



# Kautex Packaging

## Bottles and Containers made of Plastic

Dear Reader, dear valued customer,

we are proud to present you our new catalogue „**KAUTEX PACKAGING - Bottles and Containers made of Plastic**“.

The catalogue has been given a completely new structure to give a better overview, so that the products you are looking for from our extensive delivery program can be found even quicker.

You can trust the traditional brand name „KAUTEX“ with a long tradition of high quality - and, in case you are not yet one of our customers - try us out!

Good products are continued and complemented, as well as modernised and improved further.

**We would like to bring the following new products to your attention:**

- Narrow neck bottle series 310 HDPE „SafeGrip“ - our classic bottle of this series with optimized handle for a safer and more practical usage, page 10.
- Narrow neck bottles series 310 HDPE - square, in sizes from 50-500 ml, page 11.
- Narrow neck bottles series 310 „ClearGrip“, 100-1000 ml, in highly transparent PP, with good chemical resistance, autoclavable, page 13.

Please find a complete overview of our „KAUTEX PACKAGING“ division on pages 22 and 23. Here you will also find important information about the characteristics and ranges of application of our products, including an extensive chemical resistance data sheet for plastics, starting on page 28.

We welcome your suggestions, look forward to your enquiries and of course to your orders.

**Your KAUTEX-Team**



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| Products                                                 |                |        |          |                    |      |
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| Narrow neck bottle „SafeGrip“ <b>with UN Approval</b>    | 2500           | 310    | HDPE     | natural/black      | 10   |
| Narrow neck bottles „SafeGrip“                           | 50 - 500       | 310    | HDPE     | natural            | 11   |
| Narrow neck bottles                                      | 250 - 1.000    | 310    | PVC      | transparent        | 12   |
| Narrow neck bottles                                      | 100 - 1.000    | 310    | HDPE     | natural            | 12   |
| Narrow neck bottles „ClearGrip“                          | 100 - 1.000    | 310    | PP       | highly transparent | 13   |
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| Wide neck jar, round, for tamper evident closure         | 250            | 376    | PP       | transparent        | 16   |
| Wide neck container, square                              | 100            | 310    | HDPE     | natural            | 16   |
| Wide neck jars, round                                    | 100 - 2.000    | 376    | HDPE     | natural            | 16   |
| Wide neck container, square, moulded hand-grip           | 2.300 / 4.400  | 311    | HDPE     | natural            | 17   |
| Multipurpose container, polygonal                        | 5.000 / 10.000 | 357    | HDPE     | natural            | 17   |
| Bucket, with spout, with graduation                      | 10 l / 15 l    | 610    | LDPE     | white              | 18   |
| Bucket, without spout, with graduation                   | 10 l           | 615    | LDPE     | white/dark grey    | 18   |
| Beaker, with hand grip and imprinted graduation          | 500 - 3.000    |        | PP       | natural            | 19   |
| Funnels                                                  | Ø 50 - 208     |        | HDPE     | natural            | 19   |
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| Carboys, imprinted graduation + accessories              | 5 l - 60 l     | 350    | HDPE     | natural            | 20   |
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| <b>General Information</b>                               |                |        |          |                    |      |
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## Narrow neck bottles series 301 LDPE - round, natural colour, with closure



Flexible, squeezable, with good shape-retaining properties, leakproof.

Also available with dropper cap or wash bottle closure.

### Application:

- \* dispensing \* adhesives \* sending samples
- \* transport \* storage

The packaging concept of Kautex for narrow, medium and wide neck laboratory bottles consists of consumer-optimized order units. Closures and bottles are packed together as one unit and can be ordered in an uncomplicated manner with one article number. This results in the following advantages for both dealers and end-users.

- \* one article number for bottle and closure
- \* better and clearer handling of the ordered goods
- \* dust-free and undamaged packaging
- \* easier and quicker to commission bottles and closures
- \* the end-user receives original packed merchandise

| Nominal capacity ml | A mm | B mm | C mm | D mm  | Mould no. | No. per case* pcs. | No. per packg. pcs. | Order no.  |
|---------------------|------|------|------|-------|-----------|--------------------|---------------------|------------|
| 10                  | 26   | 9,2  | 14   | 46,5  | 301-10    | 3200               | 100                 | 301-770500 |
| 20                  | 31,5 | 9,2  | 14   | 56,5  | 301-20    | 1800               | 100                 | 301-770501 |
| 30                  | 33,5 | 9,2  | 14   | 68,5  | 301-30    | 1400               | 100                 | 301-770502 |
| 50                  | 37,5 | 12,9 | 18   | 86    | 301-50    | 850                | 50                  | 301-770503 |
| 100                 | 47   | 12,9 | 18   | 105   | 301-100   | 480                | 20                  | 301-770504 |
| 200                 | 57,5 | 12,9 | 18   | 133   | 301-200   | 300                | 10                  | 301-770505 |
| 250                 | 61,3 | 19   | 25   | 140   | 301-250   | 210                | 10                  | 301-770506 |
| 500                 | 75   | 19   | 25   | 177   | 301-500   | 120                | 10                  | 301-770507 |
| 1000                | 97,5 | 21,5 | 28   | 223,5 | 301-1000  | 56                 | 4                   | 301-770508 |
| 2000                | 120  | 21,5 | 28   | 264   | 301-2000  | 30                 | -                   | 301-770509 |
| 3000                | 138  | 23,8 | 32   | 300   | 301-3000  | 20                 | -                   | 301-770510 |
| 5000                | 162  | 30,8 | 40   | 355   | 301-5000  | 10                 | -                   | 301-70511  |

\* Packaging unit / minimum ordering quantity

### Packaging concept:

- up to 100 ml: Closures are packed in a polybag which is included in the bottles polybag.
- ab 200 ml: Bottles are stretched in foil, corresponding number of closures in a separate polybag in the box.
- ab 2000 ml: Bottles packed loosely in the box with screwed-on closures.



|   |                                                                          |
|---|--------------------------------------------------------------------------|
| ① | <b>Dropper cap</b> with nozzle, natural colour                           |
| ② | <b>Captive cap PVC</b> , red                                             |
| ③ | <b>Wash bottle closure LDPE</b> , natural colour                         |
| ④ | <b>Screw closure LDPE</b> , natural colour (substitute, without picture) |

### Closures

| for bottle Nom. cap. ml | C mm | ① Order no. | ② Order no. | ③ Order no. | ④ Order no. |
|-------------------------|------|-------------|-------------|-------------|-------------|
| 10/20/30                | 14   | 455-72102   | 419-73350   | -           | 401-70603   |
| 50                      | 18   | 455-72101   | 419-73350   | -           | 401-70604   |
| 100                     | 18   | 455-72101   | 419-73350   | 409-75991   | 401-70604   |
| 200                     | 18   | 455-72101   | 419-73350   | 409-75992   | 401-70604   |
| 250                     | 25   | 455-72100   | 419-73350   | 409-70618   | 401-70605   |
| 500                     | 25   | 455-72100   | 419-73350   | 409-75993   | 401-70605   |
| 1000                    | 28   | 455-72103   | 406-72103   | 409-70619   | 401-70606   |
| 2000                    | 28   | 455-72103   | 406-72103   | 409-75994   | 401-70606   |
| 3000                    | 32   | -           | -           | -           | 401-70607   |

A = Diameter body B = Neck i.d. C = Cap size o.d. D = Height without closure



## Wide neck bottles series 303 LDPE - round, natural colour, with closure

The wide neck opening means that the bottles are easy to fill and clean, leakproof.

Ideal for liquids, pastes and granulates.

### Application:

- \* dispensing \* sending samples \* adhesives
- \* transport \* storage



| Nominal capacity ml | A mm | B mm | C mm | D mm | Mould no. | No. per case* pcs. | No. per packg. pcs. | Order no.  |
|---------------------|------|------|------|------|-----------|--------------------|---------------------|------------|
| 50                  | 39   | 23,8 | 32   | 76   | 303-50    | 650                | 50                  | 303-770528 |
| 100                 | 48   | 23,8 | 32   | 93,5 | 303-100   | 480                | 20                  | 303-770529 |
| 200                 | 59   | 30,8 | 40   | 114  | 303-200   | 300                | 10                  | 303-770530 |
| 250                 | 64   | 30,8 | 40   | 120  | 303-250   | 260                | 10                  | 303-770531 |
| 300                 | 67,5 | 30,8 | 40   | 128  | 303-300   | 180                | 10                  | 303-770532 |
| 500                 | 77   | 39,2 | 50   | 154  | 303-500   | 130                | 10                  | 303-770533 |
| 750                 | 88   | 39,2 | 50   | 173  | 303-750   | 90                 | 5                   | 303-770534 |
| 1000                | 95   | 50   | 65   | 205  | 303-1000  | 56                 | 4                   | 303-770535 |
| 1500                | 108  | 50   | 65   | 226  | 303-1500  | 40                 | 4                   | 303-770536 |
| 2000                | 120  | 50   | 65   | 247  | 303-2000  | 33                 | -                   | 303-770537 |

\* Packaging unit / minimum ordering quantity

### Screw closure LDPE (substitute)

| for bottle Nom. cap. ml | C mm | Order no. |
|-------------------------|------|-----------|
| 50/100                  | 32   | 401-70607 |
| 200/250/300             | 40   | 401-70608 |
| 500/750                 | 50   | 401-70609 |
| 1000/1500/2000          | 65   | 401-70610 |

## Wide neck bottles series 303 PP - round, natural colour, with graduation, with closure

Autoclavable up to 121° C.

Ideal for pastes, granulates and hot filled products.

Note: Before autoclaving screw off the closure and place it upside down on the bottle.

### Application:

- \* dispensing \* sending samples \* mailing
- \* transport \* storage



| Nominal capacity ml | A mm | B mm | C mm | D mm | Mould no. | No. per case* pcs. | No. per packg. pcs. | Order no.  |
|---------------------|------|------|------|------|-----------|--------------------|---------------------|------------|
| 100                 | 48,5 | 24,3 | 32   | 94   | 303-100   | 480                | 20                  | 303-783856 |
| 250                 | 64,5 | 30,9 | 40   | 121  | 303-250   | 260                | 10                  | 303-783859 |
| 500                 | 77,5 | 39,9 | 50   | 155  | 303-500   | 130                | 10                  | 303-783852 |
| 1000                | 96   | 50,8 | 65   | 205  | 303-1000  | 56                 | 4                   | 303-783855 |

\* Packaging unit / minimum ordering quantity

### Screw closure PP (substitute)

| for bottle Nom. cap. ml | C mm | Order no. |
|-------------------------|------|-----------|
| 100                     | 32   | 401-83789 |
| 250                     | 40   | 401-83792 |
| 500                     | 50   | 401-83791 |
| 1000                    | 65   | 401-83790 |

A = Diameter body B = Neck i.d. C = Cap size o.d. D = Height without closure

## Wide neck wash bottles series 303 LDPE - round, natural colour, printed-on hazard-symbols



Laboratory safety wash bottles with printed-on hazard symbols and substances of content in German, English and French language, leakproof.

Abrasion-resistant printing.

Completely emptied by sliding delivery tube, even when inverted.

### Application:

- \* The delivery nozzle is designed to give an accurate fine controlled stream of liquid.

### Safety:

If the delivery tube is raised above the liquid surface then temperature variations will not cause liquid to escape.

Tip with safety tubing.

| Nom. cap. ml                                                                                                 | A mm | B mm | C mm | D mm | Mould no. | No. per case* pcs. | No. per packg. pcs. | Order no.  |
|--------------------------------------------------------------------------------------------------------------|------|------|------|------|-----------|--------------------|---------------------|------------|
| <b>ACETON, ACETONE, with included wash bottle closure LDPE, cap red</b>                                      |      |      |      |      |           |                    |                     |            |
| 250                                                                                                          | 64   | 30,8 | 40   | 120  | 303-250   | 150                | 10                  | 303-770020 |
| 500                                                                                                          | 77   | 39,2 | 50   | 154  | 303-500   | 100                | 10                  | 303-770025 |
| <b>ETHANOL, with included wash bottle closure LDPE, cap green</b>                                            |      |      |      |      |           |                    |                     |            |
| 250                                                                                                          | 64   | 30,8 | 40   | 120  | 303-250   | 150                | 10                  | 303-770016 |
| 500                                                                                                          | 77   | 39,2 | 50   | 154  | 303-500   | 100                | 10                  | 303-770021 |
| <b>ISOPROPANOL, 2-PROPANOL, with included wash bottle closure LDPE, cap yellow</b>                           |      |      |      |      |           |                    |                     |            |
| 250                                                                                                          | 64   | 30,8 | 40   | 120  | 303-250   | 150                | 10                  | 303-770017 |
| 500                                                                                                          | 77   | 39,2 | 50   | 154  | 303-500   | 100                | 10                  | 303-770022 |
| <b>METHANOL, with included wash bottle closure LDPE, cap orange</b>                                          |      |      |      |      |           |                    |                     |            |
| 250                                                                                                          | 64   | 30,8 | 40   | 120  | 303-250   | 150                | 10                  | 303-770018 |
| 500                                                                                                          | 77   | 39,2 | 50   | 154  | 303-500   | 100                | 10                  | 303-770023 |
| <b>DESTILLIERTES WASSER, DISTILLED WATER, EAU DESTILLE, with included wash bottle closure LDPE, cap blue</b> |      |      |      |      |           |                    |                     |            |
| 250                                                                                                          | 64   | 30,8 | 40   | 120  | 303-250   | 150                | 10                  | 303-770019 |
| 500                                                                                                          | 77   | 39,2 | 50   | 154  | 303-500   | 100                | 10                  | 303-770024 |

\* Packaging unit / minimum ordering quantity



Delivery tube natural colour with coloured cap



Printed-on hazard-symbols and substances of content, with memo field

## Wide neck bottles series 303 LDPE - round, brown colour, with closure

Helps to protect light sensitive materials against UV-light-transmission.

Ideal for high-viscosity media, powders, granulates and pastes, leakproof.

