

**GTGvials.de infochroma.ch**

Glastechnik Gräfenroda GmbH

infochroma ag

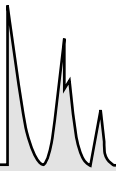
**Chromatography Vials & Caps**  
**Depyrogenated Vials & Closures**  
**Storage Vials & Septum Vials**  
**HPLC Filters & Syringes**  
**Salli Saddle Chairs**  
**Accessory & more**



see also [vials.ch](http://vials.ch) as well as [infochroma.ch](http://infochroma.ch) and [chemoline.ch](http://chemoline.ch)

**Catalogue 2018**





**Yetino Rodovich**

**Fläschli Joseph**

**Rosa Maria**

**Harry Hygiene**

**Carlo Carbon-Chroma**

## Vials and gnomes, how do they go together?

**A justified question. The answer is simple. Both originate from Gräfenroda.**

Gräfenroda is home to the Glastechnik Gräfenroda GmbH (GTG) where the GTG vials have been produced since the Wende. And in Gräfenroda gnomes have been lovingly handcrafted since 1874. Furthermore these companies as well as infochroma ag and chemoLine are entirely in family hands. The focus is on excellent product quality and service.

The gnomes have turned into a company tradition and have grown into a family. Gnomes are said to be clever, to possess good manual skills, to be hard working and honest. As virtual personality each gnome has a name. And with a wink we have assigned each of our gnomes with a mission.

### 2017 - Harry Hygiene

#### **the Supervisor of the Controlled Zone**

Gnome protective, Harry Hygiene keeps a close watch over the controlled zone. Under his supervision germs and pyrogenes have no chance of survival.

### 2011 - Yetino Rodovich

#### **the Guardian of the Pure Sample**

The Yeti Gnome watches over the purity of your sample so that it runs smoothly on its way to the analysis result without clogging the channels.

### 2014 - Carlo Carbon-Chroma - the Family Gnome

Carlo Carbon-Chroma has a C in the centre of a diamond on his jumper. This „C“ stands for the sixth element carbon, the molecular basis for all life on earth. It also represents chromatography and chemoLine and last but not least commitment for cohesion and solidarity within the family.

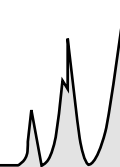
### 2010 - Rosa Maria

#### **The Laboratory Lady Gnome**

Rosa Maria is the patron saint of the laboratory. She watches over the accuracy of your analysis and protects your laboratory from wrong.

### 2012 - Fläschli Joseph - the Swiss Wrestling Gnome

Schwingen (Swiss wrestling) is a traditional Swiss contest, a contest of power in fairness and friendship. Thus our Fläschli Joseph represents the fairness in the daily competition of power at work and at home



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## International

see page 82 -83

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Im Langacher 44, 8606 Greifensee, CH

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*Gnomes from the Garden Gnome manufactory*

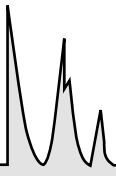
*Philipp Griebel, Gräfenroda, D*

[www.zwergen-griebel.de](http://www.zwergen-griebel.de)

*in Switzerland: [www.zwergshop.ch](http://www.zwergshop.ch)*

Catalogue 2017 Version 1801\_180718

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# Chromatography vials for optimised microsampling

## Chromatography vials for optimised microsampling

**Most chromatography autosamplers use vials with the dimension 12 x 32 mm. An optimised solution is asked for, if only a small amount of sample is available or full recovery of the sample is required.**



Most chromatography autosamplers use vials with the dimension 12 x 32 mm. These vials take «2 ml» of sample. If only a small amount of sample is available or full recovery of the sample is required, an optimised solution is asked for. At the same time the vial should not require a support and the standard dimension of the vial should be kept to fit standard autosamplers.

We have 3 different microsampling vials that meet these requirements. There is one important question you have to ask yourself in order to find the right vial for your requirement. How much sample do you have and how much sample do you need for your analysis. The difference between those two, the sample volume that remains in the vial, we call residual volume. And this residual volume tells you which vial you need.

Many competitors talk about the so-called dead volume, the amount of sample that cannot be retrieved from the vial but this volume cannot be easily defined. How far the needle descends into the vial, the geometry of the needle, how much sample is

required to cover the needle hole so that no air is retrieved with the sample, all these aspects define the actual dead volume of an application. We find that giving the dead volume without exact specifications of these parameters does not make any sense.

The residual volume of our vials is defined by the following parameters: the remaining fluid level is at 4 mm from the bottom of the vial, given that normally the needle descends to about 1 - 2 mm above the bottom of the vial and the needle should be covered with at least 2 mm of sample in order to guarantee a reliable sample taking. The actual dead volume of our vials is generally much lower than the assumed fluid level at the bottom of the vial, but if you are using a needle with side hole 4 mm may be too little.

A standard 12 x 32 mm Vial for example has a residual volume of 400 µl.

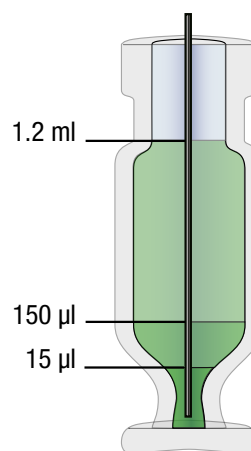
## When to use which one of our 3 micro vials?

### the 1.2 ml Vµ-Vial our „Vase Vial“



Our Vase Vial - the Vµ-Vial - has the largest volume. It takes 1.2 ml if filled to the shoulder and it's residual volume is 15 µl.

As the Vase Vial is the most economic solution, we recommend it for all applications with a residual volume of  $\geq 15 \mu\text{l}$ . The Vase Vial is also the most universal of our three microsampling vials as it is available with all common closure types including the 8-425 screw thread which we call «NM» or «Narrow Mouth» as it has a small opening. The Vase Vial is our own invention and the form as well as the production process is protected by an European patent.

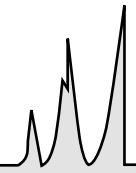


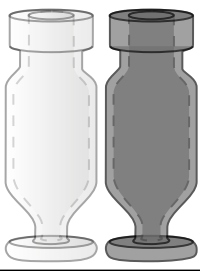
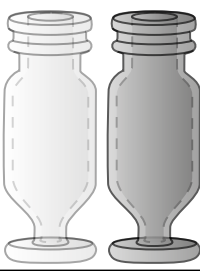
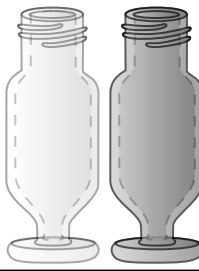
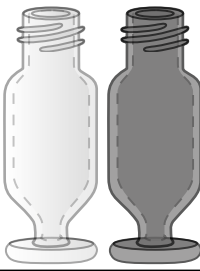
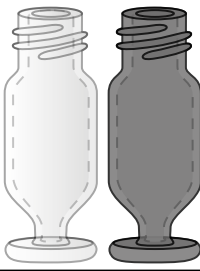
- **small residual volume**
- **no support required**
- **can be used with large and small volumes of sample**
- **available in clear (H) or amber (D) borosilicate glass**

Vµ-Vial: EP 0860365



# Chromatography vials for optimised microsampling

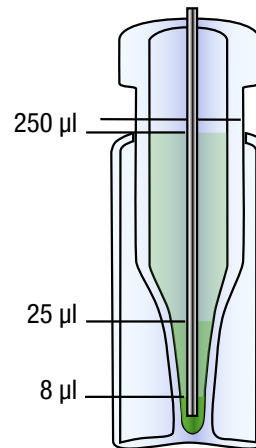


Crimp V $\mu$ -Vial	Snap/Crimp V $\mu$ -Vial	Agilent compatible Screw V $\mu$ -Vial	Narrow Mouth Screw V $\mu$ -Vial	Wide Mouth Screw V $\mu$ -Vial
				
<b>8002-CV-H/V15<math>\mu</math></b> <b>8002-CV-D/V15<math>\mu</math></b>	<b>8002-SC-H/V15<math>\mu</math></b> <b>8002-SC-D/V15<math>\mu</math></b>	<b>8004-HP-H/V15<math>\mu</math></b> <b>8004-HP-D/V15<math>\mu</math></b>	<b>8004-NM-H/V15<math>\mu</math></b> <b>8004-NM-D/V15<math>\mu</math></b>	<b>8004-WM-H/V15<math>\mu</math></b> <b>8004-WM-D/V15<math>\mu</math></b>

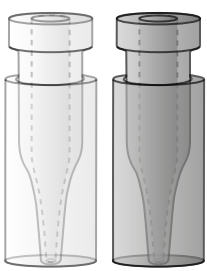
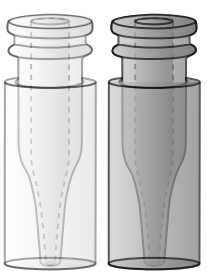
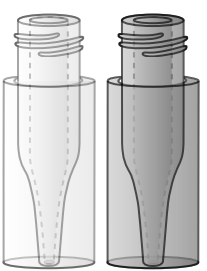
## the 250 $\mu$ l Insert Vial iV2 $\mu$ - also ideal for volatile samples and micro-reactions

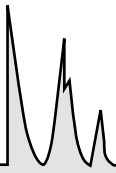


Our most recent development is the iV2 $\mu$ -Vial where the vial head is on the insert. Thus the insert itself is closed with the cap so that no sample can volatilise into the outer shell of the vial. The body of the vial is a simple shell which is fused with the insert at the bottom. We produce these vials on a one-station machine of our own design which allows us to draw the insert longer and more narrow than with common techniques. The total volume is 250  $\mu$ l and the residual volume is 8  $\mu$ l. The iV2 $\mu$ -Vial is especially suited for volatile micro samples and gas chromatography applications and completes our programme at the bottom end volume vise.



