %
pH-value (1 %, water)	8.0 - 9.5	Reducing substances (as formic acid)	≤ 0.1 %
pH-value (5 %; water)	7.5 - 9.0	Substances reducing potassium permanganate (as HCOOH)	passes test
Chloride (Cl)	≤ 0.005 %	Loss on drying (130°C)	39.0 - 40.5 %
Sulphate (SO_4)	≤ 0.003 %		
Al (Aluminium)	≤ 0.00002 %		
As (Arsenic)	≤ 0.0002 %		

catalogue number	packing specs	weight in pack	pack in box
969.013.0500	plastic bottle	500 g	6 pieces
969.013.1000	plastic bottle	1 kg	6 pieces
969.013.5000	plastic bottle	5 kg	1 piece

969.016 *Sodium acetate trihydrate* - *For analysis ACS, ISO, Reag. Ph Eur*

Specification

Assay (titration with $HClO_4$)	99.5 - 101 %	As (Arsenic)	≤ 0.0002 %
Identity	passes test	Cd (Cadmium)	≤ 0.0005 %
Appearance of solution		Ca (Calcium)	≤ 0.001 %
(10 %. H_2O)	passes test	Cu (Copper)	≤ 0.0003 %
In water insoluble matter	≤ 0.005 %	Fe (Iron)	≤ 0.0005 %
pH (5 %. H_2O)	7.5 – 9.2	K (Potassium)	≤ 0.005 %
Chlorides (Cl)	≤ 0.0005 %	Mg (Magnesium)	≤ 0.0005 %
Phosphates (as PO_4)	≤ 0.0002 %	Pb (Lead)	≤ 0.0005 %
sulfates (SO_4)	≤ 0.002 %	Zn (Zinc)	≤ 0.0005 %
Total nitrogen (N)	≤ 0.001 %	Substances reducing $KMnO_4$	passes test
Heavy metals (as Pb)	≤ 0.0005 %	Loss on drying (130 °C)	39.0 - 40.5 %
Al (Aluminium)	≤ 0.0005 %		

catalogue number	packing specs	weight in pack	pack in box
969.016.0500	plastic bottle	500 g	6 pieces
969.016.1000	plastic bottle	1 kg	6 pieces

Sodium carbonate anhydrous



- CNa_2O_3
- CAS-No: 497-19-8
- EC-No: 207-838-8
- EC index No: 011-005-00-2
- M= 105.99 g/mol
- Vapor Pressure: -
- Specific density: 2.53 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 212.5 g/l (20°C)
- pH value 11.3 (10 g/l, 20°C)
- Melting point: 854°C
- Bulk density: 600 - 1100 kg/m³
- Boiling point: -
- Ignition temperature: not applicable
- Explosive limit: not applicable
- Viscosity kinematic: -
- irritant
- H-STATEMENT/EUH: H319;P305+351+338
- Test Type: LD50 oral rat ; LD50 dermal rabbit
- Results: 2800 mg/kg ; >2000 mg/kg
- HS-CODE: 2836 20 00
- LGK: 10 - 13
- Disposal: 14
- WGK: 1 ➤ UN: -

969.023 *Sodium carbonate anhydrous* - *Ph Eur, BP, JP, NF*

Specification

Assay (Na_2CO_3)	99.5 - 100.5 %	As (Arsenic)	≤ 0.0003 %
Appearance of solution	passes test	Fe (Iron)	≤ 0.001 %
Identity	passes test	Pb (Lead)	≤ 0.0002 %
Chloride (Cl)	≤ 0.0125 %	Hg (Mercury)	≤ 0.0001 %
Sulphate (SO_4)	≤ 0.003 %	Alkali hydroxides and bicarbonates	passes test
Heavy metals (as Pb)	≤ 0.001 %	Loss on drying (water)	≤ 0.5 %

catalogue number	packing specs	weight in pack	pack in box
969.023.0500	plastic bottle	500 g	6 pieces
969.023.1000	plastic bottle	1 kg	6 pieces
969.023.5000	plastic bottle	5 kg	1 piece

969.026 *Sodium carbonate anhydrous* - *For analysis ACS, ISO, Reag. Ph Eur*

Specification

Assay (acidimetric. on dried sample)	≥ 99.8 %	Ca (Calcium)	≤ 0.005 %
Insoluble in water	≤ 0.01 %	Heavy metals (as Pb)	≤ 0.0005 %
Chlorides (Cl)	≤ 0.001 %	Fe (Iron)	≤ 0.0005 %
Phosphates (as PO_4)	≤ 0.001 %	Pb (Lead)	≤ 0.0005 %
Silica (SiO_2)	≤ 0.005 %	Mg (Magnesium)	≤ 0.0005 %
Sulphur compounds (as SO_4)	≤ 0.003 %	K (Potassium)	≤ 0.005 %
Total nitrogen (N)	≤ 0.001 %	Ammonium hydroxide precipitate	≤ 0.01 %
Al (Aluminium)	≤ 0.001 %	Substances precipitable by Ca and Mg	≤ 0.01 %
As (Arsenic)	≤ 0.0001 %	Loss on drying (300°C)	≤ 1.0 %

catalogue number	packing specs	weight in pack	pack in box
969.026.0500	plastic bottle	500 g	6 pieces
969.026.1000	plastic bottle	1 kg	6 pieces

Sodium chloride

- NaCl
- CAS-No: 7647-14-5
- EC-No: 231-598-3
- EC index No: -
- M= 58.44 g/mol
- Vapor Pressure: 1.3 hPa at 865°C
- Specific density: 2.17 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 358 g/l (20°C)
- pH value 4.5 - 7.0 (100 g/l, H_2O, 20°C)
- Melting point: 801°C
- Bulk density: 1140 kg/m³
- Boiling point: 1461°C (1013 hPa)
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- -
- Test Type: LD50 oral rat ; LD50 dermal rabbit
- Results: 3000 mg/kg ; > 10000 mg/kg
- HS-CODE: 2501 00 91
- LGK: 10-13 ➤ Disposal: 14
- WGK: 1 ➤ UN: -

969.033 *Sodium chloride* - *Ph Eur, BP, USP, JP*

Specification

Appearance of solution	clear, colourless	Fe (Iron)	≤ 0.0002 %	TAMC	≤ 10 CFU/g
Acidity or alkalinity	passes test	Al (Aluminium)	≤ 0.00002 %	TYMC	≤ 10 CFU/g
Identification (Na^+)	positive	As (Arsenic)	≤ 0.0001 %		
Identification (Cl^-)	positive	K (Potassium)	≤ 0.05 %		
Assay	99.5 - 100.5 %	Ba (Barium)	≤ 0.001 %		
Br^- (Bromides)	≤ 0.01 %	Magnesium and alkaline-earth			
I^- (Iodides)	≤ 0.001 %	metals (calc. as Ca)	≤ 0.01 %		
Sulfate (SO_4)	≤ 0.02 %	Ferrocyanides	passes test		
Phosphate (PO_4)	≤ 0.0025 %	Insoluble matters	≤ 0.005 %		
Nitrite (NO_2)	≤ 0.01 abs	Loss on drying	≤ 0.5 %		
Heavy metals (as Pb)	≤ 0.0003 %	Bacterial Endotoxins	≤ 5 I.U/g		

catalogue number	packing specs	weight in pack	pack in box
969.033.0500	plastic bottle	500 g	6 pieces
969.033.1000	plastic bottle	1 kg	6 pieces
969.033.5000	plastic bottle	5 kg	1 piece

969.036 *Sodium chloride* - *For analysis - ACS, ISO, Reag. Ph Eur*

Specification

Assay (NaCl calc. on dried substance)	≥ 99.5 %	Nitrite (NO_2)	passes test	Magnesium and	
Identity	passes test	Phosphate (PO_4)	≤ 0.0005 %	alkaline-earth metals(as Ca)	≤ 0.01 %
Appearance of Solution	passes test	Sulphate (SO_4)	≤ 0.001 %	Loss on drying (water)	≤ 0.5 %
Acidity or Alkalinity	passes test	Heavy Metals (as Pb)	≤ 0.0005 %		
pH Value (5 %)	5.0 - 8.0 %	As (Arsenic)	≤ 0.00004 %		
Insoluble matter	≤ 0.005 %	Ba(Barium)	≤ 0.001 %		
Bromide (Br)	≤ 0.005 %	Ca (Calcium)	≤ 0.0015 %		
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	Cu (Copper)	≤ 0.0001 %		
Total nitrogen (N)	≤ 0.001 %	Fe (Iron)	≤ 0.00005 %		
Ferrocyanides	passes test	K (Potassium)	≤ 0.002 %		
Iodide (I)	≤ 0.002 %	Mg (Magnesium)	≤ 0.001 %		

catalogue number	packing specs	weight in pack	pack in box
969.036.0500	plastic bottle	500 g	6 pieces
969.036.1000	plastic bottle	1 kg	6 pieces
969.036.5000	plastic bottle	5 kg	1 piece

tri-Sodium citrate dihydrate

- $C_6H_5Na_3O_7*2H_2O$
- CAS-No: 6132-04-3
- EC-No: 200-675-3
- EC index No: -
- M= 294.10 g/mol
- Vapor Pressure: -
- Specific density: 1.86 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 720 g/l (25°C)
- pH value 7.5 - 9.0 (50 g/l, H_2O, 25°C)
- Melting point: 150°C (anhydrous substance)
- Bulk density: 600 kg/m³
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 oral rat
- Results: > 8000 mg/kg
- HS-CODE: 2918 15 00
- LGK: 10 - 13
- Disposal: 3
- WGK: 1 ➤ UN: -