The wide neck opening means that the bottles are easy to fill and clean

### Application:

- \* dispensing \* sending samples \* mailing
- \* transport \* storage



| Nominal capacity ml | A mm | B mm | C mm | D mm | Mould no. | No. per case* pcs. | No. per packg. pcs. | Order no.  |
|---------------------|------|------|------|------|-----------|--------------------|---------------------|------------|
| 50                  | 39   | 23,8 | 32   | 76   | 303-50    | 650                | 50                  | 303-784583 |
| 100                 | 48   | 23,8 | 32   | 93,5 | 303-100   | 480                | 20                  | 303-784584 |
| 250                 | 64   | 30,8 | 40   | 120  | 303-250   | 260                | 10                  | 303-784585 |
| 500                 | 77   | 39,2 | 50   | 154  | 303-500   | 130                | 10                  | 303-784586 |
| 1000                | 95   | 50   | 65   | 205  | 303-1000  | 56                 | 4                   | 303-784587 |

\* Packaging unit / minimum ordering quantity

### Screw closure LDPE, brown (substitute)

| for bottle Nom. cap. ml | C mm | Order no. |
|-------------------------|------|-----------|
| 50/100                  | 32   | 401-84579 |
| 250                     | 40   | 401-84578 |
| 500                     | 50   | 401-84577 |
| 1000                    | 65   | 401-84576 |

## Medium neck bottle series 307 HDPE - round, natural colour, with graduation, with closure

Multi-purpose bottles for laboratories and industry.

Good chemical resistance.

Stamped contents scale.

The neck opening means that the bottles are easy to fill and clean, leakproof.

PP screw closure.

### Application:

- \* dispensing \* sending samples \* mailing
- \* transport \* storage



| Nominal capacity ml | A mm | B mm | C mm | D mm  | Mould no. | No. per case* pcs. | No. per packg. pcs. | Order no.  |
|---------------------|------|------|------|-------|-----------|--------------------|---------------------|------------|
| 100                 | 46   | 19   | 25   | 99,5  | 307-100   | 480                | 20                  | 307-770066 |
| 250                 | 61   | 24   | 28   | 129,5 | 307-250   | 250                | 10                  | 307-770067 |
| 500                 | 77   | 30,8 | 40   | 161   | 307-500   | 140                | 10                  | 307-770070 |
| 1000                | 97   | 39,2 | 50   | 203   | 307-1000  | 64                 | 4                   | 307-770073 |

\* Packaging unit / minimum ordering quantity

### Screw closure PP, natural colour (substitute)

| for bottle Nom. cap. ml | C mm | Order no. |
|-------------------------|------|-----------|
| 100                     | 25   | 401-84398 |
| 250                     | 28   | 401-84542 |
| 500                     | 40   | 401-83792 |
| 1000                    | 50   | 401-83791 |

A = Diameter body B = Neck i.d. C = Cap size o.d. D = Height without closure

## High shoulder bottles series 302 LDPE - round, natural colour



High narrow shape, leakproof.

Easy handling.

Also available with dropper cap or wash bottle closure.

### Application:

- \* dispensing \* adhesives \* sending samples
- \* transport \* storage



| Nominal capacity ml | A mm | B mm | C mm | D mm  | Mould no. | No. per case* pcs. | No. per packg. pcs. | Order no. |
|---------------------|------|------|------|-------|-----------|--------------------|---------------------|-----------|
| 50                  | 36,5 | 12,9 | 18   | 82    | 302-50    | 900                | 150                 | 302-70512 |
| 100                 | 44,5 | 12,9 | 18   | 98,5  | 302-100   | 420                | 70                  | 302-70513 |
| 250                 | 60   | 19   | 25   | 127,5 | 302-250   | 264                | -                   | 302-70514 |
| 500                 | 75,5 | 19   | 25   | 160   | 302-500   | 124                | -                   | 302-70515 |
| 1000                | 95   | 21,5 | 28   | 196   | 302-1000  | 72                 | -                   | 302-70517 |

\* Packaging unit / minimum ordering quantity

|   |                                                              |
|---|--------------------------------------------------------------|
| ① | <b>Dropper closure LDPE</b> , with nozzle, natural colour    |
| ② | <b>Captive cap PVC</b> , red                                 |
| ③ | <b>Wash bottle closure LDPE</b> , natural colour             |
| ④ | <b>Screw closure LDPE</b> , natural colour (without picture) |

### Closures

| for bottle Nom. cap. ml | C mm | ① Order no. | ② Order no. | ③ Order no. | ④ Order no. |
|-------------------------|------|-------------|-------------|-------------|-------------|
| 50                      | 18   | 455-72101   | 419-73350   | -           | 401-70604   |
| 100                     | 18   | 455-72101   | 419-73350   | 409-75991   | 401-70604   |
| 250                     | 25   | 455-72100   | 419-73350   | 409-70618   | 401-70605   |
| 500                     | 25   | 455-72100   | 419-73350   | 409-75993   | 401-70605   |
| 1000                    | 28   | 455-72103   | 419-73350   | 409-70619   | 401-70606   |

## Round bottle series 308 HDPE - natural colour



Hinged lid closure, for single-handed use.

PP screw closure.

Ideal for cosmetic products, e.g. emulsions, shampoos, shower gels, creams and as a refill packaging.

### Application:

- \* packaging \* storage \* transport

A = Diameter body B = Neck i.d. C = Cap size o.d. D = Height without closure



## Round bottles series 308 HDPE - natural colour

### Round bottles series 308 HDPE, natural colour

| Nominal capacity ml | A mm | B mm | C mm | D mm  | Mould no. | No. per case* pcs. | No. per packg. pcs. | Order no. |
|---------------------|------|------|------|-------|-----------|--------------------|---------------------|-----------|
| 50                  | 32   | 17   | 22   | 86    | 308-239   | 900                | 150                 | 308-76399 |
| 100                 | 41   | 17   | 22   | 108,5 | 308-142   | 792                | -                   | 308-73084 |
| 250                 | 56   | 17   | 22   | 135,5 | 308-143   | 324                | -                   | 308-73085 |
| 500                 | 70   | 19,4 | 25   | 173   | 308-144   | 148                | -                   | 308-73086 |
| 1000                | 89   | 19,4 | 25   | 211,5 | 308-145   | 72                 | -                   | 308-73087 |

\* Packaging unit / minimum ordering quantity

### Closures

| for bottle Nom. cap. ml | C mm | ① Order no. | ② Order no. |
|-------------------------|------|-------------|-------------|
| 50/100/250              | 22   | 805-73182   | 805-73090   |
| 500/1000                | 25   | 805-73089   | 805-73091   |



Hinged closure PP, white



Closure with lip seal PP, white

## Dropping bottles series 302 HDPE - round, natural colour

Bottle with dropping tip and separate screw closure. After being cut off the dropping tip can be resealed and does not leak.

Stable and handy shape.

Suitable for adhesives and many other products.



### Application:

\* packaging \* dispensing \* dropping

| Nominal capacity ml | A mm | B mm | C mm | D mm | Mould no. | No. per case* pcs. | No. per packg. pcs. | Order no. |
|---------------------|------|------|------|------|-----------|--------------------|---------------------|-----------|
| 10                  | 24   | 12,7 | 18   | 50   | 302-21A   | 4000               | 100                 | 302-99529 |
| 25                  | 31,3 | 12,7 | 18   | 64,5 | 302-16E   | 2000               | 100                 | 302-92676 |
| 50                  | 40   | 12,7 | 18   | 77   | 302-12D   | 1100               | 100                 | 302-81015 |

\* Packaging unit / minimum ordering quantity

### Combination closure HDPE, with screw-on dropping tip

| for bottle Nom. cap. ml | C mm | Order no. |
|-------------------------|------|-----------|
| 10/25/50                |      | 805-83700 |

## Narrow neck bottles series 310 HDPE - square, natural colour and white



Square cross-section.

Recessed labelling field.

Four different types of closures available.

Ideal for liquids, leakproof.

### Application:

- \* packaging \* sending samples
- \* transport \* storage

### Narrow neck bottles series 310 HDPE, natural colour and white

| Nominal capacity ml | A mm      | B mm | C mm | D mm | Mould no. | No. per case* pcs. | Order no. natural col. | Order no. white |
|---------------------|-----------|------|------|------|-----------|--------------------|------------------------|-----------------|
| 100                 | 45 x 45   | 17   | 32   | 108  | 310-53 A  | 544                | 310-83970              | 310-84000       |
| 250                 | 60 x 60   | 17   | 32   | 136  | 310-54 A  | 247                | 310-83971              | 310-83994       |
| 500                 | 74 x 74   | 17   | 32   | 170  | 310-55 A  | 122                | 310-83972              | 310-83991       |
| 1000                | 85 x 85   | 17   | 32   | 221  | 310-56 A  | 72                 | 310-83973              | 310-83992       |
| 2500                | 122 x 122 | 28   | 45   | 272  | 310-57 E  | 27                 | 310-71149              | 310-82553       |

\* Packaging unit / minimum ordering quantity



### Screw closures PP

- |   |                                                                                           |
|---|-------------------------------------------------------------------------------------------|
| ① | red, with pull-off ring and PE-foam insert                                                |
| ② | blue, with pull-off ring and conical seal                                                 |
| ③ | white/blue, child-resistant, with tamper evident ring and conical seal                    |
| ④ | white/red, child-resistant, with tamper evident ring, conical seal and degassing membrane |
| ⑤ | Degassing closure, red, with tamper evident ring and venting liner (without picture)      |

### Screw closures PP

| for bottle Nom. cap. ml | C mm | ① Order no. | ② Order no. | ③ Order no. | ④ Order no. | ⑤ Order no. |
|-------------------------|------|-------------|-------------|-------------|-------------|-------------|
| 10 - 1000               | 32   | 805-84006   | 805-83951   | 805-84200   | 805-84201   | 805-85590   |
| 2500                    | 45   | 805-84005   | 805-76305   | -           | -           | -           |

## UN-Wide neck bottles series 310 HDPE - square, natural colour and white

The wide neck opening means that the bottles are easy to fill and clean.

Square cross-section.

Recessed labelling field.

Three different types of closures available.

Ideal for liquids, pastes and granulates.

### Application:

- \* packaging \* sending samples
- \* transport \* storage

Available ex stock with UN approval for solids. The approvals are only valid with the closures offered here.

**UN approved**  
for solids



### Wide neck bottles series 310 HDPE, natural colour and white

| Nominal capacity ml | A mm      | B mm | C mm | D mm  | Mould no. | No. per case* pcs. | UN approval   | Order no. natural col. | Order no. white |
|---------------------|-----------|------|------|-------|-----------|--------------------|---------------|------------------------|-----------------|
| 50                  | 36 x 36   | 21,4 | 28   | 88,5  | 310-115   | 700                | -             | 310-76398              | 310-84193       |
| 100                 | 45 x 45   | 24   | 32   | 101   | 310-88    | 612                | UN 3H1/X0.3/S | 310-73094              | 310-79206       |
| 250                 | 59 x 59   | 35   | 45   | 129,5 | 310-86    | 273                | UN 3H1/X0.8/S | 310-73095              | 310-79207       |
| 350                 | 60 x 60   | 35   | 45   | 164   | 310-46    | 190                | -             | 310-71138              | -               |
| 500                 | 75 x 75   | 42,5 | 54   | 162   | 310-89    | 124                | UN 3H1/X1.5/S | 310-73096              | 310-79209       |
| 750                 | 83 x 83   | 42,5 | 54   | 188   | 310-48    | 90                 | UN 3H1/X2.5/S | 310-71140              | 310-79210       |
| 1000                | 85 x 85   | 42,5 | 54   | 214   | 310-85    | 81                 | UN 3H1/X2.5/S | 310-73097              | 310-79211       |
| 1500                | 108 x 108 | 68,5 | 80   | 209   | 310-93    | 42                 | UN 3H1/X4/S   | 310-73624              | 310-79212       |
| 2500                | 122 x 122 | 68,5 | 80   | 260   | 310-51    | 27                 | UN 3H1/X5/S   | 310-71143              | 310-79213       |
| 4000                | 142 x 142 | 68,5 | 80   | 294   | 310-52    | 15                 | UN 3H1/X5.5/S | 310-71144              | 310-79214       |

\* Packaging unit / minimum ordering quantity

|   |                                                                          |
|---|--------------------------------------------------------------------------|
| ① | Screw closure PP, black, with PE-foam insert                             |
| ② | Screw closure PP, blue, with tamper evident ring and conical seal        |
| ③ | Screw closure PP, red, with tamper evident ring and PE-foam insert       |
| ④ | Wrench: A tool suitable for all sizes of closures<br>Order no. 805-85102 |

| for bottle<br>Nom. cap.<br>ml | C<br>mm | ①<br>Order no. | ②<br>Order no. | ③<br>Order no. |
|-------------------------------|---------|----------------|----------------|----------------|
| 50                            | 28      | 805-71150      | 805-976304     | 805-84198      |
| 100                           | 32      | 805-971152     | 805-73826      | 805-83761      |
| 250/350                       | 45      | 805-971153     | 805-76306      | 805-83783      |
| 500/750/1000                  | 54      | 805-971898     | 805-73199      | 805-83691      |
| 1500/2500/4000                | 80      | 805-971155     | 805-73775      | 805-83762      |



A = Dimension cross section body B = Neck i.d. C = Cap size o.d. D = Height without closure

## UN Narrow neck bottles series 308/310 HDPE - natural colour and black



Narrow neck bottles with UN approval.

Particularly suitable for filling and transport of hazardous liquids.

Recessed labelling field with sizes 1000 and 2500 ml.

Three different types of closures available.