- **insert itself closed with cap**  
the sample can't escape into the space between insert and outer shell; ideal for micro-reactions, for volatile samples and lyophilisation
- **long narrow pointed insert**  
also suitable for side-hole needles; very small dead volume (< 5 $\mu$ l)
- **established design**  
outer shell matches 12 x 32 mm standard; no support needed; very robust design

Crimp iV2 $\mu$ -Vial	Snap/Crimp iV2 $\mu$ -Vial	Agilent kompatibles Screw iV2 $\mu$ -Vial
		
<b>8002-CV-H/iV2<math>\mu</math></b> <b>8002-CV-D/iV2<math>\mu</math></b>	<b>8002-SC-H/iV2<math>\mu</math></b> <b>8002-SC-D/iV2<math>\mu</math></b>	<b>8004-HP-H/iV2<math>\mu</math></b> <b>8004-HP-D/iV2<math>\mu</math></b>



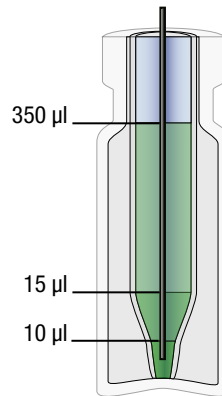
# Chromatography vials for optimised microsampling

## the $\mu$ -Vial with fused 350 $\mu$ l insert



Our first microvial, historically, is the i3 $\mu$  type with a fused insert which forms a common base with the outer vial. In its functionality it is like using vial and insert only that the insert of the  $\mu$ -Vial is firmly fused with the supporting vial which has

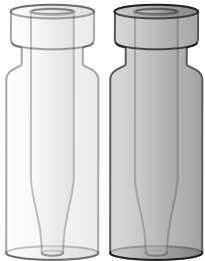
the advantage that the insert fits snug into the vial opening and stands upright without extra support. The total volume is 350  $\mu$ l with a residual volume of 10  $\mu$ l.



- 350  $\mu$ l insert fused into a standard 12 x 32 mm vial
- centred and upright insert
- robust design
- available in clear (H) or amber (D) borosilicate glass

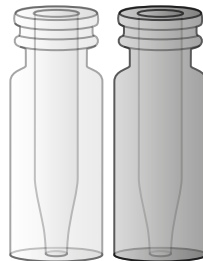
*$\mu$ -Vial: Patent No. 196 12 265*

**Crimp  $\mu$ -Vial**



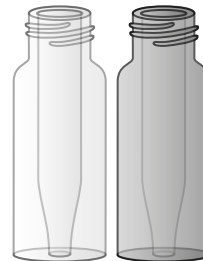
8002-CV-H/i3 $\mu$   
8002-CV-D/i3 $\mu$

**Snap/Crimp  $\mu$ -Vial**



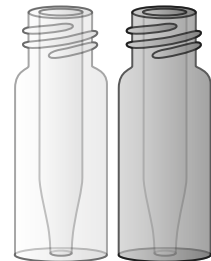
8002-SC-H/i3 $\mu$   
8002-SC-D/i3 $\mu$

**Agilent compatible Screw  $\mu$ -Vial**



8004-HP-H/i3 $\mu$   
8004-HP-D/i3 $\mu$

**Wide Mouth Screw  $\mu$ -Vial**



8004-WM-H/i3 $\mu$   
8004-WM-D/i3 $\mu$

## 1.5 ml Vials with white write-on patch and graduation

**Crimp-Vial**



BL02-CV-H  
BL02-CV-D

**Snap/Crimp-Vial**



BL02-SC-H  
BL02-SC-D

**Agilent compatible Screw-Vial**

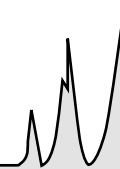


BL04-HP-H  
BL04-HP-D

**Glass:**

<b>H</b>	clear glass
<b>D</b>	amber glass

# pp-Pure Vial - Polypropylene vial



## pp-Pure Vial - Polypropylene vial for sample volumes from 100 - 700 µl



Polypropylene vial which may be used for volumes from 100 - 700 µl.

### available as

- Crimp Vial and Snap Crimp Vial (see pages 24 & 26)
- Agilent Technologies compatible Screw Vial (see page 28).

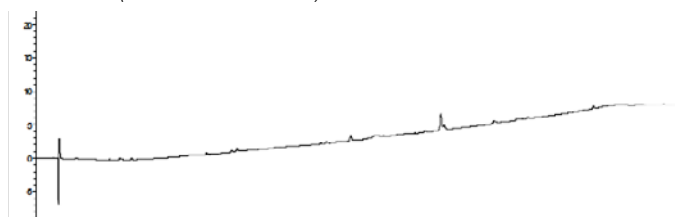
### Test Conditions:

A pp-Pure Vial and a competitor's polypropylene vial were filled with a mixture of 1 : 1 acetonitrile/water. In addition, the pp-Pure Vial was immersed into a container containing the same solvent. After an incubation period of approx. 24h at room temperature, the solvents in the three containers were analysed for UV-active impurities from the containers' material by means of RP-HPLC.

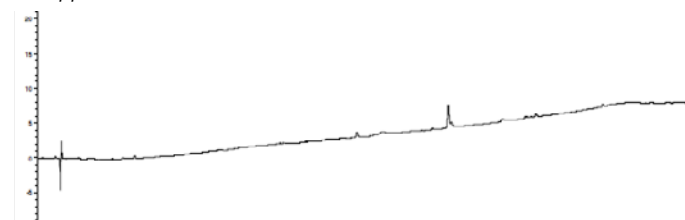
### HPLC-Method:

The extracts were separated by RP-HPLC and an acetonitrile gradient. Detection was carried out in a low UV-range. This screening method allows the recording of a wide spectrum of potential extractable substances. As comparison served a mixture of lead compounds of often used plastic additives with a concentration of approx. 2.5 mg/l. The sensitivity of the method lies at approx. 0.5 mg/l (0.5 ppm).

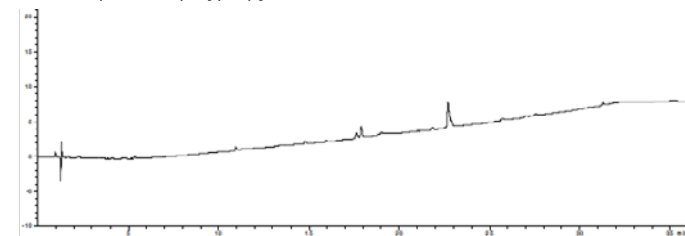
Blank (acetonitrile/water 1:1)



pp-Pure Vial



competitor's polypropylene vial



lead compounds	class of substances
Diethylphthalate	Phthalate (plasticiser)
Butylhydroxitoluole	Phenolic Antioxidants
Tinuvin 328	nitrogenous UV-stabiliser

Time	Mobile Phase A	Mobile Phase B
0 min.	95 %	5 %
30 min.	5 %	95 %
35 min.	5 %	95 %
36 min.	50 %	50 %

### HPLC-Conditions:

Column: Nucleosil 120-3 C18 125\*4 mm  
 Flow: 1.0 mL/min.  
 Detection: 220 and 340 nm  
 Temperature: 40°C  
 Injection Volume: 100 µl  
 Mobile Phase A: 0.01 M Phosphorous Acid  
 Mobile Phase B: Acetonitrile

**pp-Pure Vial** - In comparison with the blank there were no additional signals detected, neither in the filled nor in the immersed pp-Pure vial. The two chromatograms were identical.

**competitors' polypropylene vial** - In comparison to the blank there was a bigger signal in the retention area of 23 minutes.

## KapOni-Pure - the septum free Septum Cap G094\*-KOP02

With the wide use of MS Detectors and increasing sensitivity, there is an increased problem with ghost peaks in the daily analysis. These ghost peaks have their source in material with which the sample is coming into contact up to detection. One possibility to avoid this problem is the use of our ms-Pure septum, which is considerably cleaner because it is non-pigmented and was specifically developed to guarantee the best results in Chromatography.

But even the ms-Pure Septum can't perform miracles, it is after all still a silicone/PTFE septum. When the needle penetrates the septum, smallest particles of the septum are scraped off into the sample; these particles from the septum material may interfere in GC showing as depolymerised siloxane peaks.

Our solution is the KapOni-Pure a septum free septum, which is moulded from inert and plasticiser free pp-Pure polypropylene. The sealing element is moulded as a funnel with a thin moulded septum at the bottom end of the funnel which seals the vial; even after the seal has been penetrated by the syringe needle, the funnel functions as re-condensation zone so that evaporation is smaller than with standard one-piece PP caps with moulded septum. In addition the needle is guided by the funnel which lengthens the life span of the needle.



### G094\*-KOP02

9 mm screw cap with sealing element from inert and plasticiser free pp-Pure-polypropylene

replace «\*» with the **cap colour** of your choice:

					
B = blue	G = green	R = red	S = black	W = white	Y = yellow

[www.chemoline.ch](http://www.chemoline.ch)

### Fläschli Joseph

(Product number: 57-0037)

Swiss wrestling gnome  
made from terracotta  
hand painted  
height: approximately 27 cm  
weight: approximately 450 g



[www.chemoline.ch](http://www.chemoline.ch)

### Crystal ball

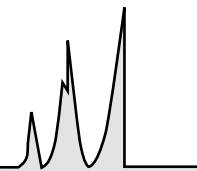
(Product number: 56-1250)

Full glass ball for photo shootings  
from clear borosilicate glass  
diameter: 70 mm  
comes in bag and  
with wooden support ring





# ms-Pure - non-pigmented silicone/PTFE septum

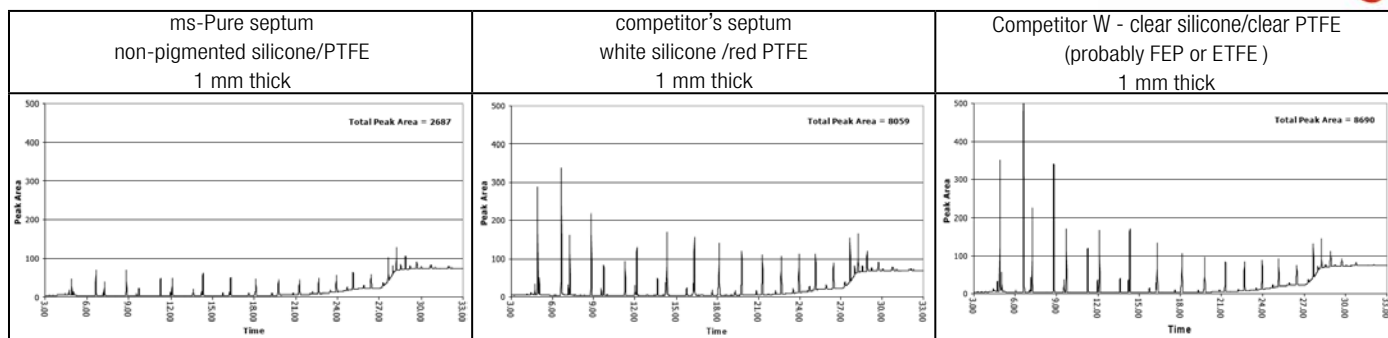


## ms-Pure septum - non-pigmented silicone/PTFE septum

With the increasing sensitivity of analytical instruments there is an increasing demand for pure low bleed septum material to prevent sample contamination with extractable substances from the septum. The ms-Pure silicone/PTFE septum is produced from natural non-pigmented silicone/PTFE. Tests show that it is over 60 % cleaner than „standard“ silicone/PTFE septums on the market.