969.046 *tri-Sodium citrate dihydrate* - *For analysis ACS, ISO, Reag. Ph Eur*

Specification

Assay	99.0 - 100.5 %	Sulphate (SO_4)	≤ 0.01 %		
Identity	passes test	Heavy metals (as Pb)	≤ 0.0005 %		
Appearance of solution	passes test	Ca (Calcium)	≤ 0.00014 %		
pH-value (5 %; water)	7.5 - 9.0	Fe (Iron)	≤ 0.00009 %		
Acidity or alkalinity	passes test	Readily carbonisable substance	passes test		
Cl (Chloride)	≤ 0.005 %	Water	11.0 - 13.0 %		
Oxalate (C_2O_4)	≤ 0.01 %				

catalogue number	packing specs	weight in pack	pack in box
969.046.0500	plastic bottle	500 g	6 pieces
969.046.1000	plastic bottle	1 kg	6 pieces
969.046.5000	plastic bottle	5 kg	1 piece

Sodium dihydrogen phosphate dihydrate

- $NaH_2PO_4*2H_2O$
- CAS-No: 13472-35-0
- EC-No: 231-449-2
- EC index No: -
- M= 156.02 g/mol
- Vapor Pressure: -
- Specific density: 1.915 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 850 g/l (20°C)
- pH value 4.1 - 4.5 (%5)
- Melting point: 60°C
- Bulk density: 1000 kg/m³
- Boiling point: not applicable
- Ignition temperature: not combustible
- Explosive limit: not applicable
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 oral rat ; LD50 dermal rabbit
- Results: 8290 mg/kg ; 7940 mg/kg
- HS-CODE: 2835 22 00
- LGK: 10 - 13 ➤ Disposal: 14
- WGK: 1 ➤ UN: -

969.053 *Sodium dihydrogen phosphate dihydrate* - *Ph Eur, BP, USP, JPE, E 339*

Specification

Assay (calculated on dried substance)	99.0 - 102.0 %	Heavy metals (as Pb)	≤ 0.0005 %	Loss on drying	22.0 - 24.0 %
Identity	passes test	Al, Ca and other elements detectable with ammonia	passes test	UV absorbances (280 nm, 1 mol/l)	≤ 0.05
Appearance of solution	passes test	As (Arsenic)	≤ 0.0001 %	Total Nitrogen (N)	≤ 0.001 %
pH-value (5 %; water)	4.2 - 4.5	Ca (Calcium)	≤ 0.005 %		
In water insoluble matter (calculated on dried substance)	≤ 0.01 %	Cd (Cadmium)	≤ 0.0001 %		
Chloride (Cl)	≤ 0.0005 %	Fe (Iron)	≤ 0.0005 %		
Fluoride (F)	≤ 0.001 %	Hg (Mercury)	≤ 0.0001 %		
Hydrogenphosphate (HPO_4)	≤ 0.5 %	K (Potassium)	≤ 0.005 %		
Sulphate (SO_4)	≤ 0.003 %	Pb (Lead)	≤ 0.0001 %		
		Reducing substances	passes test		

catalogue number	packing specs	weight in pack	pack in box
969.053.0500	plastic bottle	500 g	6 pieces
969.053.1000	plastic bottle	1 kg	6 pieces

Sodium disulfite



- $Na_2O_5S_2$
- CAS-No: 7681-57-4
- EC-No: 231-673-0
- EC index No: 016-063-00-2
- M= 190.11 g/mol
- Vapor Pressure: -
- Specific density: 1.40-1.48 g/cm³
- Flash point: not applicable
- Soluble in H_2O 540 g/l
- pH value 3.5 - 5 (50 g/l, H_2O, 20°C)
- Melting point: 150°C (decomposition)
- Bulk density: 1000 - 1200 kg/m³
- Boiling point: not applicable
- Ignition temperature: not applicable
- Explosive limit: not applicable
- Viscosity kinematic: -
- harmful, irritant
- H-STATEMENT/EUH: H302;318 / P280; 305 + 351 + 338;313
- Test Type: LD50 oral rat; LD50 dermal rat
- Results: 1540 mg/kg ; >2000 mg/kg
- HS-CODE: 2832 10 00
- LGK: 10 - 13 ➤ Disposal: 6
- WGK: 1 ➤ UN: -

969.073 *Sodium disulfite* - *Ph Eur, BP, JP, NF, E 223*

Specification

Assay ($Na_2S_2O_5$)	98.0 - 99.5 %	Heavy metals (as Pb)	≤ 0.001 %		
Assay (SO_2)	66.0 - 67.0 %	As (Arsenic)	≤ 0.00005 %		
Identity	passes test	Fe (Iron)	≤ 0.0005 %		
Appearance of solution	passes test	Hg (Mercury)	≤ 0.00001 %		
pH (10 % sol)	4.0 - 4.5	Pb (Lead)	≤ 0.00005 %		
Chloride (Cl)	≤ 0.005 %	Se (Selenium)	≤ 0.00005 %		

catalogue number	packing specs	weight in pack	pack in box
969.073.0500	plastic bottle	500 g	6 pieces
969.073.1000	plastic bottle	1 kg	6 pieces
969.073.5000	plastic bottle	5 kg	1 piece

969.076 *Sodium disulfite* - *For analysis ACS, Reag. Ph Eur.*

Specification

Assay ($Na_2S_2O_5$)	98.0 - 99.5 %	Heavy metals (as Pb)	≤ 0.001 %		
Identity	passes test	As (Arsenic)	≤ 0.00005 %		
Appearance of solution	passes test	Cd (Cadmium)	≤ 0.000005 %		
pH (10 % sol)	4.0 - 4.5	Fe (Iron)	≤ 0.0005 %		
Sodium Sulfite (Na_2SO_3)	≥ 1.5 %	Insoluble matter	0.0 %		
Sodium Sulfate (Na_2SO_4)	≥ 2.0 %	Sodium thiosulfate($Na_2S_2O_5$)	≤ 0.02 %		
Chloride (Cl)	≤ 0.005 %				

catalogue number	packing specs	weight in pack	pack in box
969.076.0100	plastic bottle	100 g	6 pieces
969.076.0500	plastic bottle	500 g	6 pieces
969.076.1000	plastic bottle	1 kg	6 pieces

Sodium hydrogen carbonate

- $CHNaO_3$
- CAS-No: 144-55-8
- EC-No: 205-633-8
- EC index No: -
- M= 84.01 g/mol
- Vapor Pressure: -
- Specific density: 2.22 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 96 g/l (20°C)
- pH value 8.6 (50 g/l, H_2O, 20°C)
- Melting point: 270°C (decomposition)
- Bulk density: 1000 kg/m³
- Boiling point: not applicable
- Ignition temperature: not applicable
- Explosive limit: not applicable
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 oral rat
- Results: 4220 mg/kg
- HS-CODE: 2836 30 00
- LGK: 10 - 13
- Disposal: 14
- WGK: 1 ➤ UN: -

969.103 *Sodium hydrogen carbonate* - *Ph Eur*

Specification

Assay (acidimetric; calculated on dried substance)	99.0 - 100.3 %
Identity	passes test
Appearance of solution	passes test
Insoluble matter	≤ 0.015 %
pH-value (5 %; water)	≤ 8.6
Carbonate (CO_3)	passes test
Chloride (Cl)	≤ 0.015 %
Sulphate (SO_4)	≤ 0.015 %

Sulfur compounds (as SO_4)	≤ 0.015 %
Heavy metals (as Pb)	≤ 0.0005 %
As (Arsenic)	≤ 0.0002 %
Ca (Calcium)	≤ 0.01 %
Cu (Copper)	≤ 0.0005 %
Fe (Iron)	≤ 0.002 %
Ammonium (NH_4)	≤ 0.002 %
Pb (Lead)	≤ 0.0005 %
Zn (Zinc)	≤ 0.0025 %

Loss on drying (Silica gel)	≤ 0.25 %

catalogue number	packing specs	weight in pack	pack in box
969.103.0500	plastic bottle	500 g	6 pieces
969.103.1000	plastic bottle	1 kg	6 pieces
969.103.2500	plastic bottle	2.5 kg	4 pieces

969.106 *Sodium hydrogen carbonate* - *For analysis ACS, Reag.Ph Eur*

Specification

Assay (acidimetric; calculated on dried substance)	99.7 - 100.3 %
Appearance of solution	passes test
Identity	passes test
Insoluble matter	≤ 0.015 %
pH-value (5 %; water)	≤ 8.6
Chloride (Cl)	≤ 0.002 %
Phosphate (PO_4)	≤ 0.001 %
Sulphate (SO_4)	≤ 0.015 %
Phosphate and Silicate (as SiO_2)	≤ 0.005 %
Sulfur compounds (as SO_4)	≤ 0.003 %