### Application:

- \* packaging \* sending samples
- \* mailing \* storage

### UN Narrow neck bottles series 308/310 HDPE, natural colour and black

| Nominal capacity ml | A mm      | B mm | C mm | D mm  | Weight g | Mould no. | No. per case* pcs. | UN approval     | Order no. natural col. | Order no. black |
|---------------------|-----------|------|------|-------|----------|-----------|--------------------|-----------------|------------------------|-----------------|
| 500                 | 77 x 77   | 28,7 | 45   | 176,5 | 52       | 308-257   | 120                | UN 1H1/X1.9/250 | 308-84464              | 308-770096      |
| 1000                | 96 x 96   | 28,7 | 45   | 211,8 | 92       | 310-135   | 64                 | UN 3H1/X1.9/250 | 310-84152              | 310-770097      |
| 2500                | 127 x 127 | 28,7 | 45   | 282   | 167      | 310-136   | 26                 | UN 3H1/X1.9/250 | 310-84153              | 310-84486       |

\* Packaging unit / minimum ordering quantity



Optimized handle for safe and comfortable handling.

Due to the increased size of the handle this new product guarantees stability and security in handling dangerous media with a high specific weight.

### Application:

- \* packaging \* sending samples \* transport
- \* mailing \* storage

### Narrow neck bottle series 310 "SafeGrip" HDPE, natural colour and black

| Nominal capacity ml | A mm      | B mm | C mm | D mm | Weight g | Mould no. | No. per case* pcs. | UN approval     | Order no. natural col. | Order no. black |
|---------------------|-----------|------|------|------|----------|-----------|--------------------|-----------------|------------------------|-----------------|
| 2500                | 127 x 127 | 28,7 | 45   | 294  | 190      | 310-137   | 25                 | UN 3H1/X1.9/250 | 310-85405              | 310-85681       |

\* Packaging unit / minimum ordering quantity

**Please note:** The approvals can be requested here: [Sales.STVP@kautex.textron.com](mailto:Sales.STVP@kautex.textron.com). The approvals are only valid with the closures offered here on the next page.



## Closures for narrow neck bottles series 308/310 HDPE and „SafeGrip“ 2500 ml

### Closures for narrow neck bottles series 308/310 HDPE and narrow neck bottle series 310 „SafeGrip“ 2500 ml

| for bottle<br>Nom. cap.<br>ml | C<br>mm | ①<br>Order no. | ②<br>Order no. | ③<br>Order no. |
|-------------------------------|---------|----------------|----------------|----------------|
| 500 - 2500                    | 45      | 805-84183      | 805-84162      | 805-84182      |

|   |                                                                                                                 |
|---|-----------------------------------------------------------------------------------------------------------------|
| ① | <b>Screw closure HDPE, black</b> , with tamper evident ring and PTFE cup seal                                   |
| ② | <b>Blister closure PP, black</b> , with tamper evident ring PP, red, with PTFE cup seal                         |
| ③ | <b>Blister closure PP, red</b> , with tamper evident ring PP, red, with venting system and perforated PTFE seal |



## Narrow neck bottles „SafeGrip“ series 310 HDPE - natural colour

Square shape for safe and comfortable handling.

The neck of this new bottle series has been adapted to the standard glass closure DIN 32.

### Application:

- \* packaging \* sending samples
- \* mailing \* storage \* transport



### Narrow neck bottles „SafeGrip“ series 310 HDPE, natural colour

| Nominal capacity ml | A mm    | B mm | C mm | D mm | Mould no. | No. per case* pcs. | Order no. |
|---------------------|---------|------|------|------|-----------|--------------------|-----------|
| 50                  | 40 x 40 | 18,6 | 32   | 79   | 310-143   | 850                | 310-85939 |
| 100                 | 46 x 46 | 18,6 | 32   | 108  | 310-144   | 450                | 310-85938 |
| 250                 | 60 x 60 | 18,6 | 32   | 136  | 310-145   | 234                | 310-85939 |
| 500                 | 75 x 75 | 18,6 | 32   | 169  | 310-146   | 150                | 310-85940 |

\* Packaging unit / minimum ordering quantity

### Screw closure PP, blue, with PTFE-insert and tamper evident ring

| for bottle<br>Nom. cap.<br>ml | C<br>mm | Order no. |
|-------------------------------|---------|-----------|
| 50 - 500                      | 32      | 805-85941 |

## Narrow neck bottles series 310 PVC - rectangular, transparent



Crystal clear presentation for your product.  
Ripped sides for secure grip.  
Leakproof.

### Application:

\* packaging \* sending samples  
\* storage \* mailing

| Nominal capacity ml | A mm        | B mm | C mm | D mm  | Mould no. | No. per case* pcs. | Order no. |
|---------------------|-------------|------|------|-------|-----------|--------------------|-----------|
| 250                 | 59 x 38     | 19,9 | 25   | 151,5 | 310-63    | 390                | 310-71490 |
| 500                 | 70 x 50     | 19,9 | 25   | 189   | 310-19    | 194                | 310-71106 |
| 1000                | 87,5 x 61,0 | 19,9 | 25   | 233   | 310-20    | 106                | 310-71107 |

\* Packaging unit / minimum ordering quantity

| Closures                |      |             |             |
|-------------------------|------|-------------|-------------|
| for bottle Nom. cap. ml | C mm | ① Order no. | ② Order no. |
| 250 - 1000              | 25   | 805-71704   | 805-74185   |

- ① Compression moulded closure, melamine, white
- ② Screw closure PP, with nozzle, white

## Narrow neck bottles series 310 HDPE - rectangular, natural colour



Ribbed sides for secure grip.  
High stability.  
Leakproof.  
Four different types of closures (can also be used with wash bottle closure, see page 2).

### Application:

\* packaging \* dispensing  
\* storage \* mailing

| Nom. cap. ml | A mm        | B mm | C mm | D mm  | Mould no. | No. per case* pcs. | No. per packg. pcs. | Order no. |
|--------------|-------------|------|------|-------|-----------|--------------------|---------------------|-----------|
| 100          | 40,5 x 32,0 | 12,9 | 18   | 110,5 | 310-100   | 648                | 108                 | 310-70520 |
| 250          | 53,5 x 42,5 | 19   | 25   | 148   | 310-250   | 381                | -                   | 310-70521 |
| 500          | 63,5 x 54,5 | 19   | 25   | 180   | 310-500   | 205                | -                   | 310-70522 |
| 1000         | 84 x 66     | 19   | 25   | 222,5 | 310-1000  | 108                | -                   | 310-70523 |

\* Packaging unit / minimum ordering quantity

- ① Screw closure LDPE, natural colour
- ② Compression moulded cap, melamine, black
- ③ Dropper cap LDPE, natural colour, with nozzle
- ④ Captive cap PVC, red

| Closures                |      |             |             |
|-------------------------|------|-------------|-------------|
| for bottle Nom. cap. ml | C mm | ① Order no. | ② Order no. |
| 100                     | 18   | 401-70604   | 805-71159   |
| 250 - 1000              | 25   | 401-70605   | 805-71160   |
| for bottle Nom. cap. ml | C mm | ③ Order no. | ④ Order no. |
| 100                     | 18   | 455-72101   | 419-73350   |
| 250 - 1000              | 25   | 455-72100   | 419-73350   |

## Narrow neck bottles series 310 „ClearGrip“ - made of highly transparent PP

Glass-like transparency & glaze (ideal for product presentations).

Low weight, outstanding chemical resistance and thermal stability, balanced stiffness and impact resistance, autoclavable up to 121°C.

Low carbon footprint, easily recyclable.

Note: Before autoclaving screw off the closure and place it upside down on the bottle.

### Application:

- \* packaging \* sending samples
- \* presentation \* transport



### Narrow neck bottles series 310, made of highly transparent PP

| Nominal capacity ml | A mm    | B mm | C mm | D mm | Mould no. | No. per case* pcs. | Order no. |
|---------------------|---------|------|------|------|-----------|--------------------|-----------|
| 100                 | 46 X 46 | 18,6 | 32   | 108  | 310 148   | 512                | 310-86456 |
| 250                 | 60 X 60 | 18,6 | 32   | 136  | 310 149   | 247                | 310-86457 |
| 500                 | 75 X 75 | 28,6 | 45   | 169  | 310 150   | 132                | 310-86458 |
| 1000                | 94 X 94 | 28,6 | 45   | 204  | 310 151   | 64                 | 310-86459 |

### Verschluss PP, weiß, mit PTFE-Einlage und Originalitätsring

| for bottle<br>Nominal capacity ml | C mm | Mould no. | No. per case*/pcs. | Order no. |
|-----------------------------------|------|-----------|--------------------|-----------|
| 100 - 250                         | 32   | 805 397   | 1200               | 805-86336 |
| 500 - 1000                        | 45   | 805 316   | 550                | 805-86356 |

\* Packaging unit / minimum ordering quantity

## Wide neck bottles series 310 HDPE - square, natural colour

The wide neck means easy filling, emptying and cleaning.

Ribbed sides for a secure grip.

Square labelling field.

Square shape for an optimal space utilisation.

### Application:

- \* packaging \* storage
- \* transport



| Nominal capacity ml | A mm        | B mm | C mm | D mm  | Mould no. | No. per case* pcs. | Order no. |
|---------------------|-------------|------|------|-------|-----------|--------------------|-----------|
| 250                 | 59 x 59     | 30,8 | 40   | 110,5 | 310W-250  | 294                | 310-70538 |
| 500                 | 69 x 69     | 30,8 | 40   | 145,5 | 310W-500  | 164                | 310-70539 |
| 1000                | 86,5 x 86,5 | 39,2 | 50   | 178,5 | 310W-1000 | 90                 | 310-70540 |

\* Packaging unit / minimum ordering quantity

### Screw closure LDPE, natural colour

| for bottle<br>Nom. cap. ml | C mm | Order no. |
|----------------------------|------|-----------|
| 250/500                    | 40   | 401-70608 |
| 1000                       | 50   | 401-70609 |

A = Dimension cross section body B = Neck i.d. C = Cap size o.d. D = Height without closure

## Wide neck containers series 310 PVC - square, transparent and brown-transparent



Chrystal-clear for an excellent product presentation.

Brown-transparent for light-sensitive media.

Due to the wide neck opening the containers are easy to fill and to clean.

Black closure with PE-foam insert, leakproof.

### Application:

- \* Packaging \* dispensing \* sending samples
- \* storage \* Mailing

Wide neck containers series 310 PVC, transparent and brown-transparent

| Nominal capacity ml | A mm        | B mm | C mm | D mm | Mould no. | No. per case* pcs. | No. per packg. pcs. | Order no. transparent | Order no. brown-transparent |
|---------------------|-------------|------|------|------|-----------|--------------------|---------------------|-----------------------|-----------------------------|
| 50                  | 38,5 x 38,5 | 23   | 32   | 59   | 310-26    | 972                | 162                 | 310-70595             | 310-70697                   |
| 100                 | 46 x 46     | 31   | 40   | 71   | 310-27    | 480                | 80                  | 310-70596             | 310-70698                   |
| 200                 | 59,5 x 59,5 | 41   | 50   | 87   | 310-28    | 406                | -                   | 310-70597             | 310-70699                   |
| 300                 | 67,5 x 67,5 | 41   | 50   | 94   | 310-42    | 300                | -                   | 310-71080             | 310-71081                   |
| 500                 | 80,5 x 80,5 | 54   | 65   | 108  | 310-31    | 162                | -                   | 310-70598             | 310-70700                   |
| 750                 | 91,5 x 91,5 | 69   | 80   | 120  | 310-43    | 114                | -                   | 310-71082             | 310-71083                   |
| 1000                | 97 x 97     | 69   | 80   | 143  | 310-32    | 96                 | -                   | 310-70599             | 310-70701                   |
| 2000                | 122 x 122   | 69   | 80   | 187  | 310-94A   | 44                 | -                   | 310-73352             | 310-73353                   |

\* Packaging unit / minimum ordering quantity

## Wide neck containers series 310 PETG - square, transparent



Crystal-clear for an excellent product presentation.

Due to the wide neck opening the containers are easy to fill and to clean.

Black closure with PE-foam insert, leakproof.

This container is also suitable as a sales or gift packaging.

### Application:

- \* packaging \* dispensing \* sending samples
- \* storage \* mailing

You can find the closures for the containers shown here on the next page at the top.

| Nominal capacity ml | A mm        | B mm | C mm | D mm | Mould no. | No. per case* pcs. | No. per packg. pcs. | Order no. |
|---------------------|-------------|------|------|------|-----------|--------------------|---------------------|-----------|
| 50                  | 38,5 x 38,5 | 23   | 32   | 60,5 | 310-26    | 972                | 162                 | 310-74371 |
| 100                 | 46 x 46     | 31   | 40   | 71   | 310-27    | 480                | 80                  | 310-74372 |
| 200                 | 59,5 x 59,5 | 41   | 50   | 88   | 310-28    | 406                | -                   | 310-74373 |
| 500                 | 80,5 x 80,5 | 54   | 65   | 108  | 310-31    | 162                | -                   | 310-74374 |
| 1000                | 97 x 97     | 69   | 80   | 143  | 310-32    | 96                 | -                   | 310-74375 |
| 2000                | 122 x 122   | 69   | 80   | 187  | 310-94A   | 44                 | -                   | 310-84404 |

\* Packaging unit / minimum ordering quantity



## Closures for wide neck containers series 310 PVC and PETG

**Screw closure PP, black, with PE-foam insert**

| for bottle<br>Nom. cap.<br>ml | C<br>mm | Order no. |
|-------------------------------|---------|-----------|
| 50                            | 32      | 805-70750 |
| 100                           | 40      | 805-70751 |
| 200/300                       | 50      | 805-70752 |
| 500                           | 65      | 805-70753 |
| 750/1000                      | 80      | 805-70754 |
| 2000                          | 80      | 805-70755 |



## Wide neck containers series 310 PVC - square, transparent and brown-transparent

Chrystal-clear for an excellent product presentation.

Brown-transparent for light-sensitive media.

Due to the wide neck opening the containers are easy to fill and to clean.

With tamper evident closure, PP, black colour, leakproof.