### Evaluation of overall bleed characteristics using gas chromatography



### ms-Pure septum ideal for MS applications:

- non-pigmented low-bleed silicone of highest quality
- resists coring
- excellent re-seal ability
- intended for multiple injections
- low compression set for storage reliability

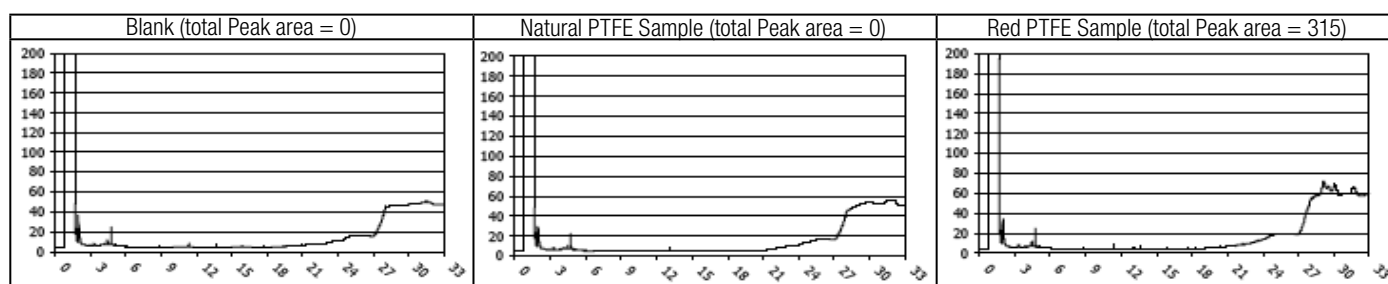
### available as:

- silicone/PTFE
- silicone/PTFE pre-slit
- PTFE/silicon/PTFE



### Bleed comparison between natural and red PTFE sample using gas chromatography

Intuitively, one would surmise that pigmented materials (i.e. those that are coloured in some way) would be more likely to pose as a contaminant source when compared to materials that are not pigmented. This study compares two (2) 0.01 mm thick samples of PTFE. One is red in colour and the other is non-pigmented or natural. The total peak area illustrates that the natural (non-pigmented) PTFE shows a value of (0) zero, while the red PTFE yielded a total peak area of 315. Using lower bleed materials provides truer readings, eliminates another potential error source, decreases sample contamination, and improves productivity.

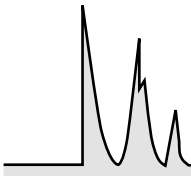


### Procedure

GC: the septum was extracted in (50 mg/ml) dichloromethane:methanol (50:50) for 24 hours. It was then analysed via GC under the conditions on the right.

For control purposes a blank was carried out after each injection to prevent sample carry over.

Column	Agilent DB-1 30.0 m x 320 µm (19091Z-213)
Detection	FID
Gas flow	30 ml/min.
Air flow	400 ml/min.
Make-up gas	25.0 ml/min. (He)
Detector temperature	300 °C
Injection volume	1.0 µl (splitless)
Oven	50 °C kept for 3 minutes 50-100°C @ 25°C / min. 100-300°C @10°C/min. 300-325°C @25°C/min. (kept for 5 minutes)
Pressure	25 psi during 27 Min., 50 psi during 27-33 min.



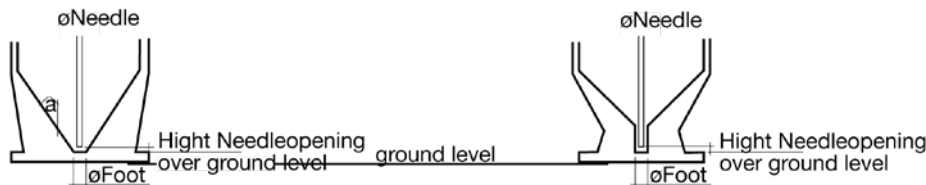
## VMax-Vial - the big „Vase“ for optimised microsampling

We can produce any standard vial up to 60 ml with our patented „Vase“ foot for optimised microsampling.

The VMax-Vial has a cylindrical foot. We chose a „cylindrical foot“ over a „cone foot“ as we think a cylindrical foot is technically superior for the sample taking in an autosampler.

A sampler usually pierces the sealing septum with a needle which descends to a defined height to take the sample. The needle has two functions, to pierce the septum and to withdraw the sample. The needle should be formed so that it easily pierces the septum. If the needle has a bevel tip it must not hit the bottom of the vial or the needle tip will be bent which will negatively influence the further piercing of the septum. If the needle has a cone tip it must not hit the bottom of the vial either as the needle whole could become sealed by the vial bottom so that no sample is taken. If a needle with side hole is used the system may be adjusted so that the needle tip rests on the bottom of the vial but still the needle hole is above the bottom of the vial. Independent of the needle geometry, the highest point at which the sample enters the needle defines the death volume of a vial.

In order to get the maximum sample return, air should usually not be sucked into the needle with the sample. This requires minimal sample coverage over the needle hole. For most samplers, it can be said that the needle descends to a defined level above the intended withdrawing level (commonly 2.5 mm above withdrawing level). As the withdrawing level is at the bottom of the vial, the vial producer must assure that the vial bottom has a reproducible inner height. The dead volume can be derived with the measure that the bottom of the vial has a radius  $r$  ( $=\varnothing$  foot/2) and the needle hole is above the bottom at height  $h$ .



The death volume of the cone version forms a cone stump with the side angle  $a$ ; the cylindrical version, as produced by GTG, forms a cylinder.

The death volume of the cone version results in  $V_{KS} = \pi \cdot h / 3 (3r^2 + h^2 \tan^2(a) + 2r \cdot h \cdot \tan(a))$

The death volume of the cylindrical version results in:  $V_{Zyl} = \pi \cdot r^2 \cdot h$

in this example applies: death volume to needle hole  $r = 1.5$  mm,  $h = 1.5$  mm and  $a = 45^\circ \rightarrow \tan(a) = 1$

$V_{KS} = 21.2 \mu\text{l}$

$V_{Zyl} = 10.6 \mu\text{l}$

This means that the dead volume of the cone version is bigger by a share of  $\pi \cdot h / 3 (h^2 \cdot \tan^2(a) + 2r \cdot h \cdot \tan(a))$ . With an angle  $a$  bigger  $45^\circ$ ,  $\tan(a) > 1$  and increases considerably. The same results when the needle hole has to be covered with sample. In this case height  $h =$  height  $h$  (needle above base) +  $\ddot{u}$  (coverage with sample).

in this example applies:

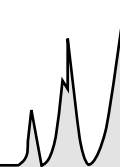
death volume to coverage  $r = 1.5$  mm,  $h = h + \ddot{u} = 1.5$  mm +  $2.0$  mm =  $3.5$  mm and  $a = 45^\circ \rightarrow \tan(a) = 1$

$V_{KS} = 108.1 \mu\text{l}$

$V_{Zyl} = 24.7 \mu\text{l}$

It can be concluded that in order to minimise death volume  $\tan(a)$  one has to aim towards zero which means that a cylindrical solution is an advantage. The actual death volume has to be reduced by the displacement volume of the needle but the influence is the same for both cylindrical and conical and therefore is not shown in this calculation.

We are able to form the foot with a thorn such as is required by the geometry of the needle under the adherence of certain measurements.



## VMax-Vial - the big „Vase“ for optimised micro-sampling

- the “big” Vase Vial, volumes up to 60 ml
- stand alone, no support needed
- can be produced in any size up to 60 ml, 35 mm min. vial height required
- available with crimp or screw-top
- ideal for automated sample preparation

### Screw-top VMax-Vial

<b>G072-14/045-H/VM<math>\mu</math></b> <b>G072-14/045-D/VM<math>\mu</math></b> 3.5 ml screw-top VMax-Vial, clear (H) or amber (D) borosilicate glass, size: 14 x 45 mm, screw thread 13-425	<b>G072-19/065-H/VM<math>\mu</math></b> <b>G072-19/065-D/VM<math>\mu</math></b> 9.5 ml screw-top VMax-Vial, clear (H) or amber (D) borosilicate glass, size: 19 x 65 mm, screw thread 15-425
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<b>G072-27/057-H/VM<math>\mu</math></b> <b>G072-27/057-D/VM<math>\mu</math></b> 19 ml screw-top VMax-Vial, clear (H) or amber (D) borosilicate glass, size: 27 x 57 mm, screw thread 24-400	<b>G072-27/095-H/VM<math>\mu</math></b> <b>G072-27/095-D/VM<math>\mu</math></b> 39 ml screw-top VMax-Vial, clear (H) or amber (D) borosilicate glass, size: 27 x 95 mm, screw thread 24-400	<b>G072-27/140-H/VM<math>\mu</math></b> <b>G072-27/140-D/VM<math>\mu</math></b> 59 ml screw-top VMax-Vial, clear (H) or amber (D) borosilicate glass, size: 27 x 140 mm, screw thread 24-400
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Open-top screw caps with silicone/PTFE septum: refer to page 46 - 47.  
 Closed top, PTFE lined screw caps: see page 18.

### 20 mm crimp-top headspace VMax-Vial

<b>G006-23/045-H/VM<math>\mu</math></b> <b>G006-23/045-D/VM<math>\mu</math></b> 9.5 ml crimp-top VMax-Vial, clear (H) or amber (D) borosilicate glass, size: 23 x 45 mm	<b>G006-23/075-H/VM<math>\mu</math></b> <b>G006-23/075-D/VM<math>\mu</math></b> 19 ml crimp-top VMax-Vial, clear (H) or amber (D) borosilicate glass, size: 23 x 75 mm
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Crimp caps: see page 38.