Total nitrogen (N)	≤ 0.0005 %
Ammonium (NH_4)	≤ 0.0005 %
Heavy metals (as Pb)	≤ 0.0005 %
As (Arsenic)	≤ 0.0002 %
Ca (Calcium)	≤ 0.01 %
Cu (Copper)	≤ 0.0002 %
Fe (Iron)	≤ 0.0005 %
K (Potassium)	≤ 0.005 %
Mg (Magnesium)	≤ 0.005 %
Pb (Lead)	≤ 0.0005 %
Iodine reducing matter (as I)	≤ 0.0065 %

Loss on drying (Silica gel)	≤ 0.2 %
Zn (Zinc)	≤ 0.0005 %

catalogue number	packing specs	weight in pack	pack in box
969.106.0500	plastic bottle	500 g	6 pieces
969.106.1000	plastic bottle	1 kg	6 pieces

di-Sodium hydrogen phosphate dihydrate

- $HNa_2O_4P*2H_2O$
- CAS-No: 10028-24-7
- EC-No: 231-448-7
- EC index No: -
- M= 177.99 g/mol
- Vapor Pressure: -
- Specific density: 1.52 - 2.66 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 93 g/l (20°C)
- pH value 8.7 - 9.4 (50 g/l, H_2O, 20°C)
- Melting point: 92.5 °C Elimination of water of crystallisation
- Bulk density: 850 - 1000 kg/m³
- Boiling point: -
- Ignition temperature: not applicable
- Explosive limit: not applicable
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 oral rat
- Results: > 2000 mg/kg
- HS-CODE: 2835 22 00
- LGK: 10 - 13
- Disposal: 14
- WGK: 1 ➤ UN: -

969.086 *di-Sodium hydrogen phosphate dihydrate* - *For analysis reagent grade, Reag. Ph Eur*

Specification

Assay (acidimetric)	≥ 99.5 %
Identity	passes test
Appearance of solution	passes test
pH-value (5 %; water)	9.0 - 9.2
Total nitrogen (N)	≤ 0.001 %
Ammonium (NH_4)	≤ 0.001 %
Heavy metals (as Pb)	≤ 0.001 %
arsenic (As)	≤ 0.0002 %

Cu (Copper)	≤ 0.0003 %
Fe (Iron)	≤ 0.001 %
K (Potassium)	≤ 0.005 %
Sodium dihydrogenphosphate (NaH_2PO_4)	≤ 1.7 %
Reducing substances	passes test
Loss on drying (130 °C)	19.5 - 21.0 %

catalogue number	packing specs	weight in pack	pack in box
969.086.0500	plastic bottle	500 g	6 pieces
969.086.1000	plastic bottle	1 kg	6 pieces

969.183 *di-Sodium hydrogen phosphate dihydrate* - *Ph Eur, BP, USP*

Specification

Assay (acidimetric. on dried sample)	98 - 100.5 %
Identity	passes test
Appearance of solution	passes test
Chlorides (Cl)	≤ 0.004 %
Sulphate (SO_4)	≤ 0.1 %
Heavy metals (as Pb)	≤ 0.002 %

As (Arsenic)	≤ 0.0004 %
Fe (Iron)	≤ 0.004 %
Sodium dihydrogen phosphate (NaH_2PO_4)	≤ 2.5 %
Reducing substances	passes test
Loss on drying (130 °C)	19.5 - 21.0 %

catalogue number	packing specs	weight in pack	pack in box
969.183.0500	plastic bottle	500 g	6 pieces
969.183.1000	plastic bottle	1 kg	6 pieces
969.183.5000	plastic bottle	5 kg	1 piece

di-Sodium hydrogen phosphate dodecahydrate

- $HNa_2O_4P*12H_2O$
- CAS-No: 10039-32-4
- EC-No: 231-448-7
- EC index No: -
- M= 358.14 g/mol
- Vapor Pressure: -
- Specific density: 1.52 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 218 g/l (20°C)
- pH value 9.0 - 9.3 (50 g/l, H_2O, 20°C)
- Melting point: 35°C
- Bulk density: 800 - 900 kg/m³
- Boiling point: -
- Ignition temperature: not applicable
- Explosive limit: not applicable
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 oral rat; LD50 dermal rat
- Results: > 2000 mg/kg; > 2000 mg/kg
- HS-CODE: 2835 22 00
- LGK: 10 - 13
- Disposal: 14
- WGK: 1 ➤ UN: -

969.096 *di-Sodium hydrogen phosphate dodecahydrate* - *For analysis ISO, Reag. Ph Eur*

Specification

Assay (alkalimetric)	99.0 - 102.0 %	Heavy metals (as Pb)	≤ 0.0005 %
Identity	passes test	As (Arsenic)	≤ 0.00005 %
Appearance of solution	passes test	Cu (Copper)	≤ 0.0002 %
Sodium dihydrogen phospate	≤ 2.5 %	Fe (Iron)	≤ 0.0005 %
pH-value (5 %; water)	9.0 - 9.3	K (Potassium)	≤ 0.005 %
Chloride (Cl)	≤ 0.0005 %	Pb (Lead)	≤ 0.0005 %
Sulphate (SO_4)	≤ 0.005 %	Reducing substances	passes test
Total nitrogen (N)	≤ 0.001 %	Water	57 – 61 %

catalogue number	packing specs	weight in pack	pack in box
969.096.0500	plastic bottle	500 g	6 pieces
969.096.1000	plastic bottle	1 kg	6 pieces
969.096.5000	plastic bottle	5 kg	1 piece

Sodium hydroxide



- NaOH
- CAS-No: 1310-73-2
- EC-No: 215-185-5
- EC index No: 011-002-00-6
- M= 40.00 g/mol
- Vapor Pressure: not applicable
- Specific density: 2.13 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 1090 g/l
- pH value 14 (100 g/l, H_2O, 20°C)
- Melting point: 318 - 323°C
- Bulk density: -
- Boiling point: 1390°C (1013 hPa)
- Ignition temperature: -
- Explosive limit: not applicable
- Viscosity kinematic: -
- Corrosive
- H-STATEMENT/EUH: H290;314 / P280; 264;321;303+361+353;305+351+338;310;405
- Test Type: -
- Results: -
- HS-CODE: 2815 11 00
- LGK: 8 B ➤ Disposal: 13
- WGK: 1 ➤ UN: 1823

969.112 *Sodium hydroxide* - *pellets pure*

Specification

Assay (acidimetric, NaOH)	≥ 99 %	Al (Aluminium)	≤ 0.002 %
Carbonate (as Na_2CO_3)	≤ 1.0 %	Ca (Calcium)	≤ 0.005 %
Chloride (Cl)	≤ 0.005 %	Copper (Cu)	≤ 0.0005 %
Nitrogen Compounds(N)	≤ 0.0005 %	Fe (Iron)	≤ 0.001 %
Phosphate (PO_4)	≤ 0.02 %	Ni (Nickel)	≤ 0.001 %
Silicate (SiO_2)	≤ 0.01 %	K (Potassium)	≤ 0.05 %
Sulphate (SO_4)	≤ 0.005 %	Heavy Metals (as Pb)	≤ 0.0005 %

catalogue number	packing specs	weight in pack	pack in box
969.112.0500	plastic bottle	500 g	6 pieces
969.112.1000	plastic bottle	1 kg	6 pieces

969.113 *Sodium hydroxide* - *pellets Ph Eur, BP, FCC, JP, NF, E 524*

Specification

Assay (acidimetric,NaOH)	≥ 98.0 %	Silicate (SiO_2)	≤ 0.01 %	Pb (Lead)	≤ 0.00005 %
Assay (total alkalinity calc. as NaOH)	98.0 - 100.5 %	Sulphate (SO_4)	≤ 0.003 %	Zn (Zinc)	≤ 0.0025 %
Identity	passes test	Total nitrogen (N)	≤ 0.0005 %		
Appearance of solution	passes test	Heavy metals (as Pb)	≤ 0.0005 %		
Insoluble substances and organic matter	passes test	Al (Aluminium)	≤ 0.001 %		
Carbonate (as Na_2CO_3)	≤ 0.5 %	As (Arsenic)	≤ 0.0003 %		
Chloride (Cl)	≤ 0.005 %	Cu (Copper)	≤ 0.0005 %		
Phosphate (PO_4)	≤ 0.002 %	Fe (Iron)	≤ 0.001 %		
		Hg (Mercury)	≤ 0.00001 %		
		K (Potassium)	≤ 0.1 %		

catalogue number	packing specs	weight in pack	pack in box
969.113.0500	plastic bottle	500 g	6 pieces
969.113.1000	plastic bottle	1 kg	6 pieces

Sodium nitrite



- $NNaO_2$
- CAS-No: 7632-00-0
- EC-No: 231-555-9
- EC index No: 007-010-00-4
- M= 69.00 g/mol
- Vapor Pressure: -
- Specific density: 2.17 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 820 g/l (20°C)
- pH value 9 (100 g/l, H_2O, 20°C)
- Melting point: 280°C
- Bulk density: 1200 kg/m³
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- Oxidising, Toxic, Dangerous for the environment
- H-STATEMENT/EUH: H272;301;319;400 / P273;305+351+338;308+310
- Test Type: LD50 oral rat
- Results: 180 mg/kg
- HS-CODE: 2834 10 00
- LGK: 5.1B ➤ Disposal: -
- WGK: 3 ➤ UN: 1500