### Application:

- \* packaging \* dispensing \* sending samples
- \* storage \* mailing



### Wide neck containers series 310 PVC, transparent and brown-transparent

| Nominal capacity ml | A mm        | B mm | C mm | D mm  | Mould no. | No. per case* pcs. | No. per packg. pcs. | Order no. transparent | Order no. brown-transparent |
|---------------------|-------------|------|------|-------|-----------|--------------------|---------------------|-----------------------|-----------------------------|
| 100                 | 46 x 46     | 31   | 40   | 83,5  | 310-27B   | 480                | 80                  | 310-84419             | 310-84593                   |
| 200                 | 59,5 x 59,5 | 41   | 50   | 98,5  | 310-28B   | 288                | 48                  | 310-84412             | 310-84596                   |
| 300                 | 67,5 x 67,5 | 41   | 50   | 105,5 | 310-42B   | 288                | -                   | 310-84423             | 310-84601                   |
| 500                 | 80,5 x 80,5 | 54   | 65   | 118,5 | 310-31B   | 126                | 21                  | 310-84422             | 310-84599                   |

\* Packaging unit / minimum ordering quantity

### Guaranteed:

The content is safe against unauthorized removal. Opening the closure leaves distinct traces.

**Screw closure PP, black, with PE-foam insert and tamper evident ring**

| for bottle<br>Nom. cap.<br>ml | C<br>mm | Order no. |
|-------------------------------|---------|-----------|
| 100                           | 40      | 805-84479 |
| 200/300                       | 50      | 805-84480 |
| 500                           | 65      | 805-84481 |



A = Dimension cross section body B = Neck i.d. C = Cap size o.d. D = Height without closure

## Wide neck jars series 376 HDPE - round, natural colour



Due to the wide neck opening the containers are easy to fill and to clean.

Particularly suitable for storage, transport or disposal of powdery or granulated materials.

PE-foam seal, with black closure, leakproof.

### Application:

- \* packaging \* dispensing \* sending samples
- \* mailing \* storage

| Nominal capacity ml | A mm | B mm | C mm | D mm | Mould no. | No. per case* pcs. | Order no. |
|---------------------|------|------|------|------|-----------|--------------------|-----------|
| 100                 | 48   | 31   | 40   | 77   | 376-34    | 720                | 376-71492 |
| 250                 | 65   | 41   | 50   | 98   | 376-18    | 298                | 376-70541 |
| 500                 | 80   | 53   | 65   | 122  | 376-12    | 162                | 376-70542 |
| 750                 | 94   | 53   | 65   | 130  | 376-19    | 108                | 376-70543 |
| 1000                | 100  | 67   | 80   | 153  | 376-13    | 75                 | 376-70544 |
| 1500                | 114  | 67   | 80   | 173  | 376-20    | 48                 | 376-70545 |
| 2000                | 126  | 67   | 80   | 192  | 376-25    | 40                 | 376-71066 |

\* Packaging unit / minimum ordering quantity

### Screw closure PP, black, with PE-foam insert

| for bottle Nom. cap. ml | C mm | Order no. |
|-------------------------|------|-----------|
| 100                     | 40   | 805-70751 |
| 250                     | 50   | 805-70752 |
| 500/750                 | 65   | 805-70752 |
| 1000/1500/2000          | 80   | 805-70754 |

## Wide neck jar series 376 PP/Wide neck containers series 310 HDPE



### Wide neck jar PP:

Due to the wide neck opening the containers are easy to fill and to clean, leakproof.

Closure with tamper evident ring.

### Wide neck container HDPE:

Easy handling due to the wide neck opening.

Black screw closure with PE-foam insert, leakproof.

### Application:

- \* packaging \* dispensing \* sending samples
- \* mailing \* storage

### Wide neck jar PP, round, transparent

| Nominal capacity ml | A mm | B mm | C mm | D mm | Mould no. | No. per case* pcs. | Order no. |
|---------------------|------|------|------|------|-----------|--------------------|-----------|
| 250                 | 70,5 | 54   | 65   | 81   | 376-78    | 270                | 376-84836 |

\* Packaging unit / minimum ordering quantity

### Screw closure PP, black, with PE-foam insert and tamper evident ring

| for bottle Nom. cap. ml | C mm | Order no. |
|-------------------------|------|-----------|
| 250                     | 65   | 805-84481 |

### Wide neck container HDPE, square, natural colour

| Nominal capacity ml | A mm    | B mm | C mm | D mm | Mould no. | No. per case* pcs. | No. per packg. pcs. | Order no. |
|---------------------|---------|------|------|------|-----------|--------------------|---------------------|-----------|
| 100                 | 46 x 46 | 31   | 40   | 72   | 310-121   | 500                | 80                  | 310-82714 |

\* Packaging unit / minimum ordering quantity

### Screw closure HDPE, black, with PE-foam insert

| for bottle Nom. cap. ml | C mm | Order no. |
|-------------------------|------|-----------|
| 100                     | 40   | 805-70751 |

## Wide neck containers series 311 HDPE - square, natural colour, with moulded hand-grip

The square shape saves space. With moulded hand-grip for safe and convenient handling.

Ideal for collecting, storing and transporting solid chemicals.

### Application:

- \* packaging \* dispensing \* sending samples
- \* mailing \* storage



### Wide neck container series 311 HDPE, square, natural colour

| Nominal capacity ml | A mm      | B mm | C mm | D mm | Mould no. | No. per case* pcs. | Order no. |
|---------------------|-----------|------|------|------|-----------|--------------------|-----------|
| 2300                | 135 x 135 | 68,5 | 80   | 188  | 311-13    | 36                 | 311-83981 |

\* Packaging unit / minimum ordering quantity

**Screw closure PP, blue, with tamper evident ring and conical seal**

| for bottle<br>Nom. cap.<br>ml | C mm | Order no. |
|-------------------------------|------|-----------|
| 2300                          | 80   | 805-73775 |

### Wide neck container series 311 HDPE, square, natural colour, with screw closure

| Nominal capacity ml | A mm      | B mm | C mm | D mm | Mould no. | No. per case* pcs. | Order no. |
|---------------------|-----------|------|------|------|-----------|--------------------|-----------|
| 4400                | 142 x 142 | 109  | 120  | 263  | 311-03    | 52                 | 311-98311 |

\* Packaging unit / minimum ordering quantity

## Multipurpose container series 357 HDPE - polygonal, natural colour, with screwed-on closure

The wide neck opening means easy filling, emptying and cleaning.

Particularly suitable for storage, transport or disposal of powdery or granulated materials.

### Application:

- \* packaging \* dispensing \* sending samples \* mailing
- \* disposal \* collecting \* storage



### Multipurpose container series 357 HDPE, polygonal, natural colour, with screw closure

| Nominal capacity ml | A mm      | B mm  | C mm | D mm | Mould no. | No. per case* pcs. | Order no. |
|---------------------|-----------|-------|------|------|-----------|--------------------|-----------|
| 5000                | 190 x 180 | 108,5 | 120  | 230  | 357-5     | 14                 | 357-70546 |
| 10000               | 230 x 222 | 108,5 | 120  | 303  | 357-10    | 6                  | 357-70547 |

\* Packaging unit / minimum ordering quantity

A = Diameter/Dim. Cross section body B = Neck i.d. C = Cap size o.d. D = Height without closure

## Buckets series 610/615 LDPE - with graduation



### Industrial and laboratory buckets:

With and without spout. Plastic coated steel handle. Would you like them to be individually printed? Just contact us!

### Builder's bucket, dark grey:

With rustproof handle.

All buckets are thick-walled and very stable for a long working life and with graduated litre scale.

### Application:

- \* dispensing \* sending samples \* mixing
- \* transferring \* transport

| Capacity litre                                                          | Diameter mm |     | Height mm      | Mould no. | No. per case*/pcs. | Order no. |
|-------------------------------------------------------------------------|-------------|-----|----------------|-----------|--------------------|-----------|
| Nom. cap.                                                               | base        | top | without handle |           |                    |           |
| <b>with spout</b> , white, with plastic-coated steel carrying handle    |             |     |                |           |                    |           |
| 10                                                                      | 193         | 280 | 300            | 610-10    | 10                 | 610-70588 |
| 15                                                                      | 235         | 316 | 335            | 610-15    | 10                 | 610-70589 |
| <b>without spout</b> , white, with plastic-coated steel carrying handle |             |     |                |           |                    |           |
| 10                                                                      | 212         | 253 | 279            | 615-10    | 10                 | 615-70585 |
| <b>without spout</b> , dark grey, with rustproof handle                 |             |     |                |           |                    |           |
| 10                                                                      | 212         | 253 | 279            | 615-10B   | 10                 | 615-70587 |

\* Packaging unit / minimum ordering quantity

## Trigger bottle series 322 HDPE - rectangular, white



Spraying with pistol grip.

You would like them to be printed individually? Just contact us!

### Application:

- \* packaging \* spraying

| Nominal capacity ml | A mm    | B mm | C mm | D mm  | Mould no. | No. per case* pcs. | Order no. |
|---------------------|---------|------|------|-------|-----------|--------------------|-----------|
| 500                 | 93 x 45 | 21,8 | 28   | 242,5 | 322-291   | 130                | 322-84592 |

\* Packaging unit / minimum ordering quantity

| Trigger closure PP, white |      |           |
|---------------------------|------|-----------|
| for bottle Nom. cap. ml   | C mm | Order no. |
| 500                       | 28   | 805-84627 |



## Oiler series 319 LDPE - rectangular, natural colour

Handy shape.

Easy to squeeze.

Ideal for lubricants, rust removers, etc.



### Application

\* packaging \* dispensing \* dropping

| Nominal capacity ml | A mm    | B mm | C mm | D mm | Mould no. | No. per case* pcs. | No. per packg. pcs. | Order no. |
|---------------------|---------|------|------|------|-----------|--------------------|---------------------|-----------|
| 50                  | 50 x 27 | 9,8  | 14   | 65,6 | 319-50A   | 1200               | 100                 | 319-70578 |

\* Packaging unit / minimum ordering quantity

Closure LDPE, natural colour, with tip

for bottle  
Nom. cap.  
ml

Order no.

50 418-70723

## Beaker PP - with handle

PP transparent, with graduation.

| Capacity ml | Sub-division ml | Dimensions mm |        | No. per case* pcs. | Order no. |
|-------------|-----------------|---------------|--------|--------------------|-----------|
| Größe       |                 | Diameter      | Height |                    |           |
| 500         | 50              | 90            | 135    | 16                 | 817-70644 |
| 1000        | 50              | 117           | 170    | 12                 | 817-70645 |
| 2000        | 100             | 155           | 205    | 12                 | 817-70646 |
| 3000        | 100             | 173           | 230    | 10                 | 817-85350 |

\* Packaging unit / minimum ordering quantity



## Funnel HDPE - natural colour

Handy and stable.

| Diameter mm |           | No. per case* pcs. | Order no. |
|-------------|-----------|--------------------|-----------|
| top         | stem o.d. |                    |           |
| 50          | 3         | 12                 | 812-85349 |
| 60          | 8         | 12                 | 809-70633 |
| 80          | 11        | 12                 | 809-70634 |
| 100         | 12        | 12                 | 809-70635 |
| 120         | 12        | 12                 | 809-70636 |
| 164         | 17        | 12                 | 809-70637 |
| **208       | 20        | 10                 | 810-70638 |

\* Packaging unit / minimum ordering quantity \*\* with phosphor-bronze filter, diameter 50 mm



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In the interest of continuous improvement, Kautex reserves the right to change the design and technical parameters. Only contractual stipulations are binding.

A = Diameter body B = Neck i.d. C = Cap size o.d. D = Height without closures

## Carboy series 350 HDPE - natural colour, with blue litre-scale and screwed-on closure



Printed litre scale.

With and without threaded stopcock connection.

Two different types of stopcocks.

### Application:

- \* storage \* transfer
- \* transport



| Nominal capacity litre | A mm | B mm | D mm | Mould no. | No. per case* pcs. | Order no. |
|------------------------|------|------|------|-----------|--------------------|-----------|
|------------------------|------|------|------|-----------|--------------------|-----------|

#### without stopcock connection

|    |     |    |     |        |    |           |
|----|-----|----|-----|--------|----|-----------|
| 5  | 167 | 50 | 330 | 350-5  | 11 | 350-84131 |
| 10 | 206 | 50 | 427 | 350-10 | 6  | 350-84133 |
| 25 | 278 | 50 | 580 | 350-25 | 5  | 350-84135 |
| 60 | 346 | 50 | 823 | 350-60 | 2  | 350-84136 |

#### with stopcock connection

|    |     |    |     |         |    |           |
|----|-----|----|-----|---------|----|-----------|
| 5  | 167 | 50 | 330 | 350-5Z  | 11 | 350-84137 |
| 10 | 206 | 50 | 427 | 350-10Z | 6  | 350-84132 |
| 25 | 278 | 50 | 580 | 350-25Z | 5  | 350-84138 |
| 60 | 346 | 50 | 823 | 350-60Z | 2  | 350-84139 |

\* Packaging unit / minimum ordering quantity

### Accessories for carboys

| Description                      | No. | Order no. |
|----------------------------------|-----|-----------|
| Stopcock HDPE, blue              | ①   | 480-76459 |
| Stopcock PP, blue                | ②   | 851-83794 |
| Adapter blue for stopcock        | ③   | 851-83793 |
| Blank stopper HDPE, natural col. | ④   | 436-70625 |

## UN open top drum series 359 HDPE - round, blue, with lid and clamping ring



All sizes with UN approval.

Meet the GGVS/GGVE (rail/road/sea) regulations for the transport of solid substances with a density of at least 1.5 g / ccm.

Supplied complete with PE-lid and galvanized clamping ring.

30 and 60 l with handles.

### Application:

- \* storage \* transfer
- \* transport \* disposal

| Nominal capacity litre | A mm | B mm | Height with closure mm | No. per case* pcs. | UN approval   | Order no. |
|------------------------|------|------|------------------------|--------------------|---------------|-----------|
| 30                     | 313  | 251  | 518                    | 1                  | UN 1H2/X61/S  | 359-90800 |
| 60                     | 398  | 325  | 620                    | 1                  | UN 1H2/X88/S  | 359-90867 |
| 120                    | 469  | 395  | 790                    | 1                  | UN 1H2/X225/S | 359-91093 |
| 150                    | 504  | 395  | 965                    | 1                  | UN 1H2/X240/S | 359-91098 |

A = Diameter body B = Neck i.d. C = Cap size o.d. D = Height without closure

## Industrial jerrycans series 353 HDPE - natural and blue colour

Jerrycans 2,5 to 5 and 10 to 30 l with UN approval.