### Screw-top headspace VMax-Vial

<b>GHS6-23/043-H/VM<math>\mu</math></b> <b>GHS6-23/043-D/VM<math>\mu</math></b> 9.5 ml screw-top VMax-Vial, clear (H) or amber (D) borosilicate glass, size: 23 x 43 mm	<b>GHS6-23/073-H/VM<math>\mu</math></b> <b>GHS6-23/073-D/VM<math>\mu</math></b> 19 ml screw-top VMax-Vial, clear (H) or amber (D) borosilicate glass, size: 23 x 73 mm
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Open-top screw caps with septum: refer to page 39.  
 Closed-top screw caps: see page 18.




## Storage Vials from 1.0 - 60 ml with closed-top, PTFE lined screw cap

Our Storage Vial line comprises 6 vial diameters and over 30 different dimensions within the volumes of 1.0 - 60 ml. The vials come assembled with closed-top PTFE lined screw cap and are supplied in a high quality card board box with a grit divider holding 100 vials. The box is also ideally suited for storing or for transportation of the vials.



				
	<b>Vial ø 12 mm</b> <b>Screw thread 9-425</b>	<b>Vial ø 14 mm</b> <b>Screw thread 13-425</b>	<b>Vial ø 17 mm</b> <b>Screw thread 15-425</b>	<b>Vial ø 19 mm</b> <b>Screw thread 15-425</b>
<b>Kit</b>	height: 24 mm height: 32 mm, V $\mu$ -Vial height: 32 mm assorted  G195X-12Kit02-H G195X-12Kit02-D	height: 26 mm height: 30 mm height: 45 mm height: 50 mm assorted  G075X-14Kit05-H G075X-14Kit05-D	height: 27 mm height: 35 mm height: 42 mm height: 60 mm height: 72 mm assorted  G075X-17Kit10-H G075X-17Kit10-D	height: 37 mm height: 50 mm height: 65 mm height: 87 mm assorted  G075X-19Kit15-H G075X-19Kit15-D
<b>1.0 ml</b>	height: 24 mm G195*-12/024-H G195*-12/024-D	height: 19 mm G075*-14/019-H G075*-14/019-D		
<b>1.2 ml</b>	height: 32 mm G195*-12/032-H/V15 $\mu$ G195*-12/032-D/V15 $\mu$			
<b>1.5 ml</b>	height: 32 mm G195*-12/032-H G195*-12/032-D	height: 22 mm G075*-14/022-H G075*-14/022-D		
<b>2 ml</b>		height: 26 mm G075*-14/026-H G075*-14/026-D		
<b>2.5 ml</b>		height: 30 mm G075*-14/030-H G075*-14/030-D	height: 27 mm G075*-17/027-H G075*-17/027-D	
<b>3.75 ml</b>		height: 45 mm G075*-14/045-H G075*-14/045-D	height: 35 mm G075*-17/035-H G075*-17/035-D	
<b>5 ml</b>		height: 50 mm G075*-14/050-H G075*-14/050-D	height: 42 mm G075*-17/042-H G075*-17/042-D	height: 37 mm G075*-19/037-H G075*-19/037-D

replace «\*» with the **cap colour** of your choice:

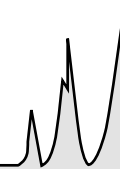
					
B = blue	G = green	R = red	S = black	W = white	Y = yellow





**Glass:**

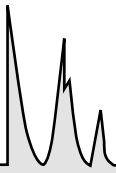
<b>H</b>	clear glass
<b>D</b>	amber glass



# Storage Vials



				
	<b>Vial ø 17 mm</b> <b>Screw thread 15-425</b>	<b>Vial ø 19 mm</b> <b>Screw thread 15-425</b>	<b>Vial ø 23 mm</b> <b>Screw thread 20-400</b>	<b>Vial ø 27 mm</b> <b>Screw thread 24-400</b>
<b>Kit</b>	height: 27 mm height: 35 mm height: 42 mm height: 60 mm height: 72 mm assorted  G075X-17Kit10-H G075X-17Kit10-D	height: 37 mm height: 50 mm height: 65 mm height: 87 mm assorted  G075X-19Kit15-H G075X-19Kit15-D	height: 37 mm height: 45 mm height: 60 mm height: 75 mm height: 85 mm assorted  G075X-23Kit25-H G075X-23Kit25-D	height: 37 mm, height: 47 mm height: 57 mm, height: 68 mm assorted  G075X-27Kit25-H G075X-27Kit25-D  height: 78 mm, height: 95 mm height: 118 mm, height: 140 mm assorted  G075X-27Kit60-H G075X-27Kit60-D
<b>7.5 ml</b>	height: 60 mm G075*-17/060-H G075*-17/060-D	height: 50 mm G075*-19/050-H G075*-19/050-D	height: 37 mm G075*-23/037-H G075*-23/037-D	
<b>10 ml</b>	height: 72 mm G075*-17/072-H G075*-17/072-D	height: 65 mm G075*-19/065-H G075*-19/065-D	height: 45 mm G075*-23/045-H G075*-23/045-D	height: 37 mm G075*-27/037-H G075*-27/037-D
<b>15 ml</b>		height: 87 mm G075*-19/087-H G075*-19/087-D	height: 60 mm G075*-23/060-H G075*-23/060-D	height: 47 mm G075*-27/047-H G075*-27/047-D
<b>20 ml</b>			height: 75 mm G075*-23/075-H G075*-23/075-D	height: 57 mm G075*-27/057-H G075*-27/057-D
<b>25 ml</b>			height: 85 mm G075*-23/085-H G075*-23/085-D	height: 68 mm G075*-27/068-H G075*-27/068-D
<b>30 ml</b>				height: 78 mm G075*-27/078-H G075*-27/078-D
<b>40 ml</b>				height: 95 mm G075*-27/095-H G075*-27/095-D
<b>50 ml</b>				height: 118 mm G075*-27/118-H G075*-27/118-D
<b>60 ml</b>				height: 140 mm G075*-27/140-H G075*-27/140-D  G055*-27/140-H <i>Vial with round base</i>



## Storage Vial with closed-top, PTFE lined screw cap

Storage Vials are supplied assembled with their closed-top, PTFE lined screw cap and are packed in high quality card board boxes with a grit divider holding 100 vials.



## Storage Vial with glass-fibre enforced polyamide screw cap

1.0 ml - 2 ml Storage Vials:  $\varnothing$  12 mm, screw thread 9-425 («HP» type)



1.0 ml 12 x 24 mm	1.2 ml V $\mu$ 12 x 32 mm <i>with small residual volume</i>	1.5 ml 12 x 32 mm
G195*-12/024-H G195*-12/024-D	G195*-12/032-H/V15 $\mu$ G195*-12/032-D/V15 $\mu$	G195*-12/032-H G195*-12/032-D

## Storage Vial with polypropylene screw cap

1.0 ml - 5 ml Storage Vials:  $\varnothing$  14 mm, screw thread 13-425



1.0 ml 14 x 19 mm	1.5 ml 14 x 22 mm	2 ml 14 x 26 mm	2.5 ml 14 x 30 mm	3.75 ml 14 x 45 mm	5 ml 14 x 50 mm
G075*-14/019-H G075*-14/019-D	G075*-14/022-H G075*-14/022-D	G075*-14/026-H G075*-14/026-D	G075*-14/030-H G075*-14/030-D	G075*-14/045-H G075*-14/045-D	G075*-14/050-H G075*-14/050-D

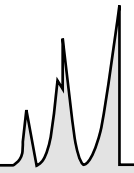
replace «\*» with the **cap colour** of your choice:

B = blue	G = green	R = red	S = black	W = white	Y = yellow

**Glass:**

<b>H</b>	clear glass
<b>D</b>	amber glass

# Storage Vials



## 2.5 ml - 10 ml Storage Vials: ø 17 mm, screw thread 15-425

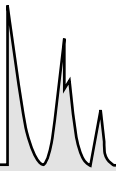


2.5 ml 17 x 27 mm	3.75 ml 17 x 35 mm	5 ml 17 x 42 mm	7.5 ml 17 x 60 mm	10 ml 17 x 72 mm
G075*-17/027-H G075*-17/027-D	G075*-17/035-H G075*-17/035-D	G075*-17/042-H G075*-17/042-D	G075*-17/060-H G075*-17/060-D	G075*-17/072-H G075*-17/072-D

## 5 ml - 15 ml Storage Vials: ø 19 mm, screw thread 15-425



5 ml 19 x 37 mm	7.5 ml 19 x 50 mm	10 ml 19 x 65 mm	15 ml 19 x 87 mm
G075*-19/037-H G075*-19/037-D	G075*-19/050-H G075*-19/050-D	G075*-19/065-H G075*-19/065-D	G075*-19/087-H G075*-19/087-D



# Storage Vials

## Storage Vial with closed-top, PTFE lined screw cap

Storage Vials are supplied assembled with their closed-top, PTFE lined screw cap and are packed in high quality card board boxes with a grit divider holding 100 vials.



7.5 ml - 25 ml Storage Vial with closed-top, PTFE lined screw cap:  $\varnothing$  23 mm, screw thread 20-400



7.5 ml 23 x 37 mm	10 ml 23 x 45 mm	15 ml 23 x 60 mm	20 ml 23 x 75 mm	25 ml 23 x 85 mm
G075*-23/037-H G075*-23/037-D	G075*-23/045-H G075*-23/045-D	G075*-23/060-H G075*-23/060-D	G075*-23/075-H G075*-23/075-D	G075*-23/085-H G075*-23/085-D

replace «\*» with the **cap colour** of your choice:

B = blue	G = green	R = red	S = black	W = white	Y = yellow

**Glass:**

<b>H</b>	clear glass
<b>D</b>	amber glass

[www.chemoline.ch](http://www.chemoline.ch)

### Hoody «overreaction»

(Product number: size L : 56-5402)

80% cotton (325 g/m<sup>2</sup>)  
and 20% polyester  
various colours available



[www.chemoline.ch](http://www.chemoline.ch)

### pharmacist bottles with groundglass stopper

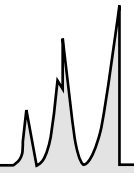
(Product number: 50 ml amber glass: 50-4051)

clear or amber glass  
various volumes available





# Storage Vials



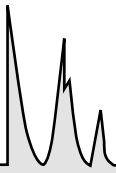
**10 ml - 60 ml Storage Vial with closed-top screw cap: ø 27 mm, screw thread 24-400**



<b>10 ml</b> <b>27x 37 mm</b>	<b>15 ml</b> <b>27 x 47 mm</b>	<b>20 ml</b> <b>27 x 57 mm</b>	<b>25 ml</b> <b>27x 68 mm</b>
G075*-27/037-H G075*-27/037-D	G075*-27/047-H G075*-27/047-D	G075*-27/057-H G075*-27/057-D	G075*-27/068-H G075*-27/068-D



<b>30 ml</b> <b>27 x 78 mm</b>	<b>40 ml</b> <b>27 x 95 mm</b>	<b>50 ml</b> <b>27 x 118 mm</b>	<b>60 ml</b> <b>27 x 140 mm</b>	<b>60 ml</b> <b>27 x 140 mm</b>
G075*-27/078-H G075*-27/078-D	G075*-27/095-H G075*-27/095-D	G075*-27/118-H G075*-27/118-D	G075*-27/140-H G075*-27/140-D	vial with round base G055*-27/140-H



## 1.0 ml - 5 ml Storage Vial with "hard" Melamine Resin screw cap (may be used up to 120°C)

Vials ø 14 mm, screw thread 13-425

Storage Vial with «hard» Melamine Resin PTFE lined screw cap which may be used up to 120 °C. Vials and caps are supplied assembled and are packed in high quality card board boxes with a grit divider holding 100 vials.