969.123 *Sodium nitrite* - *Ph. Eur., BP, USP, FCC, E 250*

Specification

Assay (calc. to the dried substance)	99 - 100.5 %	Arsenic (As)	≤ 0.0002 %
Identity	passes test	Calcium (Ca)	≤ 0.005 %
Appearance of the solution	passes test	Mercury (Hg)	≤ 0.0001 %
Acidity or alkalinity	passes test	Lead (Pb)	≤ 0.0002 %
Chloride (Cl)	≤ 0.005 %	Residual solvents	passes test
Sulphate (SO_4)	≤ 0.01 %	Loss on drying (vacuum)	≤ 0.25 %
Heavy metals (as Pb)	≤ 0.001 %	Loss on drying (on silicagel, 4h)	≤ 0.2 %

catalogue number	packing specs	weight in pack	pack in box
969.123.0500	plastic bottle	500 g	6 pieces
969.123.1000	plastic bottle	1 kg	6 pieces

Sodium sulfate anhydrous

- Na_2O_4S
- CAS-No: 7757-82-6
- EC-No: 231-820-9
- EC index No: -
- M= 142.04 g/mol
- Vapor Pressure: not applicable
- Specific density: 2.70 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 200 g/l
- pH value 5.2 - 8.0 (50 g/l, H_2O, 20°C)
- Melting point: 884°C
- Bulk density: 1400 - 1600 kg/m³
- Boiling point: not applicable
- Ignition temperature: not applicable
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 oral rat
- Results: > 2000 mg/kg
- HS-CODE: 2833 11 00
- LGK: 10-13
- Disposal: 14
- WGK: 1 ➤ UN: -

969.146 *Sodium sulfate anhydrous* - *For analysis ACS, ISO, Reag. Ph Eur*

Specification

Assay (alkalimetric, calculated on dried substance)	≥ 99.5 %	Nitrogen compounds (as N)	≤ 0.0005 %	Reducing substances (O)	≤ 0.002 %
Identity	passes test	Heavy metals (as Pb)	≤ 0.0005 %	Oxidising substance	no reaction
Appearance of solution	passes test	As (Arsenic)	≤ 0.0001 %		
Acidity or alkalinity	passes test	Ca (Calcium)	≤ 0.005 %		
Insoluble matter	≤ 0.01 %	Cu (Copper)	≤ 0.0005 %		
Acidity (H_2SO_4)	≤ 0.01 %	Fe (Iron)	≤ 0.0005 %		
pH-value (5 %; water)	5.2 - 8.0	K (Potassium)	≤ 0.002 %		
Chloride (Cl)	≤ 0.001 %	Mg (Magnesium)	≤ 0.001 %		
Phosphate (PO_4)	≤ 0.001 %	Loss on drying (130°C)	≤ 0.5 %		
		Loss on ignition (800°C)	≤ 0.5 %		

catalogue number	packing specs	weight in pack	pack in box
969.146.0500	plastic bottle	500 g	6 pieces
969.146.1000	plastic bottle	1 kg	6 pieces

Sodium sulfite anhydrous

- Na_2SO_3
- CAS-No: 7757-83-7
- EC-No: 231-821-4
- EC index No: -
- M= 126.04 g/mol
- Vapor Pressure: not applicable
- Specific density: 2.63 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 220 g/l (20°C)
- pH value 8.8 - 10 (50 g/l, H_2O, 20°C)
- Melting point: > 500°C (decomposition)
- Bulk density: 1480 kg/m³
- Boiling point: decomposition
- Ignition temperature: not applicable
- Explosive limit: not applicable
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 oral rat
- Results: 2610 mg/kg
- HS-CODE: 2832 10 00
- LGK: 10-13
- Disposal: 6
- WGK: 1 ➤ UN: -

969.156 *Sodium sulfite anhydrous* - *For analysis Reag. Ph Eur*

Specification

Assay (Na_2SO_3)	≥ 98.0 %	Cd (Cadmium)	≤ 0.0001 %	Sodium Thiosulfate ($Na_2S_2O_3$)	≤ 0.02 %
Assay (SO_2)	≥ 49.8 %	Cr (Chromium)	≤ 0.0001 %		
Identity	passes test	Cu (Copper)	≤ 0.0001 %		
Appearance of solution	passes test	Fe (Iron)	≤ 0.001 %		
Free acid	passes test	Hg (Mercury)	≤ 0.00001 %		
Chloride (Cl)	≤ 0.003 %	Ni (Nickel)	≤ 0.0001 %		
Thiosulfate (S_2O_3)	≥ 0.1 %	Pb (Lead)	≤ 0.0001 %		
Heavy metals (as Pb)	≤ 0.001 %	Se (Selenium)	≤ 0.0001 %		
pH (10 % solution)	8.5 - 10.0	Sb (Antimony)	≤ 0.0002 %		
As (Arsenic)	≤ 0.0001 %	Zn (Zinc)	≤ 0.0001 %		

catalogue number	packing specs	weight in pack	pack in box
969.156.0500	plastic bottle	500 g	6 pieces
969.156.1000	plastic bottle	1 kg	6 pieces

Sodium thiosulfate anhydrous

- $Na_2O_3S_2$
- CAS-No: 7772-98-7
- EC-No: 231-867-5
- EC index No: -
- M= 158.11 g/mol
- Vapor Pressure: -
- Specific density: 1.67 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 701 g/l (20°C)
- pH value 6.0 - 8.5 (50 g/l, H_2O, 20°C)
- Melting point: -
- Bulk density: 1350 kg/m³
- Boiling point: -
- Ignition temperature: not applicable
- Explosive limit: not applicable
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD50 oral rat
- Results: > 5000 mg/kg
- HS-CODE: 2832 30 00
- LGK: 10-13
- Disposal: 3
- WGK: 1 ➤ UN: -

969.162 *Sodium thiosulfate anhydrous*

Specification

Assay (iodometric,on dried subs.)	≥ 98.0 %	Sulphide (S)	≤ 0.001 %
Identity	passes test	Calcium (Ca)	≤ 0.005 %
pH-value (5 %; water)	6.0 - 8.5	Heavy metals (as Pb)	≤ 0.002 %
Insoluble matter	≤ 0.01 %	Fe (Iron)	≤ 0.002 %
Sulphate & sulphite (SO_4)	≤ 0.5 %	Loss on drying	≤ 1.0 %

catalogue number	packing specs	weight in pack	pack in box
969.162.0250	plastic bottle	250 g	6 pieces
969.162.0500	plastic bottle	500 g	6 pieces
969.162.1000	plastic bottle	1 kg	6 pieces
969.162.2500	plastic bottle	2,5 kg	4 pieces

Starch

- $(C_6H_{10}O_5)n$
- CAS-No: 9005-84-9
- EC-No: 232-686-4
- EC index No: -
- M= -
- Vapor Pressure: -
- Specific density: 1.5 g/cm³
- Flash point: -
- Soluble in H_2O 50 g/l (90°C)
- pH value 5.0 - 7.0 (%2)
- Melting point: -
- Bulk density: 300 kg/m³
- Boiling point: -
- Ignition temperature: >380
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: -
- Results: -
- HS-CODE: 3505 10 90
- LGK: 10-13
- Disposal: 3
- WGK: 1 ➤ UN: -

970.012 *Starch* - *Soluble extra pure*

Specification

Appearance	Almost white powder	Colony count (Yeasts and moulds)	≤ 500 CFU/g
Sensitivity with Iodine solution	passes test	Salmonella species	absent in 10 g
Reducing substances	passes test	Staphylococcus aureus	absent in 1 g
Microbiological test	passes test	Pseudomonas aeruginosa	absent in 1 g
Colony count (aerobic bacteria)	≤ 5000 CFU/g	E.coli	absent in 1 g

catalogue number	packing specs	weight in pack	pack in box
970.012.0500	plastic bottle	500 g	6 pieces
970.012.1000	plastic bottle	1 kg	6 pieces

970.015 *Starch* - *Soluble GR for analysis ISO*

Specification

Appearance	White fine powder	Suitability as enzyme substrate (for amylases)	passes test
pH (2 % solution at 25°C)	5.0 - 7.0	Loss on drying at 105°C	≤ 10.0 %
Sensitivity Test	passes test	Mesh Size (passing through 60 mesh)	≤ 90.0 %
Reducing matter (as maltose)	≤ 0.7 %		
Sulphated ash	≤ 0.4 %		

catalogue number	packing specs	weight in pack	pack in box
970.015.0100	plastic bottle	100 g	6 pieces
970.015.0250	plastic bottle	250 g	6 pieces
970.015.0500	plastic bottle	500 g	6 pieces
970.015.1000	plastic bottle	1 kg	6 pieces

Sudan black B

- C.I NO: 26150
- $C_{29}H_{24}N_6$
- CAS-No: 4197-25-5
- EC-No: 224-087-1
- EC index No: -
- M= 456.54 g/mol
- Soluble in H_2O Insoluble in water
- Colour: Black
- Odour: Odorless
- pH value Not applicable
- Melting point: 120 - 124°C
- -
- H-STATEMENT/EUH: -
- HS-CODE: 3204 1600
- LGK: -

970.D01 *Sudan black B* - *(C.I.26150) for microscopy*

Specification

Appearance	Black powder	Loss on drying (50 °C/0.05 mm Hg)	≤ 5 %
Dye content	≥ 60 %	Suitability for microscopy	passes test
Absorption maximum (in ethanol 95 %)	596 - 605 nm		

catalogue number	packing specs	weight in pack	pack in box
970.D01.0010	plastic bottle	10 g	6 pieces
970.D01.0025	plastic bottle	25 g	6 pieces
970.D01.0050	plastic bottle	50 g	6 pieces
970.D01.0100	plastic bottle	100 g	6 pieces