Jerrycans 20, 25 and 30 l also available in blue colour.

Universal jerrycan for industry, trade and laboratories.  
The jerrycans with a comprehensive range of closure accessories can be used for almost any purpose.

### Application:

\* storage \* packaging \* transport



### Industrial jerrycans series 353 HDPE, natural colour

| Nominal capacity litre | A mm      | B mm | C mm | D mm | Weight g | No. per case* pcs. | UN approval     | Order no. |
|------------------------|-----------|------|------|------|----------|--------------------|-----------------|-----------|
| 2                      | 145 x 109 | 34,5 | 45   | 196  | 110      | 25                 | -               | 353-95939 |
| 2,5                    | 153 x 115 | 34,5 | 45   | 208  | 125      | 25                 | UN 3H1/Y1.6/150 | 353-95966 |
| 3                      | 153 x 115 | 34,5 | 45   | 240  | 140      | 25                 | UN 3H1/Y1.6/150 | 353-96404 |
| 5                      | 190 x 145 | 40,5 | 50   | 251  | 250      | 16                 | UN 3H1/X1.9/250 | 353-92562 |
| 6                      | 192 x 145 | 34,5 | 45   | 294  | 265      | 16                 | -               | 353-95937 |
| 8                      | 230 x 190 | 34,5 | 45   | 270  | 320      | 10                 | -               | 353-80289 |
| 10                     | 230 x 190 | 40,5 | 50   | 310  | 450      | 10                 | UN 3H1/X1.9/250 | 353-95642 |
| 20                     | 290 x 246 | 48,5 | 60   | 385  | 950      | 6                  | UN 3H1/Y1.9/250 | 353-96138 |
| 30                     | 320 x 284 | 48,5 | 60   | 435  | 1250     | 6                  | UN 3H1/X1.9/250 | 353-95981 |

\* Packaging unit / minimum ordering quantity

### Industrial jerrycans series 353 HDPE, blue colour

| Nominal capacity litre | A mm      | B mm | C mm | D mm | Weight g | No. per case* pcs. | UN approval     | Order no. |
|------------------------|-----------|------|------|------|----------|--------------------|-----------------|-----------|
| 20                     | 290 x 246 | 48,5 | 60   | 385  | 950      | 6                  | UN 3H1/X1.9/250 | 353-96232 |
| 25                     | 290 x 246 | 48,5 | 60   | 450  | 1100     | 6                  | UN 3H1/X1.9/250 | 353-95776 |
| 30                     | 320 x 284 | 48,5 | 60   | 435  | 1250     | 6                  | UN 3H1/X1.9/250 | 353-95982 |

\* Packaging unit / minimum ordering quantity

### Closures and accessories

| for jerrycan nom. cap. litre | ① Order no. | ② Order no. | ③ Order no. | ④ Order no. | ⑤ Order no. | ⑥ Order no. |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 2/2,5/3                      | 805-85883   | 805-85770   | 805-85771   | 805-95872   | 805-96921   | 805-90464   |
| 5                            | 805-95912   | 805-95946   | 805-95901   | 805-90386   | 805-83882   | 805-90465   |
| 6/8                          | 805-85883   | 805-85770   | 805-85771   | 805-95872   | 805-96921   | 805-90464   |
| 10                           | 805-95912   | 805-95946   | 805-95901   | 805-90386   | 805-83882   | 805-90465   |
| 20                           | 805-95898   | 805-95987   | 805-95984   | 805-90480   | 805-83884   | 805-90465   |
| 25                           | 805-95898   | 805-95987   | 805-95984   | 805-90480   | 805-83885   | 805-90465   |
| 30                           | 805-95898   | 805-95987   | 805-95984   | 805-90480   | 805-83886   | 805-90465   |

- ① Screw closure HDPE, black, with tamper evident ring and venting system
- ② Screw closure HDPE, black, with tamper evident ring

- ③ Screw closure HDPE, red, with tamper evident ring
- ④ Screw closure HDPE, natural colour, with stop cock, red

- ⑤ Screw closure HDPE, white, with dispensing pump
- ⑥ Wrench HDPE, tool for opening and closing



A = Dimension cross section body B = Neck i.d. C = Cap size o.d. D = Height without closure



# Know how and competence

KAUTEX Textron has been specialised in manufacturing extrusion-blown plastic containers for seven decades.

Goal-directed with uncompromising standards for quality and customer focus, we have made our products to belong to the most successful on the international market.

We are meeting the challenges of tomorrow by resolutely leveraging the capacity for innovation and technological leadership in plastics processing of our international group.



**Standard Packaging**

**System Packaging**

**Special Packaging**



- Successful products for laboratories, chemical industries, pharmacy and cosmetics
- Many versions, sizes, materials, accessories
- For special applications also possible with barriers (coex, fluorination)
- Available ex stock

- Many different types and sizes of bottles from KAUTEX-own moulds
- The customer selects the type of bottle, the suitable closure, colour and decoration; no charge is to be made for the cost of moulds
- For special applications also possible with barriers (coex, selar)

- Bottles and containers made of PE, PP, PVC and PETG; for special applications also available with barriers (coex, selar)
- The customer determines the design and pays for the mould; the products are supplied only to this customer
- If required, we offer decoration for the packaging: screen printing, thermimage, film hot-stamping

# for successful products



**Large Packaging**

**Plant Care Packaging**

**Technical Blowmoulding Parts**



- Jerrycans:  
2 1/2, 5 1/3 1/5 1/6 1/8 1/10 1/12 1/15 1/20 1/25 1/30 l
- From stock or as a special design; if required with the necessary certifications

- Jerrycans for crop protection agents:  
2 1/2, 3 1/3 1/5 1/10 l
- Bottles for crop protection agents:  
100 ml/ 200 ml/ 250 ml/ 500 ml/ 1 l
- Available with and without barrier (coex)

- Individual products like customer default, also as a system solution
- Parts for the sanitary industry, for example for cistern and hot water containers
- Water, oil and fuel tanks
- Air tubes, for example for the white goods industry



## Raw materials

**LDPE, HDPE, PP, hard PVC and PETG** are physiologically inert and are suitable for the appropriate packaging and storage of foodstuffs. They fulfil the valid German regulations and the EG-Directive 90/ 128 together with the corresponding supplements EEC 92/ 39, 93/ 9 and 95/ 3.

This catalogue and included data sheets are intended to fully inform you. The information it contains is valid and in accordance with our experience and knowledge at the time of publication.

Testing the suitability of our products and the materials used in their manufacture for their intended use is the responsibility of our customers. This is the reason why it is not possible to derive a binding warranty for any particular properties or for the suitability of a product or material for a specific purpose from advice provided by us.

### **Polyolefins (PE): LDPE, HDPE, PP**

- physiologically inert
- flexible and inherently stable
- good chemical resistance
- shatter-proof
- PP is autoclavable

### **Polypropylen (PP)**

- rigid and inherently stable
- very good chemical resistance
- features a very good resistance against tension cracking
- in thin layers almost transparent, thicker layers are translucent up to opaque white

### **Low-density Polyethylene (LDPE)**

- flexible, tough and shatter-proof
- in thin layers almost transparent, thicker layers are translucent up to opaque white
- resistant to water, aqueous solutions and most chemicals
- excellent water vapour resistance

### **High-density Polyethylen (HDPE)**

- rigid and shatter-proof
- slightly transparent in thin layers, in thicker layers weakly translucent to opaque white
- resistant to water, aqueous solutions and most chemicals
- excellent water vapour resistance

### **Polyvinyle chloride (PVC hard)**

- physiologically inert
- crystal-clear or transparent brown
- good chemical resistance
- extremely rigid, high breaking resistance
- high transparency
- resistant to water, aqueous solutions, alcohols and oils
- slight gas permeability, e.g. to oxygen
- adequate water vapour resistance in most cases

### **Co- Polyester (PETG) (Polyethylen Terphthalat Glycole)**

- physiologically inert
- flexible and inherently stable
- high transparency (glass-clear), optically brilliant
- shatter-proof
- resistant to water, aqueous solutions, salts, aliphatic mediums, hydrocarbons und oils

|                                             | Low density<br>Polyethylene<br>LDPE                                                 | High density<br>Polyethylene<br>HDPE                                                                                                            | Polypropylene<br>PP                                           | PVC<br>rigid                                                                           | Co-Polyester<br>PETG                                      | Polyamide                                                         | Polycarbonate                                                                     |
|---------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Physical<br>properties of<br>thermoplastics | natural colour                                                                      | transparent                                                                                                                                     | translucent white                                             | transparent                                                                            | crystal clear                                             | crystal clear                                                     | crystal clear                                                                     |
|                                             | state at 20 °C                                                                      | flexible                                                                                                                                        | flexible/rigid                                                | brittle/<br>impact resistant                                                           | brittle/<br>impact resistant                              | flexible/tough<br>vulnerable to folding                           | flexible/rigid                                                                    |
|                                             | specific weight at 20 °C                                                            | approx. 0.92                                                                                                                                    | approx. 0.95                                                  | approx. 1.38                                                                           | approx. 1.25                                              | approx. 1,12                                                      | approx. 1,2                                                                       |
|                                             | shore hardness 20 °C                                                                | approx. 90                                                                                                                                      | approx. 95                                                    | approx. 100                                                                            | approx. 100                                               | approx. 100                                                       | approx. 100                                                                       |
|                                             | tear strength at 20 °C                                                              | approx. 10 N/mm <sup>2</sup>                                                                                                                    | approx. 20 N/mm <sup>2</sup>                                  | approx. 50 N/mm <sup>2</sup>                                                           | approx. 50 N/mm <sup>2</sup>                              | approx. 45 N/mm <sup>2</sup>                                      | approx. 60 N/mm <sup>2</sup>                                                      |
| Chemical<br>properties of<br>thermoplastics | elongation at 20 °C                                                                 | approx. 500 %                                                                                                                                   | approx. 500 %                                                 | approx. 30 %                                                                           | approx. 15 %                                              | approx. 200 %                                                     | approx. 100 %                                                                     |
|                                             | water absorption                                                                    | traces                                                                                                                                          | traces                                                        | traces                                                                                 | traces                                                    | high                                                              | traces                                                                            |
|                                             | diffusion                                                                           | hydrocarbons                                                                                                                                    | hydrocarbons                                                  | hydrocarbons                                                                           | hydrocarbons                                              | water, hydrocarbons                                               | water, hydrocarbons                                                               |
|                                             | This information only provides a general indication.                                |                                                                                                                                                 |                                                               |                                                                                        |                                                           |                                                                   |                                                                                   |
|                                             | resistant against                                                                   | non oxidising alkalis, organic solvents,<br>excl. chlorinated hydrocarbons: it is advisable to<br>carry out storage tests for testing diffusion | see LDPE/HDPE                                                 | acids, alkalis, petrol,<br>oil, fats, terpentine,<br>alcohol                           | petrol, oils, fats,<br>terpentine                         | petrol, benzene,<br>chlorinated hydro-<br>carbons, oils, fats     | weak acids                                                                        |
| Applications                                | not resistant against                                                               | oxidising acids, oils,<br>fats, chlorinated<br>hydrocarbons                                                                                     | oxidising acids,<br>oils, fats, chlorina-<br>ted hydrocarbons | esters, ketone, benzene,<br>chlorinated hydrocarbons,<br>hydrogene sulphide            | esters, ketone,<br>benzene, chlorina-<br>ted hydrocarbons | acids, alkalis,<br>alcohol, water                                 | alkalis, strong acids,<br>esters, ketone, benzene,<br>chlorinated<br>hydrocarbons |
|                                             | This information only provides a general indication, storage tests are recommended. |                                                                                                                                                 |                                                               |                                                                                        |                                                           |                                                                   |                                                                                   |
|                                             | container size                                                                      | 0,001 to 1000 l                                                                                                                                 | 0,001 to 3000 l                                               | 0,01 to 5 l                                                                            | 0,01 to 1 l                                               | 0,01 to 60 l                                                      | 0,01 to 30 l                                                                      |
|                                             | type of contents                                                                    | cosmetic<br>preparations, food-<br>stuffs and chemicals                                                                                         | see LDPE, aromatic<br>hydrocarbons, oils,<br>fats             | wash polish, petrol,<br>oils, fats, shoecream,<br>cosmetic preparations,<br>foodstuffs | cosmetic<br>preparations,<br>foodstuffs                   | petrol, oils, fats,<br>stain remover<br>(tri, tetra)              | cosmetic<br>preparations,<br>foodstuffs                                           |
|                                             | transformation of<br>contents                                                       | none caused by the material itself, possibly due to diffusion                                                                                   |                                                               | -                                                                                      | -                                                         | drying out without<br>becoming moist due<br>to diffusion of water | none caused by<br>material itself, possi-<br>bly due to diffusion                 |
| printing options                            | Screen printing                                                                     | Screen printing                                                                                                                                 | Screen printing                                               | Screen printing                                                                        | Screen printing                                           | Screen printing                                                   | Screen printing                                                                   |
|                                             | engraving suitability                                                               | good                                                                                                                                            | good                                                          | vulnerable to cracking<br>around sharp edges                                           | vulnerable to cracking<br>around sharp edges              | vulnerable to cracking<br>around sharp edges                      | vulnerable to cracking<br>around sharp edges                                      |
|                                             | operational temperature                                                             | -40 °C to 95 °C                                                                                                                                 | -40 °C to 110 °C                                              | -30 °C to 70 °C                                                                        | 0 °C to 65 °C                                             | 0 °C to 80 °C                                                     | -40 °C to 115 °C                                                                  |