1.0 ml 14 x 19 mm	1.5 ml 14 x 22 mm	2 ml 14 x 26 mm	2.5 ml 14 x 30 mm	3.75 ml 14 x 45 mm	5 ml 14 x 50 mm
G085*-14/019-H G085*-14/019-D	G085*-14/022-H G085*-14/022-D	G085*-14/026-H G085*-14/026-D	G085*-14/030-H G085*-14/030-D	G085*-14/045-H G085*-14/045-D	G085*-14/050-H G085*-14/050-D

## Closed-top, PTFE lined screw caps

Screw threads: 9-425, 13-425, 15-425, 20-400 & 24-400

	<p><b>Screw thread 9-425</b></p> <p>PTFE-lined Polyamide Screw Cap (Type "HP"), ribbed cap collar, for Storage Vials with volumes 1.0 ml - 2 ml; Vial ø 12 mm</p> <p><b>G195-C*/09</b></p>		<p><b>Screw thread 15-425</b></p> <p>PTFE-lined Polypropylene Screw Cap for Storage Vials with volumes 2.5 ml - 15 ml; Vial ø 17 mm &amp; 19 mm; may be used up to 80°C</p> <p><b>G075-C*/15</b></p>
	<p><b>Screw thread 13-425</b></p> <p>PTFE-lined Melamine Resin Screw Cap for Storage Vials with volumes 1.0 ml - 5 ml; Vial ø 14 mm; may be used up to 120°C</p> <p><b>G085-C*/13</b></p>		<p><b>Screw thread 20-400</b></p> <p>PTFE-lined Polypropylene Screw Cap for Storage Vials with volumes 7.5 ml - 25 ml; Vial ø 23 mm; may be used up to 80°C</p> <p><b>G075-C*/20</b></p>
	<p><b>Screw thread 13-425</b></p> <p>PTFE-lined Polypropylene Screw Cap for Storage Vials with volumes 1.0 ml - 5 ml; Vial ø 14 mm; may be used up to 80°C</p> <p><b>G075-C*/13</b></p>		<p><b>Screw thread 24-400</b></p> <p>PTFE-lined Polypropylene Screw Cap for Storage Vials with volumes 10 ml - 60 ml; Vial ø 27 mm; may be used up to 80°C</p> <p><b>G075-C*/24</b></p>

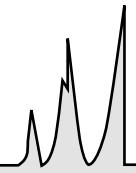
replace «\*» with the **cap colour** of your choice:

B = blue	G = green	R = red	S = black	W = white	Y = yellow

**Glass:**

<b>H</b>	clear glass
<b>D</b>	amber glass

# Storage Vials for long-term storage



## 10 & 20 ml Storage Vials for the long-term storage of volatile samples

10 and 20 ml Headspace Vials with closed-top melamine resin screw caps for the long-term storage of volatile samples. The screw caps are available in our six standard colours, either PTFE lined or with butyl rubber/PTFE septum.

### with PTFE lined screw cap



#### **GH85\*-23/043-H**

10 ml Storage Vials,  
clear glass, rounded base,  
size 23 x 43 mm

assembled with high density, closed-top,  
PTFE lined screw cap



#### **GH85\*-23/073-H**

20 ml Storage Vials,  
clear glass, rounded base,  
size 23 x 73 mm

assembled with high density, closed-top,  
PTFE lined screw cap

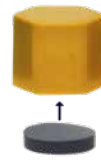
### with butyl rubber/PTFE septum



#### **GH85\*-23/043-BZFZ31-H**

10 ml Storage Vials,  
clear glass, rounded base,  
size 23 x 43 mm

assembled with high density, closed-top  
screw cap with butyl rubber/PTFE septum



#### **GH85\*-23/073-BZFZ31-H**

20 ml Storage Vials,  
clear glass, rounded base,  
size 23 x 73 mm

assembled with high density, closed-top  
screw cap with butyl rubber/PTFE septum

*also available graduated,  
see below & page 33*

## Graduated 20 ml Storage Vial for the long-term storage of volatile samples

20 ml Headspace Vials with closed-top melamine resin screw cap for the long-term storage of volatile samples. Available either PTFE lined or assembled with butyl rubber/PTFE septum.



#### **GH85\*-23/073-H/G**

20 ml Storage Vial,  
graduated at 5, 10 & 15 ml,  
clear glass, rounded base,  
size 23 x 73 mm

assembled with high density, closed-top,  
PTFE lined screw cap



#### **GH85\*-23/073-BZFZ31-H/G**

20 ml Storage Vial,  
graduated at 5, 10 & 15 ml,  
clear glass, rounded base,  
size 23 x 73 mm

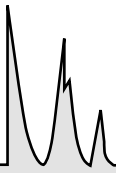
assembled with high density, closed-  
top screw cap with butyl rubber/PTFE  
septum

replace «\*» with the **cap colour** of your choice:

					
B = blue	G = green	R = red	S = black	W = white	Y = yellow

### Glass:

<b>H</b>	clear glass
<b>D</b>	amber glass



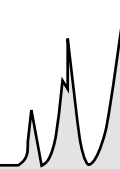
Sample Bottles complete with closed-top screw cap, volumes from 6 ml - 2500 ml



	Clear & amber Boston Round bottle	Amber wide mouth bottle	Clear wide mouth bottle	Clear square wide mouth bottle	Clear graduated wide mouth bottle	Clear & amber straight sided wide mouth bottle
<b>6 ml</b>		24 x 43 mm				
<b>15 ml</b>		31 x 50 mm		25 x 61 mm		
<b>30 ml</b>	31 x 79 mm*	37 x 65 mm		31 x 72 mm 34 x 61 mm	34 x 68 mm	43 x 43 mm*
<b>60 ml</b>	39 x 94 mm	45 x 75 mm		38 x 86 mm 39 x 89 mm	42 x 83 mm	55 x 49 mm
<b>120 ml</b>	49 x 114 mm	54 x 95 mm	52 x 96 mm	45 x 112 mm	51 x 102 mm	60 x 69 mm
<b>180 ml</b>						65 x 79 mm
<b>240 ml</b>	61 x 138 mm		62 x 104 mm	56 x 137 mm	62 x 127 mm	73 x 89 mm
<b>250 ml</b>		65 x 120 mm				
<b>300 ml</b>		65 x 100 mm				
<b>480 ml</b>	70 x 160 mm	70 x 140 mm	72 x 133 mm	68 x 167 mm	70 x 130 mm	91 x 96 mm
<b>960 ml</b>	90 x 190 mm	90 x 160 mm	94 x 177 mm	83 x 203 mm		95 x 170 mm
<b>1000 ml</b>	92 x 205 mm**	99 x 178 mm				
<b>1250 ml</b>		106 x 190 mm				
<b>1920 ml</b>			122 x 214 mm			
<b>2500 ml</b>		140 x 239 mm				
	** clear glass only ** amber glass only					* clear glass only



# Sample Bottles



## Clear & amber Boston Round Bottle

with PTFE-lined closed-top heat tolerant (max. 120°C) Thermoset plastic screw cap



volume	30 ml	60 ml	120 ml	240 ml	480 ml
dimension	31 x 79 mm	39 x 94 mm	49 x 114 mm	61 x 138 mm	70 x 160 ml
bottle with cap	8080-BR-30-H	8080-BR-60-H	8080-BR-120-H	8080-BR-240-H	8080-BR-480-H
bottle with cap	-	8080-BR-60-D	8080-BR-120-D	8080-BR-240-D	8080-BR-480-D
screw cap only	8080-C/20	8080-C/20	8080-C/22	8080-C/24	8080-C/28

volume	960 ml	1000 ml
dimension	90 x 190 mm	92 x 205
bottle with cap	8080-BR-960-H	-
bottle with cap	8080-BR-960-D	8080-BR-1000-D
screw cap only	8080-C/33	8080-C/33

## Amber wide mouth bottle

with PTFE-lined closed-top heat tolerant (max. 120°C) Thermoset plastic screw cap



volume	6 ml	15 ml	30 ml	60 ml	120 ml
dimension	24 x 43 mm	31 x 50 mm	37 x 65 mm	45 x 75 mm	54 x 95 ml
bottle with cap	8080-WM-06-D	8080-WM-15-D	8080-WM-30-D	8080-WM-60-D	8080-WM-120-D
screw cap only	8080-C/20	8080-C/28	8080-C/28	8080-C/33	8080-C/38

volume	250 ml	300 ml	480 ml	950 ml	1250 ml
dimension	65 x 120 mm	65 x 100 mm	70 x 140 mm	90 x 160 mm	106 x 190
bottle with cap	8080-WM-250-D	8080-WM-300-D	8080-WM-480-D	8080-WM-950-D	8080-WM-1250-D
screw cap only	8080-C/45	8080-C/53	8080-C/53	8080-C/53	8080-C/70