Sudan III

- C.I NO: 26100
- $C_{22}H_{16}N_4O$
- CAS-No: 85-86-9
- EC-No: 201-638-4
- EC index No: -
- M= 352.39 g/mol
- Soluble in H_2O Insoluble in water
- Colour: Dark red powder
- Odour: Odorless
- pH value Not applicable
- Melting point: 199°C
- -
- H-STATEMENT/EUH: -
- HS-CODE: 3204 1900
- LGK: -

970.D02 *Sudan III* - *(C.I.26100) for microscopy*

Specification

Appearance	Dark red powder	Absorption maximum	508 - 512 nm
Dye content	≥ 85 %	Loss on drying (at 110°C)	≤ 2 %

catalogue number	packing specs	weight in pack	pack in box
970.D02.0010	plastic bottle	10 g	6 pieces
970.D02.0025	plastic bottle	25 g	6 pieces
970.D02.0050	plastic bottle	50 g	6 pieces
970.D02.0100	plastic bottle	100 g	6 pieces

Sudan IV



- C.I NO: 26105
- $C_{24}H_{20}N_4O$
- CAS-No: 85-83-6
- EC-No: 201-635-8
- EC index No: -
- M= 380.44 g/mol
- Soluble in H_2O Insoluble in water
- Colour: Dark red powder
- Odour: Odorless
- pH value Not applicable
- Melting point: 199°C
- Irritant
- H-STATEMENT/EUH: H319;315 / P280; 264;302+352;332+313;305+351+338;363
- HS-CODE: 3204 1600
- LGK: -

970.D03 *Sudan IV* - *(C.I.26105) for microscopy*

Specification

Appearance	Dark red powder	Absorption maximum in Toluene	520 - 523 nm

catalogue number	packing specs	weight in pack	pack in box
970.D03.0010	plastic bottle	10 g	6 pieces
970.D03.0025	plastic bottle	25 g	6 pieces
970.D03.0050	plastic bottle	50 g	6 pieces
970.D03.0100	plastic bottle	100 g	6 pieces

Sulfuric acid



- H_2O_4S
- CAS-No: 7664-93-9
- EC-No: 231-639-5
- EC index No: 016-020-00-8
- M= 98.08 g/mol
- Vapor Pressure: 0.0001 hPa (20°C)
- Specific density: 1.84 g/cm³ (20°C)
- Flash point: Not applicable
- Soluble in H_2O soluble at 20°C
- pH value 0.3 (49 g/l, H_2O, 25°C)
- Melting point: -20°C
- Bulk density: -
- Boiling point: 335°C at 1.013 hPa
- Ignition temperature: Not applicable
- Explosive limit: Not applicable
- Viscosity kinematic: -
- Corrosive
- H-STATEMENT/EUH: H290;314 / P280; 301+330+331;305+351+338;308+310
- Test Type: LD50 oral Rat
- Results: 2140 mg/kg
- HS-CODE: 2807 00 00 ➤ LGK: 8B
- Disposal: 12 ➤ WGK: 1
- UN: 1830

970.023 *Sulfuric acid 95-98 % -* *Ph Eur,BP,JPE,NF*

Specification

Assay (alkalimetric)	95.0 - 98.0 %	Fe (Iron)	≤ 0.0002 %		
Identity	passes test	NH_4 (Ammonium)	≤ 0.0005 %		
Appearance of solution	passes test	Pb (Lead)	≤ 0.0005 %		
Chloride (Cl)	≤ 0.0002 %	V (Vanadium)	≤ 0.0002 %		
Nitrate (NO_3)	≤ 0.0001 %	Substances reducing potassium permanganate (as SO_2)	≤ 0.001 %		
Nitrate (NO_3) (Ph Eur)	passes test	Residue on ignition	≤ 0.005 %		
Heavy metals (as Pb)	≤ 0.0005 %				
As (Arsenic)	≤ 0.00001 %				

catalogue number	packing specs	volume in pack	pack in box
970.023.2501	glass bottle	2.5 l	4 pieces

970.026 *Sulfuric acid 95-97 % -* *For determination of Hg, ACS Reagent, Reag. ISO, Reag. Ph. Eur.*

Specification

Assay	95 - 97 %	Iron (Fe)	≤ 0.00001 %	Zinc (Zn)	≤ 0.000005 %
Residue on ignition	≤ 0.0005 %	Germanium (Ge)	≤ 0.000005 %	Zirconium (Zr)	≤ 0.00001 %
Color	≤ 10 APHA	Mercury (Hg)	≤ 0.0000005 %	Chloride (Cl)	≤ 0.00001 %
Ammonium (NH_4)	≤ 0.0002 %	Potassium (K)	≤ 0.00001 %	Nitrate (NO_3)	≤ 0.00002 %
Silver (Ag)	≤ 0.000002 %	Lithium (Li)	≤ 0.000001 %	Phosphate (PO_4)	≤ 0.00005 %
Aluminium (Al)	≤ 0.000005 %	Magnesium (Mg)	≤ 0.000005 %	$KMnO_4$ red.matter (as SO_2)	≤ 0.0002 %
Arsenic (As)	≤ 0.000001 %	Manganese (Mn)	≤ 0.000001 %	$KMnO_4$ red.matter (as O)	≤ 0.0002 %
Barium (Ba)	≤ 0.000005 %	Molybdenum (Mo)	≤ 0.000002 %		
Beryllium (Be)	≤ 0.000001 %	Sodium (Na)	≤ 0.00005 %		
Bismuth (Bi)	≤ 0.000005 %	Nickel (Ni)	≤ 0.000002 %		
Calcium (Ca)	≤ 0.00002 %	Lead (Pb)	≤ 0.000002 %		
Cadmium (Cd)	≤ 0.000002 %	Strontium (Sr)	≤ 0.000002 %		
Cobalt (Co)	≤ 0.000001 %	Titanium (Ti)	≤ 0.00001 %		
Chromium (Cr)	≤ 0.000005 %	Thallium (Tl)	≤ 0.000005 %		
Copper (Cu)	≤ 0.000001 %	Vanadium (V)	≤ 0.000001 %		

catalogue number	packing specs	volume in pack	pack in box
970.026.2501	glass bottle	2.5 l	4 pieces

Tartrazine



- C.I NO: 19140
- $C_{16}H_9N_4Na_3O_9S_2$
- CAS-No: 1934-21-0
- EC-No: 217-699-5
- EC index No: -
- M= 534.36 g/mol
- Soluble in H_2O -
- Colour: Orange coloured powder
- Odour: Odorless
- pH value Not applicable
- Melting point: -
- Harmful
- H-STATEMENT/EUH: H319;334;317 / P285;280;261;264;272;302+352;305+351+338;304+341;333+313;342+311;363;501
- HS-CODE: 3212 9000
- LGK: -

971.D01 *Tartrazine - (C.I.19140) for microscopy*

Specification

Appearance	Orange colored powder	Absorptivity, 1cm, Imax	≥ 400
Absorption maxima in water	421 - 427 nm	Loss on drying (135°C)	≤ 15 %

catalogue number	packing specs	weight in pack	pack in box
971.D01.0010	plastic bottle	10 g	6 pieces
971.D01.0025	plastic bottle	25 g	6 pieces
971.D01.0050	plastic bottle	50 g	6 pieces
971.D01.0100	plastic bottle	100 g	6 pieces

Tetrahydrofuran



- C_4H_8O
- CAS-No: 109-99-9
- EC-No: 203-726-8
- EC index No: 603-025-00-0
- M= 72.11 g/mol
- Vapor Pressure: 200 hPa (20°C)
- Specific density: 0.89 g/cm3 (20°C)
- Flash point: -20°C
- Soluble in H_2O Fully miscible
- pH value 7-8 (200g/l; 20°C)
- Melting point: -108.5°C
- Bulk density: -
- Boiling point: 66°C
- Ignition temperature: 215°C
- Explosive limit: 1.5 - 12.4 % (V)
- Viscosity kinematic: -
- Irritant , flammable
- H-STATEMENT/EUH: H225;H302;319;351;335, EUH019 / P210;241;303+361+353;305+351+ 338;405+501
- Test Type: LD50 Oral Rat
- Results: 1650 mg/kg
- HS-CODE: 2932 11 00 ➤ LGK: 3
- Disposal: 1 ➤ WGK: 1 ➤ UN: 2056

972.017 *Tetrahydrofuran - For liquid chromatography*

Specification

Purity (GC)	≥ 99.9 %	Peroxide	≤ 0.02 %
Identity (IR)	passes test	Transmission (at 218 nm)	≥ 30 %
Evaporation residue	≤ 0.0001 %	Transmission (at 230 nm)	≥ 35 %
Water	≤ 0.02 %	Transmission (at 250 nm)	≥ 65 %
Acidity	≤ 0.0002 meq/g	Transmission (at 280 nm)	≥ 95 %
Alkalinity	≤ 0.0002 meq/g	Filtred by 0.2µm filter	

catalogue number	packing specs	volume in pack	pack in box
972.017.2501	glass bottle	2.5 l	4 pieces