Resistance: 1 = stable, 2 = conditionally stable, 3 = unstable

| MEDIUM                            | CONC.       | HDPE |      | LDPE |      | PETG |      | PP   |      | PVC HARD |      |
|-----------------------------------|-------------|------|------|------|------|------|------|------|------|----------|------|
|                                   |             | 20°C | 50°C | 20°C | 50°C | 20°C | 50°C | 20°C | 50°C | 20°C     | 50°C |
| Acetaldehyde                      | 40%         | 2    | 2    | 1    | 3    | 3    | 3    | 1    | -    | 3        | 3    |
| Acetaldehyde + acetic acid        | 90/10%      | -    | -    | -    | -    | -    | -    | 1    | -    | -        | -    |
| Acetic acid                       | 10 %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2    |
| Acetic acid                       | 50 %        | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 1    |
| Acetic acid                       | 5 %         | 1    | 1    | 1    | 2    | 1    | 1    | 1    | 1    | 1        | 1    |
| Acetic acid (glacial acetic acid) | 90%         | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 1    |
| Acetic acid ester                 | 100 %       | -    | -    | 1    | 3    | 3    | 3    | 1    | 2    | 3        | 3    |
| Acetone                           |             | 1    | 1    | 2    | 2    | 3    | 3    | 1    | 2    | 3        | 3    |
| Acetonitrile                      |             | 1    | 1    | 1    | 1    | -    | 3    | 2    | 3    | 3        | 3    |
| Acid, battery                     | 38 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 2    |
| Acrylic acid ethyl ester          | 100%        | -    | -    | -    | -    | -    | -    | -    | -    | 3        | 3    |
| Adipic acid                       | saturated   | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 2    |
| Allyl alcohol                     | 96 %        | 1    | 2    | 2    | 2    | 1    | -    | 1    | 1    | 1        | 2    |
| Alum                              |             | 1    | 1    | -    | -    | 1    | 1    | 1    | 1    | -        | -    |
| Aluminium chloride                | 10 %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1    |
| Aluminium chloride                | solid       | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | -        | -    |
| Aluminium chloride                | saturated   | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 1    |
| Aluminium chloride                | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1    |
| Aluminium nitrate                 | aqueous     | 1    | 1    | 1    | -    | 1    | 1    | 1    | 1    | 1        | -    |
| Aluminium sulfate                 | 10 %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1    |
| Aluminium sulfate                 | saturated   | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 1    |
| Ammonia                           | 25 %        | 1    | 1    | 1    | 1    | 1    | 3    | 1    | 1    | 1        | 1    |
| Ammonia liquor                    | any         | 1    | 1    | 1    | 1    | 1    | 3    | 1    | 1    | -        | -    |
| Ammonium chloride                 | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2    |
| Ammonium fluoride                 | saturated   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | -    |
| Ammonium fluoride                 | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | -        | -    |
| Ammonium nitrate                  | 10 %        | 1    | 2    | -    | -    | 1    | 1    | 1    | 1    | 1        | 2    |
| Ammonium nitrate                  | saturated   | 1    | 2    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1    |
| Ammonium nitrate                  | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | -        | -    |
| Ammonium sulfate                  | 10 %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2    |
| Ammonium sulfate                  | saturated   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1    |
| Ammonium sulfate                  | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | -        | -    |
| Ammonium sulfide                  | any         | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 2    |
| Ammonium sulfide                  | aqueous     | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | -        | -    |
| Amyl acetate (Pentylacetate)      |             | 1    | 1    | 1    | 2    | 1    | 2    | 2    | 3    | 3        | 3    |
| Amyl alcohol                      |             | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 2    |
| Aniline                           |             | 1    | 1    | 1    | 2    | -    | -    | 1    | 2    | 3        | 3    |
| Aniline chlorohydrate             | saturated   | 1    | 2    | -    | -    | -    | -    | 1    | 2    | 1        | -    |
| Antifreeze (Ethyleneglycol)       |             | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | -        | -    |
| Antimony trichloride              | 90 %        | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | -    |
| Aqua regia                        |             | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3        | 3    |
| Aromatic acid                     |             | 1    | 1    | -    | -    | -    | -    | -    | -    | -        | -    |
| Aromatic acids                    | 0,5         | 1    | 1    | 1    | 1    | -    | -    | -    | -    | -        | -    |
| Arsenic acid                      |             | 1    | 1    | -    | 1    | -    | -    | 1    | 1    | 1        | 2    |
| Arsenic acid                      | aqueous     | 1    | 1    | -    | -    | -    | -    | 1    | 1    | -        | -    |
| Arsenic acid hydride              |             | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | -        | -    |
| Beer                              |             | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 1    |
| Benzene                           |             | 2    | 3    | 2    | 3    | 3    | 3    | 2    | 3    | 3        | 3    |
| Benzoic acid                      | saturated   | 1    | 1    | 1    | 1    | 1    | -    | 1    | 2    | 1        | 1    |
| Benzoic acid                      | aqueous     | 1    | 1    | 1    | 1    | 1    | -    | 1    | 2    | -        | -    |
| Benzyl benzoate                   |             | -    | -    | -    | -    | -    | -    | 2    | 3    | -        | -    |
| Borax                             | any         | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2    |
| Boric acid                        | 10 %        | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 2    |
| Boric acid                        | aqueous     | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | -        | -    |
| Brake fluid                       |             | 1    | 1    | 1    | -    | -    | -    | 1    | 1    | 1        | -    |
| Brake fluid DOT 3                 |             | -    | -    | -    | -    | 1    | 1    | -    | -    | -        | -    |
| Brandy                            |             | 1    | 1    | 1    | -    | 1    | -    | 1    | 1    | 1        | 1    |
| Brandy                            |             | -    | -    | -    | -    | -    | -    | -    | -    | 1        | -    |
| Bromic vapours                    |             | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | -        | -    |
| Bromine                           |             | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 1        | 3    |
| Butane                            | techn. pure | 1    | -    | 1    | 1    | 1    | -    | 1    | 1    | 1        | -    |
| Butanol                           | techn. pure | 1    | 1    | 1    | 2    | 1    | -    | 1    | 1    | 1        | 2    |
| Butenediol                        | 10 %        | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | -    |
| Butyl acetate                     |             | 1    | 1    | 1    | 2    | 2    | -    | 2    | 3    | 3        | 3    |
| Butyric acid                      |             | 2    | 3    | 3    | 3    | -    | -    | 3    | 3    | 1        | 3    |
| Calcium chloride                  | aqueous     | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 2    |
| Calcium hypochlorite              | aqueous     | -    | -    | -    | -    | 2    | -    | -    | 1    | 1        | -    |
| Calcium hypochlorite              | saturated   | 1    | 1    | 1    | 1    | 1    | 2    | -    | 1    | 1        | 12   |
| Calcium nitrate                   | 50 %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1-   |
| Calcium nitrate                   | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | -        | -    |
| Carbon dioxide, dry               | techn. pure | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2    |
| Carbon dioxide, umid              | techn. pure | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1    |
| Carbon disulfide                  |             | 3    | 3    | 3    | 3    | -    | -    | 3    | 3    | 3        | 3    |
| Carbon tetrachloride              |             | 2    | 3    | 3    | 3    | 1    | 3    | 3    | 3    | 1        | 2    |
| Carbonic acid                     | saturated   | 1    | 2    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2    |
| Caustic potash                    | 30 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 2    |
| Caustic potash                    | 50 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 1    |
| Caustic potash                    | aqueous     | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | -        | -    |
| Caustic potash                    | 10 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | -        | -    |
| Caustic potash                    | 50 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 1    |
| Caustic soda                      |             | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | -        | -    |
| Chloramine                        | diluted     | 1    | -    | 1    | -    | -    | -    | 2    | 3    | -        | -    |
| Chloric methyl                    |             | -    | -    | -    | -    | -    | -    | 3    | 3    | -        | -    |
| Chlorinated water                 |             | 2    | -    | -    | 3    | 3    | 3    | 1    | 3    | 2        | 2    |
| Chlorine                          | 10 % wet    | 2    | 3    | 2    | 3    | 3    | 3    | 3    | 3    | 1        | 1    |
| Chlorine                          | 97 %        | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3        | 3    |
| Chlorine gas                      |             | -    | -    | -    | -    | 3    | 3    | 3    | 3    | -        | -    |
| Chloroacetic acid                 |             | -    | -    | -    | -    | 3    | 3    | 1    | 1    | -        | -    |
| Chloroacetic acid (mono)          | 50 %        | 1    | 2    | 1    | 2    | 3    | 3    | 1    | 1    | 1        | -    |
| Chloroacetic acid (mono)          | techn. pure | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 2        | 3    |
| Chlorobenzene                     |             | 3    | 3    | 2    | 3    | 1    | 3    | 2    | 3    | 3        | 3    |
| Chlorsulphonic acid               | techn. pure | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 2        | -    |
| Chromic acid                      | 10 %        | 1    | 1    | 1    | 1    | 2    | -    | 1    | 1    | 1        | 1    |
| Chromic acid                      | 20 %        | -    | -    | 1    | 2    | 3    | 3    | 2    | 2    | 1        | -    |
| Chromic acid                      | 50 %        | 2    | 3    | 2    | 3    | 3    | 2    | 1    | 2    | -        | -    |
| Chromic acid                      | aqueous     | -    | -    | -    | -    | 3    | 3    | 1    | 2    | -        | -    |

| MEDIUM                       | CONC.       | HDPE |      | LDPE |      | PETG |      | PP   |      | PVC HARD |         |
|------------------------------|-------------|------|------|------|------|------|------|------|------|----------|---------|
|                              |             | 20°C | 50°C | 20°C | 50°C | 20°C | 50°C | 20°C | 50°C | 20°C     | 50°C    |
| Chromic alum                 | saturated   | 1    | 1    | -    | -    | 1    | 1    | 1    | 1    | 1        | 1       |
| Chromic sulphuric acid       | pur         | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 2        | -       |
| Citric acid                  | 10 %        | 1    | 1    | 1    | 1    | 1    | 2    | 1    | 1    | 1        | 1       |
| Citric acid                  | 10 %        | 1    | 1    | 1    | 1    | 1    | 2    | 1    | 1    | 1        | 2       |
| Citric acid                  | 50 %        | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | -        | -       |
| Citric acid                  | saturated   | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 1       |
| Citric acid                  | aqueous     | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | -        | -       |
| Common salt                  |             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1       |
| Common salt                  | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1       |
| Copper sulphate              | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | -        | -       |
| Crude oil                    | 100 %       | -    | -    | 1    | 2    | 1    | -    | 1    | 2    | 1        | -       |
| Cyanogen potash              | saturated   | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 2       |
| Cyclanone                    |             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | -        | -       |
| Cyclohexane                  |             | 2    | 2    | 2    | 3    | 1    | -    | 2    | 3    | 1        | 2       |
| Cyclohexanol                 | techn. pure | 1    | 1    | 1    | 1    | -    | -    | 1    | 2    | 1        | 1       |
| Cyclohexanone                | techn. pure | 1    | 2    | 2    | 3    | 3    | 3    | 1    | 3    | 3        | 3       |
| Dekalin (Decahydronaphtalin) | 100 %       | 1    | 2    | 2    | 3    | 2    | -    | 2    | 3    | 1        | 1       |
| Detergent solution           |             | -    | -    | -    | -    | 1    | 1    | 1    | 1    | -        | -       |
| Dextrine                     |             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1       |
| Dextrine                     | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1       |
| Diaethyl ether               |             | 1    | -    | -    | -    | -    | -    | -    | -    | -        | -       |
| Dibutyl phthalate (DBP)      |             | 1    | 2    | 2    | 2    | 1    | -    | 1    | 1    | 3        | 3       |
| Dichloroethylene             | techn. pure | 3    | 3    | 3    | 3    | 3    | 3    | 2    | -    | 3        | 3       |
| Diesel fuel                  |             | 1    | 2    | -    | -    | 1    | 1    | 1    | 2    | 1        | -       |
| Diesel oil                   | 100 %       | 1    | 2    | 1    | 3    | 1    | 1    | 1    | 2    | 1        | 2       |
| Diglycolic acid              | 30 %        | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 2       |
| Diglycolic acid              | aqueous     | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | -        | -       |
| Dimethyl formamide           |             | 1    | 1    | 1    | 2    | 1    | -    | 1    | 1    | 2        | 3       |
| Dioxane                      |             | -    | -    | -    | -    | 1    | -    | 2    | 2    | -        | -       |
| Drinking water               |             | -    | -    | -    | -    | -    | -    | -    | -    | 1        | 1 (40°) |
| Emissions, carbon dioxide    | low         | 1    | 1    | -    | -    | 1    | 1    | 1    | 1    | 1        | 1       |
| Emissions, hydrochloric      | any         | 1    | 1    | -    | -    | -    | -    | 1    | 1    | 1        | 1       |
| Emissions, hydrofluoric      | low         | 1    | 1    | -    | -    | -    | -    | 1    | 1    | 1        | 1       |
| Emissions, nitrous           | low         | 1    | 1    | -    | -    | -    | -    | 1    | 2    | 1        | 1       |
| Emissions, sulfurdioxide     | low         | 1    | 1    | -    | -    | -    | -    | 1    | 1    | 1        | 1       |
| Emissions, sulfuric acid     | any         | 1    | 1    | -    | -    | -    | -    | 1    | 2    | 1        | 1       |
| Engine oil                   |             | -    | -    | -    | -    | 1    | 1    | 1    | 1    | -        | -       |
| Ethanol                      | 50 %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | -       |
| Ethanol                      | 96 %        | 1    | -    | 1    | -    | 1    | 1    | 1    | 1    | 1        | -       |
| Ethyl acetate                |             | -    | -    | -    | -    | 2    | 3    | -    | -    | -        | -       |
| Ethyl alcohol                | 40 %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1       |
| Ethyl alcohol                | 96 %        | 1    | 1    | 1    | 2    | 1    | 1    | 1    | 1    | 1        | 2       |
| Ethyl chloride               |             | 2    | 2    | 1    | 3    | 3    | 3    | 2    | 3    | 3        | 3       |
| Ethylene glycol              |             | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 1       |
| Fat, vegetable               |             | -    | -    | -    | -    | 1    | -    | 1    | 2    | -        | -       |
| Fatty acid                   | techn. pure | 1    | 2    | 1    | 1    | 1    | -    | -    | 1    | 1        | 11      |
| Fertilizer salts             | saturated   | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 1       |
| Fluorhydric acid             | 40%         | 1    | -    | -    | -    | -    | -    | -    | -    | -        | -       |
| Fluorhydric acid             | 70%         | 1    | -    | -    | -    | -    | -    | -    | -    | -        | -       |
| Fluorhydric acid             | 100 %       | -    | -    | -    | -    | 3    | 3    | 1    | 1    | -        | -       |
| Fluorhydric acid             | 4 %         | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 2       |
| Fluorhydric acid             | 50 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 2       |
| Fluorine                     |             | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 1        | 1       |
| Fluorine                     | dry         | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | -        | -       |
| Fluosilicic acid             |             | 1    | 1    | -    | -    | -    | -    | -    | -    | -        | -       |
| Formaldehyde                 | 10 %        | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 2       |
| Formaldehyde                 | 40 %        | 1    | 1    | 1    | 2    | 1    | -    | 1    | 1    | 1        | 2       |
| Formic acid                  | 3 %         | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 2       |
| Formic acid                  | 50 %        | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 2       |
| Formic acid                  | 98-100 %    | 1    | 1    | 1    | 1    | -    | -    | 1    | 2    | 2        | 3       |
| Freon 11                     |             | -    | -    | -    | -    | -    | -    | 2    | 2    | -        | -       |
| Fruit juices                 |             | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 1       |
| Fruit tree carbolineum       | aqueous     | -    | -    | -    | -    | -    | -    | -    | -    | -        | -       |
| Fruit wine                   |             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | -    | 1        | -       |
| Gelatine                     | any         | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | -       |
| Gelatine                     | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | -        | -       |
| Glacial acetic acid          |             | -    | -    | -    | -    | 3    | 3    | 1    | 2    | -        | -       |
| Glucose                      | any         | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2       |
| Glue (animal glue, gelatine) | any         | 1    | -    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2       |
| Glycerin                     | any         | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 1       |
| Glykol                       |             | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | -        | -       |
| Grape sugar                  | any         | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2       |
| Grape sugar                  | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | -        | -       |
| Hexane                       |             | 1    | 2    | 3    | 3    | 1    | -    | 1    | 2    | 1        | 3       |
| Hexane, -n                   |             | 1    | 2    | 3    | 3    | 1    | -    | 1    | 2    | 1        | 3       |
| Hedorcyanic acid             | aqueous     | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | -       |
| Hydrazine                    | 10 %        | -    | -    | 1    | -    | -    | -    | 1    | 1    | 1        | -       |
| Hydrazine hydrate            |             | 1    | 1    | -    | -    | -    | -    | -    | -    | -        | -       |
| Hydrobromic acid             | 40%         | 1    | -    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 1       |
| Hydrobromic acid             | 50 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 1       |
| Hydrobromic acid             | diluted     | 1    | 1    | 1    | 1    | 2    | -    | 1    | 1    | 1        | 2       |
| Hydrochloric acid            | 1-5 %       | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1       |
| Hydrochloric acid            | 20 %        | 1    | 1    | 1    | 1    | 2    | -    | 1    | 1    | 1        | 2       |
| Hydrochloric acid            | 35 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 2       |
| Hydrochloric acid            | conc.       | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 2       |
| Hydrocyanic acid             | techn. pure | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 2       |
| Hydrofluosilicic acid        | 32 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 1       |
| Hydrogen fluoride            | anhydrous   | -    | -    | -    | -    | 3    | 3    | 1    | 1    | -        | -       |
| Hydrogene chloride gas       |             | -    | -    | -    | -    | 3    | 3    | 1    | 1    | -        | -       |
| Hydrogene peroxide           | 3 %         | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | -        | -       |
| Hydrogene peroxide           | 30 %        | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | -        | -       |
| Hydrosulphide                | saturated   | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 2       |
| Hydroxylamine sulfate        | any         | 1    | 1    | -    | -    | -    | -    | 1    | 1    | 1        | -       |
| Iodine tincture              |             | 1    | 2    | 1    | 2    | -    | -    | 1    | 1    | 3        | 3       |
| Iron chloride                | aqueous     | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | -        | -       |
| Isooctane                    | techn. pure | 1    | 2    | 1    | 2    | 1    | -    | 1    | 2    | 1        | -       |