## Amber wide mouth bottle

with PTFE-lined closed-top polypropylene screw cap



volume	15 ml	30 ml	60 ml	125 ml	250 ml
dimension	31 x 50 mm	37 x 65 mm	45 x 75 mm	54 x 95 mm	65 x 120 mm
bottle with cap	8075-WM-15-D	8075-WM-30-D	8075-WM-60-D	8075-WM-125-D	8075-WM-250-D
screw cap only	8075-C/28	8075-C/28	8075-C/33	8075-C/38	8075-C/45

volume	500 ml	1000 ml	1250 ml	2500 ml
dimension	80 x 146 mm	99 x 178 mm	106 x 190 mm	140 x 239 mm
bottle with cap	8075-WM-500-D	8075-WM-1000-D	8075-WM-1250-D	8075-WM-2500-D
screw cap only	8075-C/53	8075-C/53	8075-C/70	8075-C/70

## Clear wide mouth bottle

with PTFE-lined closed-top heat tolerant (max. 120°C) Thermoset plastic screw cap



volume	120 ml	240 ml	480 ml	960 ml	1920 ml
dimension	52 x 96 mm	62 x 104 mm	72 x 133 mm	94 x 177 mm	122 x 214 mm
bottle with cap	8080-WM-120-H	8080-WM-240-H	8080-WM-480-H	8080-WM-960-H	8080-WM-1920-H
screw cap only	8080-C/48	8080-C/58	8080-C/63	8080-C/70	8080-C/89

Amber wide mouth and Boston Round bottles are also available pre-cleaned and safety coated. Further information on: <http://www.infochroma.ch/eng/probenaufbewahrung/index.html>

### Glass:

<b>H</b>	clear glass
<b>D</b>	amber glass

## Clear square wide mouth bottle

with PTFE-lined closed-top heat tolerant (max. 120°C) Thermoset plastic screw cap



<b>volume</b>	15 ml	30 ml	30 ml	60 ml	60 ml
<b>dimension</b>	25 x 61 mm	31 x 72 mm	34 x 61 mm	38 x 86 mm	39 x 89 mm
<b>bottle with cap</b>	8080-FS-15-H	8080-FS-30-H	8080-ST-30-H	8080-FS-60-H	8080-ST-60-H
<b>screw cap only</b>	8080-C/20	8080-C/24	8080-C/24	8080-C/28	8080-C/33

<b>volume</b>	120 ml	240 ml	480 ml	960 ml
<b>dimension</b>	45 x 112 mm	56 x 137 mm	68 x 167 mm	83 x 203 mm
<b>bottle with cap</b>	8080-FS-120-H	8080-FS-240-H	8080-FS-480-H	8080-FS-960-H
<b>screw cap only</b>	8080-C/33	8080-C/43	8080-C/48	8080-C/58

## Clear graduated wide mouth bottle

with PTFE-lined closed-top heat tolerant (max. 120°C) Thermoset plastic screw cap



<b>volume</b>	30 ml	60 ml	120 ml	240 ml	480 ml
<b>dimension</b>	34 x 68 mm	42 x 83 mm	51 x 102 mm	62 x 127 mm	70 x 130 mm
<b>bottle with cap</b>	8080-MM-30-H	8080-MM-60-H	8080-MM-120-H	8080-MM-240-H	8080-MM-480-H
<b>screw cap only</b>	8080-C/33	8080-C/38	8080-C/48	8080-C/58	8080-C/70

## Clear & amber straight sided wide mouth bottle

with PTFE-lined closed-top heat tolerant (max. 120°C) Thermoset plastic screw cap



<b>volume</b>	30 ml	60 ml	120 ml	180 ml	240 ml
<b>dimension</b>	43 x 43 mm	55 x 49 mm	60 x 69 mm	65 x 79 mm	73 x 89 mm
<b>bottle with cap</b>	8080-SR-30-H	8080-SR-60-H	8080-SR-120-H	8080-SR-180-H	8080-SR-240-H
<b>bottle with cap</b>	-	8080-SR-60-D	8080-SR-120-D	8080-SR-180-D	8080-SR-240-D
<b>screw cap only</b>	8080-C/43	8080-C/53	8080-C/58	8080-C/63	8080-C/70

<b>volume</b>	480 ml	960 ml
<b>dimension</b>	91 x 96 mm	95 x 170 mm
<b>bottle with cap</b>	8080-SR-480-H	8080-SR-960-H
<b>bottle with cap</b>	8080-SR-480-D	8080-SR-960-D
<b>screw cap only</b>	8080-C/89	8080-C/89

**Glass:**

<b>H</b>	clear glass
<b>D</b>	amber glass

[www.chemoline.ch](http://www.chemoline.ch)

### The chemist's aperitif set

(Product number: 50-1182)

The set contains:

- 1 wide-mouth Erlenmeyer flask (1 litre) with cork stopper
- 4 wide-mouth Erlenmeyer flasks (50 ml)



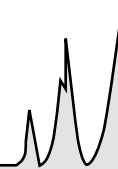
[www.chemoline.ch](http://www.chemoline.ch)

### Paper pH test strip with universal indicator

(Product number: 50-1681)

The plastic dispenser box contains 200 pH test strips (10 x 70 mm)





## Closed-top or open-top screw caps



	<b>Closed-top heat tolerant (max. 120°C) Thermoset plastic screw cap, PTFE lined Cap colour green</b>	<b>Closed-top polypropylene screw cap with PTFE septum Cap colour white</b>	<b>Open-top polypropylene screw cap with silicone/PTFE septum Cap colour white</b>
<b>screw thread</b>	<b>product no.</b>	<b>product no.</b>	<b>product no.</b>
<b>20-400</b>	8080-C/20	8075-C/20	G074W-SKFW34/20
<b>22-400</b>	8080-C/22	8075-C/22	-
<b>24-400</b>	8080-C/24	8075-C/24	G074W-SKFW34/24
<b>28-400</b>	8080-C/28	8075-C/28	8B80W-C/28 (bonded)
<b>33-400</b>	8080-C/33	8075-C/33	8B80W-C/33 (bonded)
<b>38-400</b>	8080-C/38	8075-C/38	-
<b>43-400</b>	8080-C/43	8075-C/43	-
<b>45-400</b>	8080-C/45	8075-C/45	-
<b>48-400</b>	8080-C/48	8075-C/48	-
<b>53-400</b>	8080-C/53	8075-C/53	-
<b>58-400</b>	8080-C/58	8075-C/58	8B80W-C/58 (bonded)
<b>63-400</b>	8080-C/63	8075-C/63	-
<b>70-400</b>	8080-C/70	8075-C/70	-
<b>83-400</b>	8080-C/83	-	-
<b>89-400</b>	8080-C/89	8075-C/89	-

[www.infochroma.ch](http://www.infochroma.ch)

### Salli saddle chair

(Product number: MultiAdjuster red: SalliMulti-MBL05011-WR)

split saddle chair  
for a natural posture

Various models in various  
colours available



[www.chemoline.ch](http://www.chemoline.ch)

### Beaker

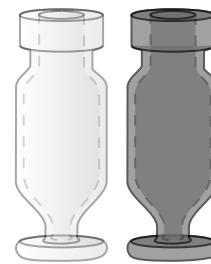
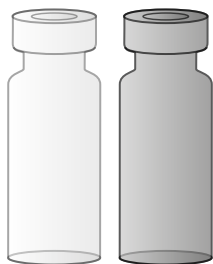
(Product number: 400 ml: 50-1546)

Low form  
with handle and beak-shaped  
spout, made from  
SIMAX®-laboratory glass

various sizes available



## 12 x 32 mm Crimp vials & caps



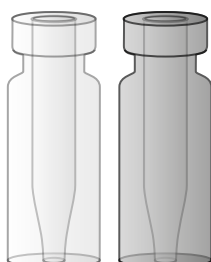
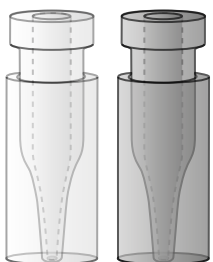
**G002-CV-H**  
**G002-CV-D**

1.5 ml crimp vial,  
clear or amber borosilicate glass,  
size: 12 x 32 mm

**BL02-CV-H**  
**BL02-CV-D**

1.5 ml crimp vial with  
white write-on patch and graduation,  
clear or amber borosilicate glass,  
size: 12 x 32 mm

**8002-CV-H/V15μ**  
**8002-CV-D/V15μ**  
1.2 ml crimp Vμ-Vial,  
clear or amber borosilicate glass,  
15 μl residual volume,  
size: 12 x 32 mm



**8002-CV-H/iV2μ**  
**8002-CV-D/iV2μ**

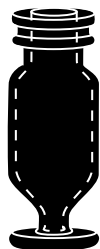
Crimp iV2μ-Vial, clear or amber borosilicate  
glass, with pointed narrow 250 μl insert,  
insert directly closed with cap,  
8 μl residual volume,  
size: 12 x 32 mm

**8002-CV-H/i3μ**  
**8002-CV-D/i3μ**

Crimp μ-Vial,  
clear or amber borosilicate glass,  
fused 350 μl insert,  
10 μl residual volume,  
size: 12 x 32 mm

**G002-SC-PP/i17μ**

700 μl snap/crimp vial, polypropylene,  
may be used for 100 μl - 700 μl,  
size: 12 x 32 mm



**8002-CV-D/V15μ/BLACK**

for light sensitive samples  
1.2 ml crimp Vμ-Vial, amber  
borosilicate glass with black,  
opaque coating,  
size: 12 x 32 mm

## Crimping and de-capping tools

plain cap manual hand crimper,  
height adjustable

for 11 mm crimp caps G002-CZ  
for 20 mm crimp caps G006-CZ



manual hand de-capper

for 11 mm crimp caps G002-DCZ  
for 20 mm crimp caps G006-DCZ

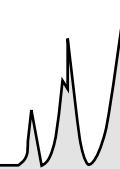


further crimping and de-capping tools see page 37

**Glass:**

<b>H</b>	clear glass
<b>D</b>	amber glass

# Crimp vials & caps



## Aluminium crimp caps










Aluminium crimp caps with rubber/PTFE septum for routine analysis should also have the necessary purity and be produced within the necessary tolerances. We noticed that the cheapest types don't necessarily meet the quality requirements of our customers.

Therefore our standard caps are tested for extractable substances in cooperation with Interlabor Belp, CH. For the convenient handling in the laboratory our caps are supplied in a clear PET screw-top box.