972.027 *Tetrahydrofuran - Unstabilized HPLC-S*

Specification

Assay (GC, on anhydrous basis)	≥ 99.9 %	Water (KF)	≤ 0.02 %
Appearance	Clear colorless liquid	Peroxides (as H_2O_2)	≤ 0.01 %
T230 nm	≥ 35 %	Residue after evaporation	≤ 0.0002 %
T254 nm	≥ 70 %	Color (APHA)	≤ 10
T280 nm	≥ 95 %	Grad. elution H.Peak at 254 nm	≤ 0.01 AU
T300 nm	≥ 98 %	Grad. elution H.Peak at 280 nm	≤ 0.005 AU
Acidity (as Acetic acid)	≤ 0.002 %	Filtered through 0.2 µm	

catalogue number	packing specs	volume in pack	pack in box
972.027.2501	glass bottle	2.5 l	4 pieces

Tetra-n-butylammonium hydrogen sulfate

- $C_{16}H_{37}NO_4S$
- CAS-No: 32503-27-8
- EC-No: 251-068-5
- EC index No: -
- M= 339.54 g/mol
- Vapor Pressure: -
- Specific density: -
- Flash point: -
- Soluble in H_2O soluble at 20°C
- pH value 1 - 2 (100 g/l, H_2O, 20°C)
- Melting point: 168 - 174°C
- Bulk density: 650 kg/m^3
- Boiling point: -
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- Irritant
- H-STATEMENT/EUH: H315;319 / P302+352;305+351+338
- Test Type: -
- Results: -
- HS-CODE: 2923 90 00
- LGK: 10-13 ➤ Disposal: 3
- WGK: - ➤ UN: -

972.03P *Tetra-n-butylammonium hydrogen sulfate - For ion pair chromatography*

Specification

Assay (acidimetric; calculated on dried substance)	≥ 99 %	UV-transmission (220 nm; 0.005 mol/l; 1cm; water)	≥ 90 %
Identity (IR-spectrum)	passes test	UV-transmission (250 nm; 0.005 mol/l; 1cm; water)	≥ 98 %
pH-value (10 %; water)	≤ 2	Loss on drying (120°C, vacuum)	≤ 2 %
UV-transmission (200 nm; 0.005 mol/l; 1cm; water)	≥ 70 %		

catalogue number	packing specs	weight in pack	pack in box
972.03P.0051	glass bottle	50 g	4 pieces

lab chemicals & reagents

Toluene



- C_7H_8
- CAS-No: 108-88-3
- EC-No: 203-625-9
- EC index No: 601-021-00-3
- M= 92.14 g/mol
- Vapor Pressure: 29 hPa (20°C)
- Specific density: 0.87 g/cm³ (20°C)
- Flash point: 4°C
- Soluble in H_2O 0.52 g/l at 20°C
- pH value not applicable
- Melting point: -95°C
- Bulk density: -
- Boiling point: 110.6°C (1013 hPa)
- Ignition temperature: 535°C
- Explosive limit: 1.2 - 7 %(V)
- Viscosity kinematic: 0.7 mm²/s (20°C)
- Flammable , Harmful, Irritant
- H-STATEMENT/EUH: H225;304;315;336; 361d;373 / P210;240;301+330+331;302+352; 314; 403+233
- Test Type: LD50 Oral Rat ; LD50 rabbit
- Results: >2000 mg/kg; 12.223 mg/kg
- HS-CODE: 2902 30 00 ➤ LGK: 3
- Disposal: 1 ➤ WGK: 2 ➤ UN: 1294

973.014 *Toluene* - *For gas chromatography ECD and FID*

Specification

Appearance	Clear colorless liquid
Assay (GC)	≥ 99.8 %
Water	≤ 0.02 %
Non volatile matter	≤ 0.0005 %
Color	≤ 10 HU
GC/ECD(retention range 1,2,4-trichlorobenzene to decachlorobiphenyl individual signals (lindane standard))	≤ 3 pg/ml
GC/FID (retention range n-undecane - n-tetracontane individual signals (n-tetradecane standard))	≤ 3 ng/ml

catalogue number	packing specs	volume in pack	pack in box
973.014.2501	glass bottle	2.5 l	4 pieces

973.017 *Toluene* - *For liquid chromatography*

Specification

Purity (GC)	≥ 99.9 %
Identity (IR)	passes test
Evaporation residue	≤ 0.0002 %
Water	≤ 0.05 %
Acidity	≤ 0.0002 meq/g
Alkalinity	≤ 0.0006 meq/g
Transmission (at 300 nm)	≥ 70 %
Transmission (at 310 nm)	≥ 80 %
Transmission (at 350 nm)	≥ 98 %
Filtered by 0.2 µm filter	

catalogue number	packing specs	volume in pack	pack in box
973.017.2501	glass bottle	2.5 l	4 pieces

Toluidine blue O

- C.I NO: 52040
- $C_{15}H_{16}ClN_3S$
- CAS-No: 92-31-9
- EC-No: 202-146-2
- EC index No: -
- M= 305.82 g/mol
- Soluble in H_2O Partially soluble in
- Colour: Dark green powder
- Odour: -
- pH value Not applicable
- Melting point: -
- -
- H-STATEMENT/EUH: -
- HS-CODE: 3204 1300
- LGK: 10-13

973.D01 *Toluidine blue O* - *(C.I.52040) for microscopy*

Specification

Appearance	Dark green to very dark green or black green powder
Dye content (by spectrophotometry)	≥ 80 %
Absorption maximum in water	628 - 633 nm
Absorptivity (0.005g/l in H_2O)	≥ 1200
Solubility (0.1 %; water)	Clear solution
Loss on drying (110°C)	≤ 8 %

catalogue number	packing specs	weight in pack	pack in box
973.D01.0010	plastic bottle	10 g	6 pieces
973.D01.0025	plastic bottle	25 g	6 pieces
973.D01.0050	plastic bottle	50 g	6 pieces
973.D01.0100	plastic bottle	100 g	6 pieces

Trichloroacetic acid



- $C_2HCl_3O_2$
- CAS-No: 76-03-9
- EC-No: 200-927-2
- EC index No: 607-004-00-7
- M= 163.38 g/mol
- Vapor Pressure: 1.3 hPa (50°C)
- Specific density: 1.62 g/cm³ (20°C)
- Flash point: -
- Soluble in H_2O 1300 g/l (20°C)
- pH value <1 (50 g/l, H_2O, 20°C)
- Melting point: 54 - 58°C
- Bulk density: 900 kg/m³
- Boiling point: 197°C at 1.013 hPa
- Ignition temperature: -
- Explosive limit: not applicable
- Viscosity kinematic: -
- Corrosive, Dangerous for the environment
- H-STATEMENT/EUH: H314;335;410 / P273; 280;301+330+331;305+351+338;308+310
- Test Type: LD 50 oral rat
- Results: 3320 mg/kg
- HS-CODE: 2915 40 00
- LGK: 8B ➤ Disposal: 3
- WGK: 2 ➤ UN: 1839

974.016 *Trichloroacetic acid* - *For analysis ACS, Reag. Ph Eur.*

Specification

Assay (Acidimetric)	≥ 99.5 %
Identity (IR-spectrum)	passes test
Appearance of solution	passes test
In water insoluble matter	≤ 0.003 %
Chlorides (Cl)	≤ 0.002 %
Nitrate (NO_3)	≤ 0.002 %
Phosphate (PO_4)	≤ 0.0005 %
Sulphate (SO_4)	≤ 0.02 %
Heavy metals (as Pb)	≤ 0.002 %
Cu (Copper)	≤ 0.0005 %
Fe (Iron)	≤ 0.001 %
Pb (Lead)	≤ 0.002 %
Residue on ignition	≤ 0.03 %
Substances reducing $KMnO_4$	passes test
Substances darkened by H_2SO_4	passes test

catalogue number	packing specs	weight in pack	pack in box
974.016.0100	plastic bottle	100 g	6 pieces
974.016.0250	plastic bottle	250 g	6 pieces
974.016.0500	plastic bottle	500 g	6 pieces
974.016.1000	plastic bottle	1 kg	6 pieces

Triethylamine



- $C_6H_{15}N$
- CAS-No: 121-44-8
- EC-No: 204-469-4
- EC index No: 612-004-00-5
- M= 101.19 g/mol
- Vapor Pressure: 69 hPa at 20°C
- Specific density: 0.73 g/cm³ (20°C)
- Flash point: -11°C
- Soluble in H_2O 112 g/l at 20°C
- pH value 12.7 (100 g/l, H_2O, 15°C)
- Melting point: -115°C
- Bulk density: -
- Boiling point: 90°C (1013 hPa)
- Ignition temperature: 215°C
- Explosive limit: 1.2 - 9.3 %(V)
- Viscosity kinematic: -
- Flammable, Harmful, Corrosive
- H-STATEMENT/EUH: H225;302;314;311+331;335 / P210;240;280;301+330+331;302+352;304+340; 305+351+338;308+310;403+233
- Test Type: LD50 oral Rat; LD50 dermal Rabbit
- Results: 730 mg/kg ; 416 mg/kg
- HS-CODE: 2921 19 99 ➤ LGK: 3
- Disposal: - ➤ WGK: 1 ➤ UN: 1296