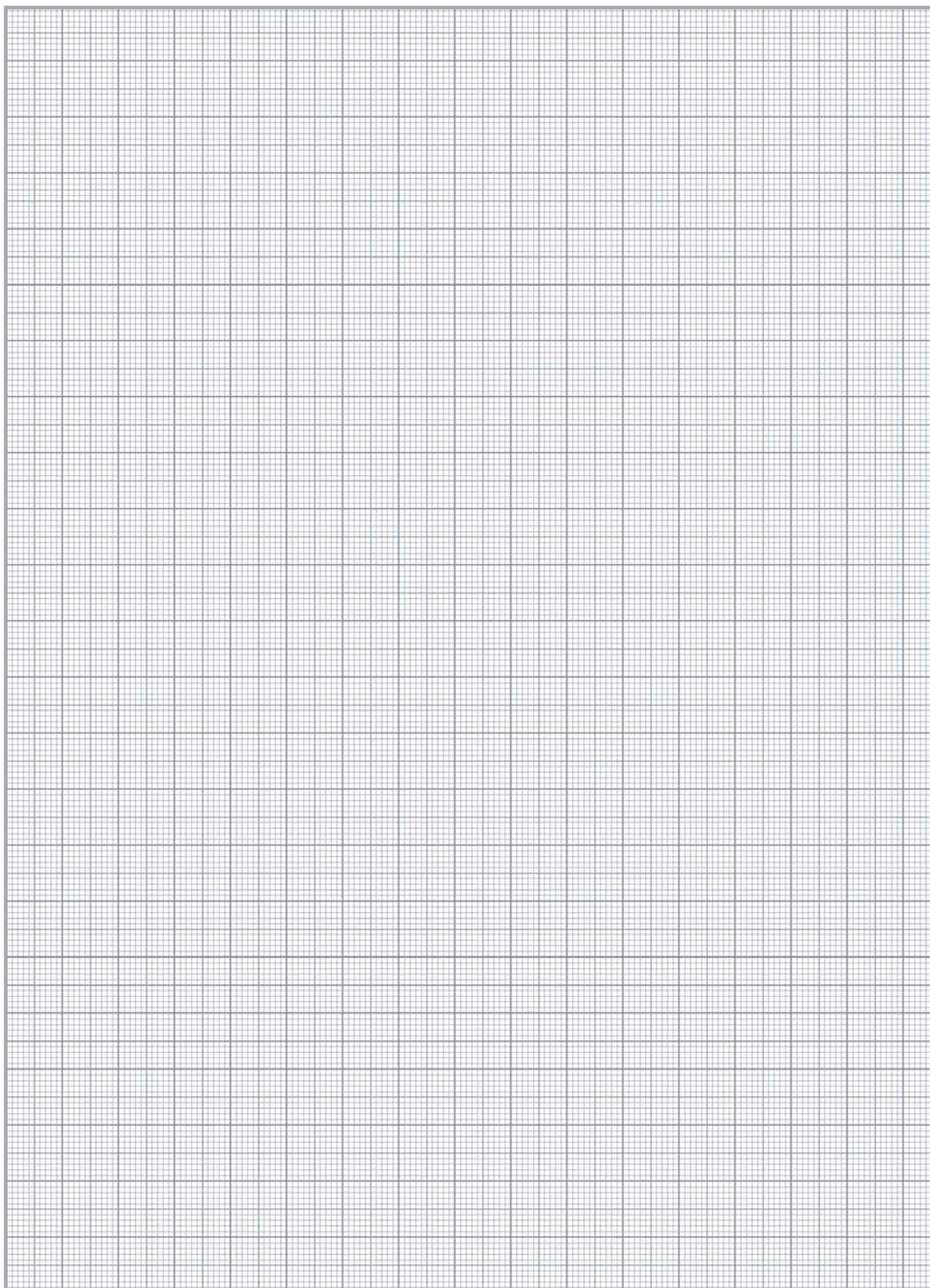
| MEDIUM                                 | CONC.       | HDPE |      | LDPE |      | PETG |      | PP   |      | PVC HARD |          |
|----------------------------------------|-------------|------|------|------|------|------|------|------|------|----------|----------|
|                                        |             | 20°C | 50°C | 20°C | 50°C | 20°C | 50°C | 20°C | 50°C | 20°C     | 50°C     |
| Isopropyl alcohol                      | techn. pure | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 1        |
| Kerosene                               |             | -    | -    | -    | -    | 1    | -    | 1    | -    | -        | -        |
| Kerosene                               |             | 1    | 1    | 2    | 3    | 1    | 1    | 2    | 2    | 1        | 1        |
| Ketone                                 |             | 1    | 1    | -    | -    | -    | -    | -    | -    | -        | -        |
| Lactic acid                            | 3 %         | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 2        |
| Lactic acid                            | 80 %        | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 2        |
| Lactic acid                            | 85 %        | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 2        |
| Lactic acid                            | aqueous     | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | -        | -        |
| Lead acetate                           | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1        |
| Lead-(II)-acetate                      |             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | -        | -        |
| Linseed oil                            | techn. pure | 1    | 1    | 1    | 2    | 1    | -    | 1    | 1    | 1        | 2        |
| Liqueurs                               |             | 1    | -    | -    | -    | 1    | -    | 1    | -    | 1        | -        |
| Lubricating oil                        |             | 1    | 2    | 1    | 2    | 1    | 1    | 2    | -    | 1        | 1        |
| Magnesium sulphate                     | saturated   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1        |
| Magnesium sulphate                     | aqueous     | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | -        | -        |
| Magnesiumchloride                      | aqueous     | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 1        |
| Maleic acid                            | saturated   | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 2        |
| Maleic acid                            | aqueous     | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | -        | -        |
| Mercury                                | pur         | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1        |
| Mercury chloride                       | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | -        | -        |
| Methanol                               |             | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 2        |
| Methoxybutanol                         | 100 %       | -    | -    | 1    | 2    | -    | -    | 1    | 2    | -        | -        |
| Methyl acetate                         | techn. pure | 1    | -    | 1    | 1    | 2    | -    | 1    | 2    | 3        | 3        |
| Methyl alcohol (methanole)             |             | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 2        |
| Methyl ethyl ketone                    |             | 1    | 2    | 2    | 3    | 3    | 3    | 1    | 2    | 3        | 3        |
| Methylen chloride                      |             | 3    | 3    | 3    | 3    | 3    | 3    | 2    | 3    | 3        | 3        |
| Milk                                   |             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1        |
| Molasses                               |             | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 2        |
| Molasses wort                          |             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1        |
| Mowilith D                             |             | 1    | -    | -    | -    | 1    | 1    | 1    | -    | 1        | -        |
| Naphthaline                            | techn. pure | 1    | 2    | -    | -    | -    | -    | 1    | 2    | 3        | 3        |
| Naphthaline                            | 100 %       | -    | -    | 1    | 2    | -    | -    | 1    | 2    | 3        | 3        |
| Nitric acid                            | 100 %       | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3        | 3        |
| Nitric acid                            | 1-10 %      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1        |
| Nitric acid                            | 50 %        | 1    | 3    | 2    | 3    | 1    | 1    | 2    | 3    | 1        | 2        |
| Nitric acid                            | 66 %        | 1    | 3    | 2    | 3    | 3    | 3    | 3    | 3    | 3        | 3        |
| Nitric acid                            | 70 %        | 1    | 3    | 2    | 3    | 3    | 3    | 3    | 3    | 3        | 3        |
| Nitrous dilution                       |             | -    | -    | -    | -    | -    | -    | 2    | 2    | -        | -        |
| Nitrous gases                          | diluted     | 1    | 1    | -    | -    | -    | -    | 1    | 3    | 1        | 2        |
| Oil (vegetable) and animal fats        |             | 1    | 2    | 1    | 2    | 1    | -    | 1    | 2    | 1        | 1        |
| Oil, essential                         |             | 3    | 3    | 2    | 3    | -    | -    | 2    | 3    | -        | -        |
| Oleic acid                             | techn. pure | 1    | 2    | 1    | 2    | 1    | -    | 1    | 2    | 1        | 1        |
| Oleum                                  | 10 % SO3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3        | 3        |
| Oleum vapours                          | low         | 3    | 3    | -    | -    | -    | -    | 3    | 3    | 1        | -        |
| Olive oil                              |             | 1    | 2    | -    | -    | 1    | -    | 1    | 1    | 1        | 1        |
| Oxalic acid                            |             | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 1        |
| Oxalic acid                            | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | -        | -        |
| Ozone                                  |             | 2    | 3    | 2    | 3    | -    | -    | 2    | 3    | 1        | 1        |
| Palm kernel oil acid                   | 100%        | -    | -    | -    | -    | -    | -    | -    | -    | 1        | 1        |
| Palm-oil                               |             | 1    | 2    | -    | -    | 1    | -    | 1    | 2    | 1        | -        |
| Perchloric acid                        |             | 1    | 3    | 1    | 3    | 3    | 3    | 1    | 3    | 1        | 3        |
| Petrol                                 |             | 1    | 2    | 2    | 3    | 1    | 1    | 2    | 3    | 1        | 3        |
| Petrol 10% ethyl alcohol               |             | -    | -    | -    | -    | 2    | -    | -    | -    | -        | -        |
| Petrol 10% methanol                    |             | -    | -    | -    | -    | 2    | -    | -    | -    | -        | -        |
| Petrol ether                           |             | 1    | -    | -    | -    | -    | -    | -    | -    | -        | -        |
| Petrol normal                          |             | -    | -    | -    | -    | 2    | -    | -    | -    | -        | -        |
| Petrol normal unleaded                 |             | -    | -    | -    | -    | 2    | -    | -    | -    | -        | -        |
| Petrol Super unleaded                  |             | -    | -    | -    | -    | 2    | -    | -    | -    | -        | -        |
| Petroleum                              |             | 1    | 1    | 1    | 3    | 1    | 1    | 1    | 2    | 1        | 1        |
| Phenol                                 | 100 %       | 1    | 2    | 2    | 2    | 3    | 3    | 1    | 1    | 3        | 3        |
| Phenol                                 | 10 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 2        |
| Phosgene                               | techn. pure | -    | -    | 2    | -    | -    | -    | 2    | 3    | 3        | 3        |
| Phosgene                               | liquid      | -    | -    | -    | -    | -    | -    | -    | -    | -        | -        |
| Phosgene                               | gaseous     | -    | -    | -    | -    | -    | -    | 2    | 3    | -        | -        |
| Phoshoric acid                         | 1-5 %       | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 1        |
| Phoshoric acid                         | aqueous 20% | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | -        | -        |
| Phoshoric acid                         | 30 %        | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | -        | -        |
| Phoshoric acid                         | 85 %        | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 1        |
| Phosphorus pentoxide                   | techn. pure | 1    | -    | -    | -    | -    | -    | 1    | -    | 1        | -        |
| Photographic developers                |             | 1    | 2    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 2        |
| Photographic developers                |             | -    | -    | -    | -    | -    | -    | -    | -    | 1        | 1 (40°C) |
| Photographic emulsion                  | any         | -    | -    | -    | -    | -    | -    | -    | -    | 1        | 1 (40°C) |
| Photographic fixing bath               |             | -    | -    | -    | -    | -    | -    | -    | -    | 1        | 1 (40°C) |
| Phthalilic acid                        | saturated   | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 3        |
| Plasticiser, DBS                       |             | -    | -    | -    | -    | 1    | 1    | -    | -    | -        | -        |
| Plasticiser, DOP                       |             | -    | -    | -    | -    | 1    | 1    | -    | -    | -        | -        |
| Polish remover                         |             | -    | -    | -    | -    | -    | -    | 1    | 2    | -        | -        |
| Potash                                 | saturated   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | -        |
| Potash                                 | aqueous     | 1    | 1    | -    | -    | 1    | 1    | 1    | 1    | -        | -        |
| Pottassium bichromate                  | saturated   | 1    | 1    | 1    | -    | 2    | -    | 1    | 1    | 1        | 2        |
| Pottassium borate                      | 10 %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2        |
| Pottassium borate                      | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | -        | -        |
| Pottassium bromate                     | saturated   | 1    | 2    | 1    | 2    | -    | -    | 1    | 1    | 1        | 2        |
| Pottassium bromate                     | aqueous     | -    | -    | -    | -    | -    | -    | 1    | 1    | -        | -        |
| Pottassium bromide                     | any         | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2        |
| Pottassium chloride                    | aqueous     | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 1        |
| Pottassium chromate                    | saturated   | 1    | -    | 1    | 1    | -    | -    | 1    | 1    | 1        | 1        |
| Pottassium chromate                    | aqueous     | -    | -    | -    | -    | -    | -    | 1    | 1    | -        | -        |
| Pottassium hydroxide                   | 50 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 2        |
| Pottassium hydroxide                   | conc.       | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 1        |
| Pottassium hydroxide                   | aqueous     | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | -        | -        |
| Pottassium hydroxide                   | 10 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | -        | -        |
| Pottassium hydroxide (Caustic pottash) | 1 %         | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 1        |
| Pottassium nitrate                     | 50 %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1        |
| Pottassium nitrate                     | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | -        | -        |
| Pottassium permanganate                |             | 1    | 2    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2        |
| Pottassium permanganate                | aqueous     | -    | -    | -    | -    | 1    | 1    | 1    | 1    | -        | -        |
| Pottassium sulphate                    | any         | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 2        |