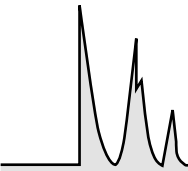


With the increased sensitivity of detectors, there is an increased problem of ghost-peaks sourcing from phthalate and siloxane bleeding from the septum, which is used to seal the vial. Our ms-Pure silicone/PTFE septum minimises the risk of ghost peaks. However, if the source of the ghost peak is siloxane, we recommend the use of an aluminium septum with a PTFE sealing ring to prevent ghost peaks in your analysis.

And we recommend the use of a silicone/aluminium septum, if impurities are dissolved into the solvent through the PTFE because the PTFE is too porous. This occurs especially if the sample is held in the Autosampler over an extended period of time.

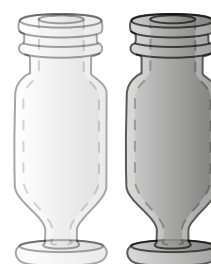
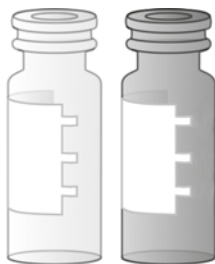
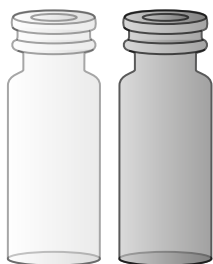
	septum material	thickness	septum colour	cap colour	product no.
<b>ms-Pure silicone</b>	silicone/PTFE 	1 mm	clear/clear	clear green red	G003-ACC-SKFK10 G003-ACG-SKFK10 G003-ACR-SKFK10
<b>ms-Pure silicone</b> <i>pre-slit</i>	silicone/PTFE 	1 mm	clear/clear	clear green red	G003-ACC-Hi-SKFK10 G003-ACG-Hi-SKFK10 G003-ACR-Hi-SKFK10
<b>ms-Pure silicone</b> <i>multiple injections</i>	PTFE/silicone/PTFE 	1 mm	clear/clear/clear	clear green red	G003-ACC-FKSKFK10 G003-ACG-FKSKFK10 G003-ACR-FKSKFK10
<b>rubber</b> <i>tested for extractable substances in cooperation with Interlabor Belp (CH)</i>	rubber/PTFE 	1 mm	red/clear	clear blue green red yellow	G003-AC-Ru/Te G003-ACB-Ru/Te G003-ACG-Ru/Te G003-ACR-Ru/Te G003-ACY-Ru/Te
<b>pigmented silicone</b>	silicone/PTFE 	1 mm	white/red	clear green red	G003-ACC-SWFR10 G003-ACG-SWFR10 G003-ACR-SWFR10
<b>pigmented silicone</b> <i>multiple injections</i>	PTFE/silicone/PTFE 	1 mm	red/white/red	clear green red	G003-ACC-FRSWFR10 G003-ACG-FRSWFR10 G003-ACR-FRSWFR10
<b>aluminium with PTFE-O-sealing-ring</b> <i>for trace analysis and TPF-crimping systems</i>	aluminium 	0.1 mm	clear	clear	G003-ACC-FOAL01
<b>pigmented silicone/aluminium foil</b> <i>for high temperature analysis</i>	silicone / aluminium 	1.3 mm	white/silver	clear	G003-ACC-SWAL13
<b>flanged skirting</b> <i>for high temperature analysis</i>	PTFE 	0.3 mm	clear	clear	G003-ACZ-FW03



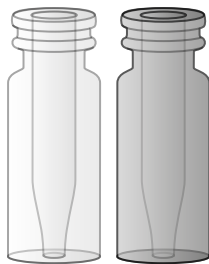
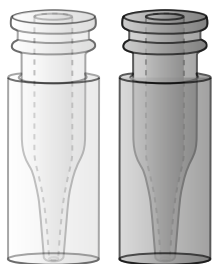


# Snap/crimp vials & caps and markers

## Snap/crimp vials & caps



<p><b>G002-SC-H</b> <b>G002-SC-D</b></p> <p>1.5 ml snap/crimp Vial, clear or amber borosilicate glass, size: 12 x 32 mm</p>	<p><b>BL02-SC-H</b> <b>BL02-SC-D</b></p> <p>1.5 ml snap/crimp Vial with white write-on patch and graduation, clear or amber borosilicate glass, size: 12 x 32 mm</p>	<p><b>8002-SC-H/V15<math>\mu</math></b> <b>8002-SC-D/V15<math>\mu</math></b></p> <p>V<math>\mu</math>-Vial, 1.2 ml snap/crimp Vial, clear or amber borosilicate glass, 15 <math>\mu</math>l residual volume, size: 12 x 32 mm</p>
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<p><b>8002-SC-H/iV2<math>\mu</math></b> <b>8002-SC-D/iV2<math>\mu</math></b></p> <p>Snap/crimp iV2<math>\mu</math>-Vial, clear or amber borosilicate glass, with pointed narrow 250 <math>\mu</math>l insert, insert directly closed with cap, 8 <math>\mu</math>l residual volume, size: 12 x 32 mm</p>	<p><b>8002-SC-H/i3<math>\mu</math></b> <b>8002-SC-D/i3<math>\mu</math></b></p> <p>Snap/crimp <math>\mu</math>-Vial, clear or amber borosilicate glass, with fused 350 <math>\mu</math>l insert, 10 <math>\mu</math>l residual volume, size: 12 x 32 mm</p>	<p><b>G002-SC-PP/i17<math>\mu</math></b></p> <p>700 <math>\mu</math>l snap/crimp Vial, polypropylen, may be used for 100 <math>\mu</math>l - 700 <math>\mu</math>l, size: 12 x 32 mm</p>
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### Glass:

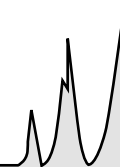
<b>H</b>	clear glass
<b>D</b>	amber glass

## Metallic marker for the labelling of glass vials

A test showed, that the Edding 780 Paint Marker is best suited for labelling vials.



blue 80PM-E780B	red 80PM-E780R	silver 80PM-E780A	white 80PM-E780W
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## Snap caps

### ms-Pure non-pigmented silicone/PTFE septum

The ms-Pure silicone/PTFE septum is produced from natural non-pigmented silicone/PTFE. Tests show that it is 60 % purer than „standard“ silicone/PTFE septa from other producers. With an increasing sensitivity of analytical instruments, there is an increasing demand for extra pure septum material to prevent a contamination of the sample with extractable substances from the septum.



For the convenient handling in the laboratory, autosampler vial caps from the infochroma production are supplied in a clear screw-top pet box.

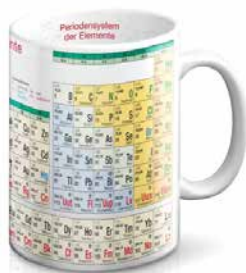
	septum material	thickness	septum colour	cap colour	product no.
<b>ms-Pure silicone</b>	silicone/PTFE 	1 mm	clear/clear	clear blue red	G003-SCC-SKFK10 G003-SCB-SKFK10 G003-SCR-SKFK10
<b>ms-Pure silicone</b> <i>pre-slit</i>	silicone/PTFE 	1 mm	clear/clear	clear blue red	G003-SCC-Hi-SKFK10 G003-SCB-Hi-SKFK10 G003-SCR-Hi-SKFK10
<b>ms-Pure silicone</b> <i>multiple injections</i>	PTFE/silicone/PTFE 	1 mm	clear/clear/clear	clear blue red	G003-SCC-FKSKFK10 G003-SCB-FKSKFK10 G003-SCR-FKSKFK10
<b>pigmented silicone</b>	silicone/PTFE 	1 mm	white/red	clear blue red	G003-SCC-SWFR10 G003-SCB-SWFR10 G003-SCR-SWFR10
<b>pigmented silicone</b> <i>multiple injections</i>	PTFE/silicone/PTFE 	1 mm	red/white/red	clear blue red	G003-SCC-FRSWFR10 G003-SCB-FRSWFR10 G003-SCR-FRSWFR10

[www.chemoline.ch](http://www.chemoline.ch)

### Coffee mug «PSE» (Periodic table of the elements)

(Product number: 57-0057)

460 ml coffee mug  
porcelain  
microwave and  
dishwasher safe



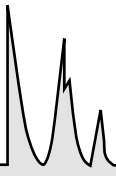
[www.chemoline.ch](http://www.chemoline.ch)

### Petri dish

(Product number: Soda-lime glass, 100 x 20 mm, 50-1473)

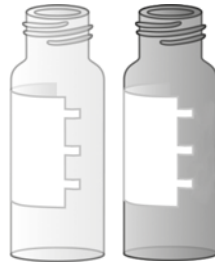
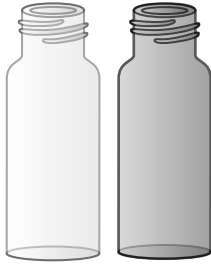
various diameters and  
glass qualities available  
also available in stainless  
steel



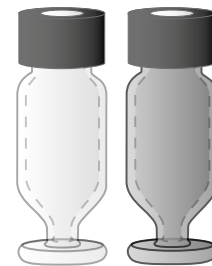
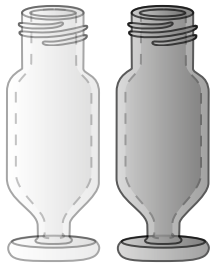


# Agilent compatible screw vials & caps

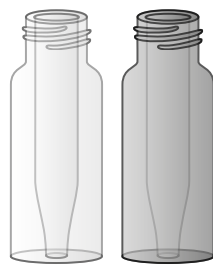
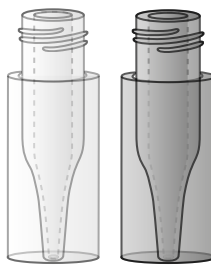
## Agilent compatible (HP) screw vials & caps