974.031 *Triethylamine* - *For synthesis*

Specification

Assay (GC, area %)	≥ 99.0 % (a/a)	Water (K. F.)	≤ 0.2 %
Identity (IR)	passes test		

catalogue number	packing specs	volume in pack	pack in box
974.031.1001	glass bottle	1 l	6 pieces

Trypan blue



- C.I NO: 23850
- $C_{34}H_{24}N_6Na_4O_{14}S_4$
- CAS-No: 72-57-1
- EC-No: 200-786-7
- EC index No: 611-030-00-4
- M= 960.79 g/mol
- Soluble in H_2O Soluble in water
- Colour: Dark blue crystalline
- Odour: -
- pH value Not applicable
- Melting point: > 300°C
- Toxic
- H-STATEMENT/EUH: H350 / P201;308+313
- HS-CODE: 3204 1400
- LGK: 6.1A

974.D01 *Trypan blue* - *(C.I.23850) for microscopy*

Specification

Appearance	Dark green to brown or brown-black powder, Crystalline powder or granule
Dye content (spectrophotometrically)	≥ 70 %

catalogue number	packing specs	weight in pack	pack in box
974.D01.0010	plastic bottle	10 g	6 pieces
974.D01.0025	plastic bottle	25 g	6 pieces
974.D01.0050	plastic bottle	50 g	6 pieces
974.D01.0100	plastic bottle	100 g	6 pieces

Trifluoroacetic acid 0.1 % in Water

- -
- CAS-No: -
- EC-No: -
- EC index No: -
- M= -
- Vapor Pressure: ≈ 23 hPa (17 mm Hg)
- Specific density: ≈ 1 g/cm³ (20°C)
- Flash point: Not applicable
- Soluble in H_2O Fully miscible
- pH value -
- Melting point: ≈ 0°C
- Bulk density: -
- Boiling point: ≈ 100°C
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: -
- Results: -
- HS-CODE: 2915 90 70
- LGK: 10-13 ➤ Disposal: 28
- WGK: -
- UN: -

974.068 *Trifluoroacetic acid 0.1 % in Water* - *LC-MS*

Specification

Assay (T)	0.093 - 0.107 %	Grad. elution H.Peak at 210 nm	≤ 0.05 AU	Filtered through 0.2µm
Appearance	Clear colorless liquid	Grad. elution H.Peak at 254 nm	≤ 0.002 AU	
Color (APHA, Pt-Co)	< 10	Grad. Elution drift at 254 nm	≤ 0.01 AU	
Purity of TFA	≥ 99.9 %	Ca (Calcium)	≤ 0.00005 %	
LC-MS suitability test	passes test	K (Potassium)	≤ 0.00005 %	
T210nm	≥ 25 %	Mg (Magnesium)	≤ 0.00005 %	
T230nm	≥ 85 %	Na (Sodium)	≤ 0.0002 %	
T254nm	≥ 99 %	Trace elements analysis	passes test	

catalogue number	packing specs	volume in pack	pack in box
974.068.2501	glass bottle	2.5 l	4

Urea

- CH_4N_2O
- CAS-No: 57-13-6
- EC-No: 200-315-5
- EC index No: -
- M= 60.06 g/mol
- Vapor Pressure: <0.01 hPa (20°C)
- Specific density: 1.34 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 1000 g/l (20°C)
- pH value 9 (100 g/l, H_2O, 20°C)
- Melting point: 133°C
- Bulk density: 720 - 760 kg/m³
- Boiling point: -
- Ignition temperature: not applicable
- Explosive limit: not applicable
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: LD 50 oral rat; LD 50 dermal rat
- Results: 8471 mg/kg ; >3200 mg/kg
- HS-CODE: 3105 10 00
- LGK: 10-13
- Disposal: 3
- WGK: 1 ➤ UN: -

978.015 *Urea* - *Crystal GR for analysis ACS*

Specification

Assay (DSC)	≥ 99.5 %	Biuret	≤ 0.05 %
Identity (IR-spectrum)	passes test	Residue on ignition (800 °C)	≤ 0.01 %
Appearance	passes test	Cu (Copper)	≤ 0.0002 %
Appearance of solution	passes test	Cyanides (CN)	≤ 0.000001 %
In water insoluble matter	≤ 0.005 %	Fe (Iron)	≤ 0.00002 %
Acidity (as HCl)	≤ 0.002 %	DNases, RNases, Proteases	non detected
Alkalinity (as NaOH)	≤ 0.01 %	Absorbance of an aqueous solution	
Ammonium (NH_4)	≤ 0.00001 %	8 M in a 1 cm cell at 260 nm	≤ 0.1 AU
Chloride (Cl)	≤ 0.0005 %	absorbance of an aqueous solution	
Sulfate (SO_4)	≤ 0.001 %	8 M in a 1 cm cell at 280 nm	≤ 0.1 AU
Heavy metals (as Pb)	≤ 0.0004 %		

catalogue number	packing specs	weight in pack	pack in box
978.015.0500	plastic bottle	500 g	6 pieces
978.015.1000	plastic bottle	1 kg	6 pieces

Victoria blue



- C.I NO: 44045
- $C_{33}H_{32}ClN_3$
- CAS-No: 2580-56-5
- EC-No: 219-943-6
- EC index No: -
- M= 506.08 g/mol
- Soluble in H_2O Soluble in hot water
- Colour: Brownish red powder
- Odour: Odorless
- pH value Not applicable
- Melting point: 206°C
- Harmful
- H-STATEMENT/EUH: H302;319;350;410 / P201;202;264;270;273;280
- HS-CODE: 3204 1300
- LGK: -
- UN: 3077

980.D01 *Victoria blue* - *(C.I.44045) for microscopy*

Specification

Appearance	Brownish red powder	Absorption max.	About 600 nm

catalogue number	packing specs	weight in pack	pack in box
980.D01.0010	plastic bottle	10 g	6 pieces
980.D01.0025	plastic bottle	25 g	6 pieces
980.D01.0050	plastic bottle	50 g	6 pieces
980.D01.0100	plastic bottle	100 g	6 pieces

Water

- H_2O
- CAS-No: 7732-18-5
- EC-No: 231-791-2
- EC index No: -
- M= 18.02 g/mol
- Vapor Pressure: 23 hPa (17 mm Hg)
- Specific density: 1 g/cm³ (20°C)
- Flash point: Not applicable
- Soluble in H_2O -
- pH value 6 - 8 (20°C)
- Melting point: 0°C (32°F)
- Bulk density: -
- Boiling point: 100°C (212°F)
- Ignition temperature: -
- Explosive limit: -
- Viscosity kinematic: -
- -
- H-STATEMENT/EUH: -
- Test Type: -
- Results: -
- HS-CODE: 2853 90 10
- LGK: 10-13 ➤ Disposal: 28
- WGK: -
- UN: -

983.018 *Water -* *LC-MS*

Specification

Appearance	Clear colorless liquid	Resistivity (at manuf.)	18.2-20 MohmXcm	Filtered through 0.2 µm
Color (APHA, Pt-Co)	< 5	Filter test	passes test	
Acidity (as Acetic acid)	≤ 0.0002 %	TOC	≤ 0.000003 %	
Alkalinity (as Ammonia)	≤ 0.0002 %	Ca (Calcium)	≤ 0.00001 %	
Residue after evaporation	≤ 0.0002 %	K (Potassium)	≤ 0.00001 %	
Grad. elution H.Peak at 210 nm	≤ 0.003 AU	Mg (Magnesium)	≤ 0.00001 %	
Grad. elution H.Peak at 254 nm	≤ 0.001 AU	Na (Sodium)	≤ 0.00001 %	

catalogue number	packing specs	volume in pack	pack in box
983.018.2501	glass bottle	2.5 l	4

Wright's stain



- C.I NO: -
- -
- CAS-No: 68988-92-1
- EC-No: -
- EC index No: -
- M= -
- Soluble in H_2O -
- Colour: Greenish black
- Odour: Odorless
- pH value Not applicable
- Melting point: -
- Harmful
- H-STATEMENT/EUH: H318;302;412 / P280;273;264;270;301+312;305+351+338;501
- HS-CODE: 3204 1900
- LGK: 10-13

986.D01 *Wright's stain -* *For microscopical staining*

Specification

Appearance	Greenish black/blue crystalline powder	Specific absorptivity at λ1	≥ 1100	
		Specific absorptivity at λ2	≥ 650	
Absorption maxima methanol (λ1)	640 - 648 nm	Loss on drying (at 110°C)	≤ 10 %	
Absorption maxima methanol (λ2)	522 - 525 nm	Suitability for microscopy	passes test	

catalogue number	packing specs	weight in pack	pack in box
986.D01.0010	plastic bottle	10 g	6 pieces
986.D01.0025	plastic bottle	25 g	6 pieces
986.D01.0050	plastic bottle	50 g	6 pieces
986.D01.0100	plastic bottle	100 g	6 pieces