| MEDIUM                                                                          | CONC.       | HDPE |      | LDPE |      | PETG |      | PP   |      | PVC HARD |          |
|---------------------------------------------------------------------------------|-------------|------|------|------|------|------|------|------|------|----------|----------|
|                                                                                 |             | 20°C | 50°C | 20°C | 50°C | 20°C | 50°C | 20°C | 50°C | 20°C     | 50°C     |
| Propane                                                                         | liquid      | 1    | -    | 1    | -    | 1    | -    | 1    | -    | 1        | -        |
| Propane                                                                         | gaseous     | 2    | 3    | 3    | 3    | 1    | -    | 1    | 3    | 1        | 1        |
| Propanoic acid                                                                  | 50 %        | 1    | 2    | 1    | 2    | -    | -    | 1    | 1    | 1        | 2        |
| Propanoic acid                                                                  | techn. pure | 1    | 2    | 1    | 2    | -    | -    | 1    | 2    | 1        | -        |
| Propyl alcohol                                                                  |             | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 1        |
| Propyl alcohol                                                                  | 100 %       | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 1        |
| Pyridine                                                                        |             | 1    | 2    | -    | 1    | -    | -    | 2    | 2    | 3        | 3        |
| Roasting gases                                                                  | any         | -    | -    | -    | -    | -    | -    | 1    | 1    | -        | -        |
| Sea water                                                                       |             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2        |
| Silicic acid                                                                    | any         | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1        |
| Silicone oil                                                                    |             | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 3        |
| Silver nitrate                                                                  |             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1        |
| Silver nitrate                                                                  | aqueous     | 1    | 1    | -    | -    | 1    | 1    | 1    | 1    | -        | -        |
| Silver salt                                                                     | saturated   | 1    | 1    | -    | -    | 1    | 1    | 1    | 1    | 1        | 2        |
| Soap solution                                                                   | any         | 1    | 1    | -    | -    | 1    | 1    | 1    | 1    | 1        | 2        |
| Sodium carbonate                                                                |             | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | -        | -        |
| Sodium carbonate                                                                |             | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 1        |
| Sodium carbonate                                                                | saturated   | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 1        |
| Sodium carbonate                                                                | aqueous     | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | -        | -        |
| Sodium carbonate                                                                | saturated   | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | -        |
| Sodium carbonate                                                                | aqueous     | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | -        | -        |
| Sodium chloride                                                                 | any         | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2        |
| Sodium chloride                                                                 | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | -        | -        |
| Sodium fluoride                                                                 | saturated   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | -        |
| Sodium hydroxide                                                                | 1 %         | 1    | 1    | 1    | 1    | 2    | 2    | 1    | 1    | 1        | 1        |
| Sodium hydroxide                                                                | 50 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 1        |
| Sodium hydroxide                                                                | 30 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 2        |
| Sodium hydroxide                                                                | 45 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 2        |
| Sodium hydroxide                                                                | 60 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | -        | -        |
| Sodium hydroxide                                                                | aqueous     | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | -        | -        |
| Sodium hypochlorite                                                             |             | -    | -    | -    | -    | 2    | 2    | 2    | 2    | -        | -        |
| Sodium hypochlorite                                                             | 12 % Cl     | -    | -    | -    | -    | 2    | 2    | 1    | 1    | -        | -        |
| Sodium hypochlorite                                                             | 15 %        | 1    | 1    | 1    | 1    | 2    | 2    | 1    | 1    | 1        | 1        |
| Sodium hypochlorite                                                             | 50 %        | 2    | 2    | 2    | 2    | 3    | 3    | 2    | 2    | -        | -        |
| Sodium hypochlorite                                                             | saturated   | 1    | 2    | 1    | 2    | 3    | 3    | 1    | 2    | 1        | 2        |
| Sodium hypochlorite                                                             | diluted     | 1    | 2    | 1    | 2    | 2    | 2    | 1    | 2    | 1        | 2        |
| Sodium hypochlorite                                                             | aqueous     | -    | -    | -    | -    | 2    | 2    | 2    | 2    | -        | -        |
| Sodium hypochlorite solution                                                    | 20 %        | 1    | 2    | 1    | 2    | 3    | 3    | 1    | 2    | 1        | 2        |
| Sodium hypochlorite solution                                                    | 50 %        | 2    | 2    | 2    | 2    | 3    | 3    | 2    | 2    | 1        | -        |
| Sodium hypochlorite solution                                                    | diluted     | 1    | 2    | 1    | 2    | 2    | -    | 1    | 2    | 1        | 2        |
| Sodium nitrate                                                                  | saturated   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2        |
| Sodium nitrate                                                                  | aqueous     | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | -        | -        |
| Sodium silicate                                                                 | aqueous     | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | -        | -        |
| Sodium silicate                                                                 | any         | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 2        |
| Sodium sulfide                                                                  | aqueous     | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | -        | -        |
| Spindle oil                                                                     |             | 2    | 2    | 1    | 2    | 1    | -    | 1    | 3    | 2        | -        |
| Starch dilution                                                                 | any         | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1        |
| Starch sirup                                                                    |             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1        |
| Stearic acid                                                                    | crystals    | 1    | 2    | 1    | 2    | 1    | -    | 1    | 2    | 1        | 1        |
| Styrene                                                                         | 100 %       | 3    | 3    | 2    | 3    | 1    | 1    | 2    | 3    | 3        | 3        |
| Succinic acid                                                                   | 50 %        | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | -        |
| Succinic acid                                                                   | saturated   | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 2        |
| Succinic acid                                                                   | any         | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 1        |
| Sugar sirup                                                                     |             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2        |
| Sulphur                                                                         | techn. pure | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2        | -        |
| Sulphur dioxide                                                                 | humid       | 1    | 1    | 1    | 1    | -    | -    | 1    | 2    | 1        | 1        |
| Sulphur dioxide                                                                 | liquid      | 2    | 3    | 3    | 3    | -    | -    | 3    | 3    | 2        | 3        |
| Sulphur trioxid                                                                 |             | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3        | 3        |
| Sulphuric acid                                                                  | 1-6 %       | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 1        |
| Sulphuric acid                                                                  | 20 %        | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 1        |
| Sulphuric acid                                                                  | 40 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 2        |
| Sulphuric acid                                                                  | 60 %        | 1    | 2    | 1    | 2    | 3    | 3    | 1    | 2    | 1        | 1        |
| Sulphuric acid                                                                  | 80 %        | 1    | 1    | 1    | 1    | 3    | 3    | 1    | 1    | 1        | 1        |
| Sulphuric acid                                                                  | 95 %        | 2    | 3    | 2    | 3    | 3    | 3    | 2    | 3    | 1        | 3        |
| Sulphuric acid                                                                  | smoking     | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3        | 3        |
| Tallow                                                                          | techn. pure | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 1        |
| Tannic acid                                                                     |             | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | -        | -        |
| Tanning extracts                                                                | usual       | 1    | 1    | 1    | 1    | -    | -    | 1    | 2    | -        | -        |
| Tanning extracts, vegetable                                                     | usual       | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | -        |
| Terpentine                                                                      |             | -    | -    | -    | -    | 1    | 1    | -    | -    | -        | -        |
| Terpentine oil                                                                  |             | 1    | 1    | 2    | 3    | 1    | -    | 3    | 3    | 1        | 2        |
| Tetralin                                                                        |             | 2    | 3    | 2    | 3    | 1    | -    | 3    | 3    | -        | -        |
| Thionyl chloride                                                                | techn. pure | 3    | 3    | 3    | 3    | -    | -    | 3    | 3    | 3        | 3        |
| Thionyl chloride                                                                |             | 3    | 3    | 3    | 3    | -    | -    | 3    | 3    | 3        | 3        |
| Toluene                                                                         |             | 2    | 3    | 2    | 3    | 1    | -    | 2    | 3    | 3        | 3        |
| Transformer oil                                                                 | 100 %       | 1    | 2    | 2    | 2    | 1    | 1    | 1    | 2    | 1        | -        |
| Trichlorethylene                                                                | 100 %       | 2    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3        | 3        |
| Triethanol amine                                                                | techn. pure | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 2        | -        |
| Urea                                                                            | aqueous     | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | -        | -        |
| Urea (carbamide)                                                                |             | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 3        |
| Urine                                                                           |             | 1    | 1    | 1    | 1    | 1    | -    | 1    | 1    | 1        | 2        |
| Waste water each kind<br>(also strongly sour, however without organic solvents) |             | -    | -    | -    | -    | -    | -    | -    | -    | 1        | 1(40° C) |
| Water                                                                           |             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2        |
| Water, distilled/desalted                                                       |             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 2        |
| Wax alcohol                                                                     | techn. pure | 2    | 3    | 2    | 3    | 1    | -    | 2    | 3    | 1        | 1        |
| Wine vinegar                                                                    |             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | -        |
| Wine vinegar                                                                    |             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1        |
| Wine vinegar                                                                    |             | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 1        |
| Wine vinegar                                                                    | aqueous     | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | -        | -        |
| Wines                                                                           |             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1        |
| Xylene                                                                          |             | 2    | 3    | 2    | 3    | -    | -    | 3    | 3    | 3        | 3        |
| Yeast                                                                           | any         | 1    | 12   | 1    | 1    | 1    | -    | 1    | 1    | 1        | -        |
| Zinc chloride                                                                   | 10 %        | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | 1        | 2        |
| Zinc chloride                                                                   | aqueous     | 1    | 1    | 1    | 1    | -    | -    | 1    | 1    | -        | -        |
| Zinc sulphate                                                                   | 10 %        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1        |
| Zinc sulphate                                                                   | aqueous     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | -        | -        |

**Your notes:**

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KAUTEX TEXTRON GmbH & Co. KG  
Alter Heerweg 2a · D-53123 Bonn  
Tel.: 0049 (0)228 98 68 - 100  
Fax: 0049 (0)228 98 68 - 200  
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KAUTEX TEXTRON GmbH & Co. KG  
Alter Heerweg 2a · D-53123 Bonn  
Tel.: 0049 (0)228 98 68 - 100  
Fax: 0049 (0)228 98 68 - 200  
Email: [Sales.STVP@kautex.textron.com](mailto:Sales.STVP@kautex.textron.com)  
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