Xylenes



- $C_6H_4(CH_3)_2$
- CAS-No: 1330-20-7
- EC-No: 215-535-7
- EC index No: -
- M= 106.17 g/mol
- Vapor Pressure: 45 hPa
- Specific density: 0.87 g/cm³ at 20 °C
- Flash point: 73 - 81°F (23 - 27°C)
- Soluble in H_2O 0.2 g/l
- pH value not applicable
- Melting point: > -48 °C
- Bulk density: -
- Boiling point: 136 - 145 °C at 1.013 hPa
- Ignition temperature: 432 - 530 °C
- Explosive limit: 1 - 8 %(V)
- Viscosity kinematic: 0.75 mm²/s at 25 °C
- Flammable, harmful, irritant
- H-STATEMENT/EUH: H226;304;312+332;315;319;335;336 / P210;233;241;260;280;301+310;303+361+353;305+351+338;314;370+378
- Test Type: LD50 oral Rat
- Results: 3523 mg/kg
- HS-CODE: 2902 44 00 ➤ LGK: 3
- Disposal: 1 ➤ WGK: 2 ➤ UN: 1307

990.019 *Xylenes*

Specification

Purity (Xylene isomers and ethylbenzol, GC)	99 - 100 %	Ethyl benzene (GC)	≤ 25 %
		Residue (evaporation)	≤ 0.002 %
		Infrared spectrum	passes test

catalogue number	packing specs	volume in pack	pack in box
990.019.2501	glass bottle	2.5 l	4 pieces

Zinc acetate dihydrate



- $C_4H_6O_4Zn*2\ H_2O$
- CAS-No: 5970-45-6
- EC-No: 209-170-2
- EC index No: -
- M= 219.49 g/mol
- Vapor Pressure: -
- Specific density: 1.74 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 430 g/l (20°C)
- pH value 6.0 - 7.0 (50 g/l, H_2O, 20°C)
- Melting point: 237°C
- Bulk density: 900 kg/m³
- Boiling point: not applicable
- Ignition temperature: -
- Explosive limit: not applicable
- Viscosity kinematic: -
- harmful, dangerous for the environment
- H-STATEMENT/EUH: H302;410 / P262;273
- Test Type: LD50 oral rat
- Results: 794 mg/kg
- HS-CODE: 2915 29 00
- LGK: 10-13
- Disposal: 3
- WGK: 1 ➤ UN: -

996.016 *Zinc acetate dihydrate* - *For analysis ACS*

Specification

Assay (complexometric)	99.5 - 101.0 %	Cd (Cadmium)	≤ 0.0002 %
Insoluble matter	≤ 0.005 %	Cu (Copper)	≤ 0.0005 %
pH-value (5 %; water)	6.0 - 7.0	Fe (Iron)	≤ 0.0005 %
Chloride (Cl)	≤ 0.0005 %	K (Potassium)	≤ 0.01 %
Sulphate (SO_4)	≤ 0.005 %	Mg (Magnesium)	≤ 0.005 %
Total nitrogen (N)	≤ 0.002 %	Na (Sodium)	≤ 0.001 %
Ca (Calcium)	≤ 0.001 %	Pb (Lead)	≤ 0.0005 %

catalogue number	packing specs	weight in pack	pack in box
996.016.0250	plastic bottle	250 g	6 pieces
996.016.0500	plastic bottle	500 g	6 pieces
996.016.1000	plastic bottle	1 kg	6 pieces

Zinc chloride



- $ZnCl_2$
- CAS-No: 7646-85-7
- EC-No: 231-592-0
- EC index No: 030-003-00-2
- M= 136.30 g/mol
- Vapor Pressure: 1.33 hPa (428°C)
- Specific density: 2.91 g/cm³ (25°C)
- Flash point: not applicable
- Soluble in H_2O 4320 g/l (25°C)
- pH value 5 (100 g/l, H_2O, 20°C)
- Melting point: 287°C
- Bulk density: 1400 - 1800 kg/m³
- Boiling point: 732°C (1013 hPa)
- Ignition temperature: not applicable
- Explosive limit: not applicable
- Viscosity kinematic: -
- Harmful, corrosive, dangerous for the environment
- H-STATEMENT/EUH: H302;314;410 / P273; 280;301+330+331;305+351+338;308+310
- Test Type: LD50 oral rat
- Results: 350 mg/kg
- HS-CODE: 2827 39 85
- LGK: 8 B ➤ Disposal: 14
- WGK: 3 ➤ UN: 2331

996.023 *Zinc chloride* - *Ph Eur, BP, USP*

Specification

Assay ($ZnCl_2$)	98.0 - 100.5 %	Fe (Iron)	≤ 0.001 %
Identity	passes test	K (Potassium)	≤ 0.15 %
Appearance of solution	passes test	Na (Sodium)	≤ 0.005 %
pH-value (10 %; water)	4.6 - 5.5	NH_4 (Ammonium)	≤ 0.04 %
Oxychlorides (as ZnO)	≤ 1.2 %	Pb (Lead)	≤ 0.005 %
Sulphate (SO_4)	≤ 0.01 %	Aluminium,Calcium,Magnesium,	
As (Arsenic)	≤ 0.0002 %	Heavy metals, Iron	passes test
Ca (Calcium)	≤ 0.01 %	Σ (Alkaline + Alkaline-Earth)	≤ 1.0 %

catalogue number	packing specs	weight in pack	pack in box
996.023.0500	plastic bottle	500 g	6 pieces
996.023.1000	plastic bottle	1 kg	6 pieces

996.026 *Zinc chloride* - *For analysis ACS, ISO, Reag. Ph Eur*

Specification

Assay ($ZnCl_2$)	98.0 - 100.5 %	Aluminium,Calcium,	
Identity	passes test	Magnesium,Heavy metals,Iron	passes test
Insoluble matter	≥ 0.01 %	Ca (Calcium)	≤ 0.001 %
pH-value (10 %; water)	4.6 - 5.5	Cd (Cadmium)	≤ 0.0005 %
Nitrate (NO_3)	≤ 0.003 %	Cu (Copper)	≤ 0.001 %
Oxychlorides (as ZnO)	≤ 1.20 %	Fe (Iron)	≤ 0.0005 %
Sulphate (SO_4)	≤ 0.002 %	K (Potassium)	≤ 0.02 %
Chlorides	51.0 - 52.3 %	Mg (Magnesium)	≤ 0.01 %
Zn	47.0 - 48.2 %	Na (Sodium)	≤ 0.005 %
		NH_4 (Ammonium)	≤ 0.005 %
		Pb (Lead)	≤ 0.001 %

catalogue number	packing specs	weight in pack	pack in box
996.026.0250	plastic bottle	250 g	6 pieces
996.026.0500	plastic bottle	500 g	6 pieces
996.026.1000	plastic bottle	1 kg	6 pieces

Zinc sulfate heptahydrate



- $ZnSO_4*7H_2O$
- CAS-No: 7446-20-0
- EC-No: 231-793-3
- EC index No: 030-006-00-9
- M= 287.54 g/mol
- Vapor Pressure: -
- Specific density: 1.97 g/cm³ (20°C)
- Flash point: not applicable
- Soluble in H_2O 965 g/l (20°C)
- pH value 4 - 6 (50 g/l, H_2O, 20°C)
- Melting point: 100°C
- Bulk density: 800 - 1000 kg/m³
- Boiling point: not applicable
- Ignition temperature: not applicable
- Explosive limit: not applicable
- Viscosity kinematic: -
- harmful, dangerous for the environment
- H-STATEMENT/EUH: H302;318;410 / P273; 280;305+351+338;313
- Test Type: LD50 oral rat
- Results: 1260 mg/kg
- HS-CODE: 2833 29 20
- LGK: 10-13 ➤ Disposal: 14
- WGK: 3 ➤ UN: 3077

996.032 *Zinc sulfate heptahydrate* - *Extra pure*

Specification

Assay	99.0 - 108.7 %
Appearance	Colourless, transparent prisms
Solubility	Very soluble in water. Freely soluble in glycerin, insoluble in ethanol.
Identification	Responds to the tests for zinc and sulphate

Acidity	passes test
As (Arsenic)	≤ 0.0014 %
Pb (Lead)	≤ 0.002 %
Alkali and alkaline earths	≤ 0.9 %

catalogue number	packing specs	weight in pack	pack in box
996.032.0500	plastic bottle	500 g	6 pieces
996.032.1000	plastic bottle	1 kg	6 pieces

996.036 *Zinc sulfate heptahydrate* - *For analysis ACS, ISO, Reag. Ph Eur*

Specification

Assay	99.5 - 103.0 %
Identity	passes test
Appearance of solution	passes test
Insoluble matter	≤ 0.01 %
Chloride (Cl)	≤ 0.0005 %
Total nitrogen (N)	≤ 0.0005 %
Nitrate (NO_3)	≤ 0.002 %
As (Arsenic)	≤ 0.00005 %
Ca (Calcium)	≤ 0.001 %

Cd (Cadmium)	≤ 0.0005 %
Cu (Copper)	≤ 0.0005 %
Fe (Iron)	≤ 0.0005 %
K (Potassium)	≤ 0.001 %
Mg (Magnesium)	≤ 0.001 %
Mn (Manganese)	≤ 0.0003 %
Na (Sodium)	≤ 0.001 %
NH_4 (Ammonium)	≤ 0.001 %
Pb (Lead)	≤ 0.001 %

catalogue number	packing specs	weight in pack	pack in box
996.036.0500	plastic bottle	500 g	6 pieces
996.036.1000	plastic bottle	1 kg	6 pieces

notes

notes

notes



ISOLAB
Laborgeräte GmbH

Bahnhofstrasse 10, D97877 Wertheim - Germany
Tel: +49 9342 912355 / Fax: +49 9342 912357
info@isolab.de

www.isolab.de