<p><b>G004-HP-H</b> <b>G004-HP-D</b> 1.5 ml Agilent compatible screw vial, clear or amber borosilicate glass, size: 12 x 32 mm</p>	<p><b>BL04-HP-H</b> <b>BL04-HP-D</b> 1.5 ml Agilent compatible screw vial, with white write-on patch and graduation, clear or amber glass, size: 12 x 32 mm</p>	<p><b>8004-HP-H/VKF11<math>\mu</math></b> 1.1 ml Agilent compatible High Recovery screw vial, clear borosilicate glass; dimension: 12 x 32 mm</p>
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<p><b>8004-HP-H/V15<math>\mu</math></b> <b>8004-HP-D/V15<math>\mu</math></b> 1.2 ml Agilent compatible screw V<math>\mu</math>-Vial, clear or amber borosilicate glass; 15 <math>\mu</math>l residual volume, size: 12 x 32 mm</p>	<p><b>8004-HP-D/V15<math>\mu</math>/BLACK</b> <i>for light sensitive samples</i> 1.2 ml Agilent compatible screw V<math>\mu</math>-Vial, amber borosilicate glass with black opaque coating, size: 12 x 32 mm</p>	<p><b>GHP4*-SKFK10-H/V15<math>\mu</math></b> <b>GHP4*-SKFK10-D/V15<math>\mu</math></b> Screw vial kit: 1.2 ml Agilent compatible screw V<math>\mu</math>-Vial, clear or amber borosilicate glass, size 12 x 32 mm, 9 mm screw cap*, 9 mm non-pigmented ms-Pure silicone/PTFE septum</p>
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<p><b>8004-HP-H/iV2<math>\mu</math></b> <b>8004-HP-D/iV2<math>\mu</math></b> Agilent compatible screw iV2<math>\mu</math>-Vial, clear or amber borosilicate glass, with narrow pointed 250 <math>\mu</math>l insert, insert directly closed with cap, 8 <math>\mu</math>l residual volume, size: 12 x 32 mm</p>	<p><b>8004-HP-H/i3<math>\mu</math></b> <b>8004-HP-D/i3<math>\mu</math></b> Agilent compatible screw <math>\mu</math>-Vial with fused 350 <math>\mu</math>l insert, clear or amber borosilicate glass; 10 <math>\mu</math>l residual volume, size: 12 x 32 mm</p>	<p><b>G004-HP-PP/i17<math>\mu</math></b> 700 <math>\mu</math>l Agilent compatible screw vial, polypropylene, may be used for 100 <math>\mu</math>l - 700 <math>\mu</math>l, size: 12 x 32 mm</p>
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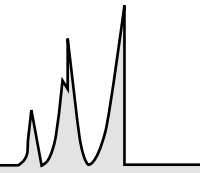
replace «\*» with the **cap colour** of your choice:

B = blue	G = green	R = red	S = black	W = white	Y = yellow

**Glass:**

<b>H</b>	clear glass
<b>D</b>	amber glass

# Agilent compatible screw vials & caps



## Agilent compatible 9 mm screw cap

### ms-Pure non-pigmented silicone/PTFE septum

The ms-Pure silicone/PTFE septum is produced from natural non-pigmented silicone/PTFE. Tests show that it is 60 % purer than „standard“ silicone/PTFE septa from other producers. With an increasing sensitivity of analytical instruments, there is an increasing demand for extra pure septum material to prevent a contamination of the sample with extractable substances from the septum.

For the convenient handling in the laboratory, autosampler vial caps from the infochroma production are supplied in a clear screw-top pet box.



	cap collar	septum material	thickness	septum colour	product no.
<b>ms-Pure silicone</b>	ripped	silicone/PTFE	1 mm	clear/clear	G004-HP-C*-SKFK10
	smooth	silicone/PTFE	1 mm	clear/clear	G004-HP-C*-SKFK10
<b>ms-Pure silicone</b> <i>pre-slit</i>	smooth	silicone/PTFE	1 mm	clear/clear	G004-HP-C*-Hi-SKFK10
<b>ms-Pure silicone</b> <i>multiple injections</i>	ripped	PTFE/silicone/PTFE	1 mm	clear/clear/clear	G004-HP-C*-FKSKFK10
	smooth	PTFE/silicone/PTFE	1 mm	clear/clear/clear	G004-HP-C*-FKSKFK10
<b>pigmented silicone</b>	ripped	silicone/PTFE	1 mm	white/red	G004-HP-C*-SWFR10
	smooth	silicone/PTFE	1 mm	white/red	G004-HP-C*-SWFR10
<b>pigmented silicone</b> <i>bonded</i>	ripped	silicone/PTFE	1 mm	beige/white	8B04B-HP-SWFW10
<b>pigmented silicone</b> <i>bonded, pre-slit</i>	ripped	silicone/PTFE	1 mm	beige/white	8B04B-HP-Hi-SWFW10



<b>8194*-12/032-SKFK10-H</b> <b>8194*-12/032-SKFK10-D</b> Screw vial kit: 1.5 ml Agilent compatible screw vial, with white write-on patch and graduation, clear or amber borosilicate glass, 9 mm screw cap* with non-pigmented ms-Pure silicone/PTFE septum	<b>G194*-12/032-SKFK10-H</b> <b>G194*-12/032-SKFK10-D</b> Screw vial kit: 1.5 ml Agilent compatible screw vial, clear or amber borosilicate glass, 9 mm screw cap* with non-pigmented ms-Pure silicone/PTFE septum	<b>G194*-12/032-SKFK10-H/V15μ</b> <b>G194*-12/032-SKFK10-D/V15μ</b> Screw vial kit: 1.2 ml Agilent compatible screw Vμ-Vial, clear or amber borosilicate glass, 9 mm screw cap* with non-pigmented ms-Pure silicone/PTFE septum
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replace «\*» with the **cap colour** of your choice:

B = blue	G = green	R = red	S = black	W = white	Y = yellow

**Glass:**

<b>H</b>	clear glass
<b>D</b>	amber glass

## Black V $\mu$ -Vial

V $\mu$ -Vial with black opaque coating for light sensitive samples; the coating prevents the light from penetrating the glass.

- ☛ small residual volume
- ☛ no support required
- ☛ standard size: 12 x 32 mm



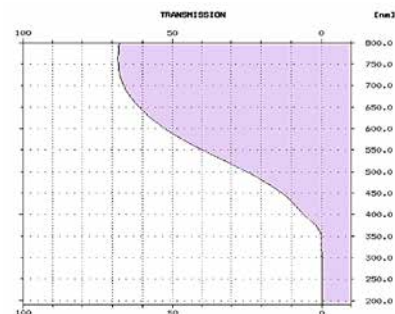
### 8002-CV-D/V15 $\mu$ /BLACK

1.2 ml crimp V $\mu$ -Vial with black opaque coating, residual volume 15 $\mu$ l, size: 12 x 32 mm

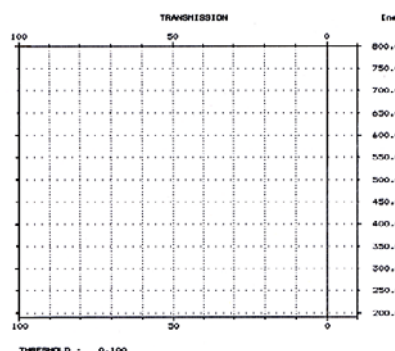
### 8004-HP-D/V15 $\mu$ /BLACK

1.2 ml Agilent compatible screw V $\mu$ -Vial with black opaque coating, residual volume 15 $\mu$ l, size: 12 x 32 mm

amber vial transmission



black vial transmission

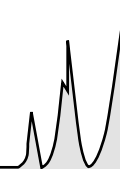


## Silanised autosampler vials

Silanised 250 $\mu$ l Agilent compatible screw iV2 $\mu$ -Vial, clear or amber borosilicate glass, with pointed narrow 250 $\mu$ l insert, insert directly closed with cap, 8 $\mu$ l residual volume, size: 12 x 32 mm		Silanised 1.2 ml V $\mu$ -Vial with 15 $\mu$ l residual volume, clear or amber borosilicate glass, size: 12 x 32 mm		Silanised 1.5 ml vial, clear or amber borosilicate glass, size: 12 x 32 mm	
	<b>crimp-top</b> 8002-CV-H/iV2 $\mu$ /SZ 8002-CV-D/iV2 $\mu$ /SZ		<b>crimp-top</b> 8002-CV-H/V15 $\mu$ /SZ 8002-CV-D/V15 $\mu$ /SZ		<b>crimp-top</b> G002-CV-H/SZ G002-CV-D/SZ
	<b>snap/crimp-top</b> 8002-SC-H/iV2 $\mu$ /SZ 8002-SC-D/iV2 $\mu$ /SZ		<b>snap/crimp-top</b> 8002-SC-H/V15 $\mu$ /SZ 8002-SC-D/V15 $\mu$ /SZ		<b>snap/crimp-top</b> G002-SC-H/SZ G002-SC-D/SZ
	<b>Agilent compatible screw-top</b> 8004-HP-H/iV2 $\mu$ /SZ 8004-HP-D/iV2 $\mu$ /SZ		<b>Agilent compatible screw-top</b> 8004-HP-H/V15 $\mu$ /SZ 8004-HP-D/V15 $\mu$ /SZ		<b>Agilent compatible screw-top</b> G004-HP-H/SZ G004-HP-D/SZ



# Waters screw vials & caps



## 4 ml Waters vials & caps



<p><b>G004-W-H</b> <b>G004-W-D</b></p> <p>4 ml screw vial, clear or amber borosilicate glass, size: 15 x 45 mm</p>	<p><b>G072-14/045-H/VM<math>\mu</math></b> <b>G072-14/045-D/VM<math>\mu</math></b></p> <p>3.5 ml screw-top VMax-Vial, clear or amber borosilicate glass, size: 14 x 45 mm, screw thread 13-425</p>	<p><b>G052-14/045-H</b></p> <p>3.5 ml round bottom screw vial, clear borosilicate glass, size: 14 x 45 mm</p>	<p><b>G0W4*-Si/Te-H</b> <b>G0W4*-Si/Te-D</b></p> <p>4 ml screw vial kit: 4 ml screw vial, clear or amber borosilicate glass 13 mm screw cap* with white silicone/ red PTFE septum</p>
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## Waters screw cap with septum

	septum material	thickness	septum colour	product no.
<b>ms-Pure silicone</b>	silicone/PTFE	1.5 mm	clear/clear	G004-W-C*-SKFK10
<b>clear silicone</b>	silicone/PTFE	1.6 mm	clear/white	G074*-SKFW16/13
<b>pigmented silicone</b>	silicone/PTFE	1 mm	white/red	G004-W-C*-Si/Te
<b>pigmented silicone</b> <i>pre-slit</i>	silicone/PTFE	1 mm	white/red	G004-W-C*-Hi-Si/Te

replace «\*» with the **cap colour** of your choice:

					
B = blue	G = green	R = red	S = black	W = white	Y = yellow

**Glass:**

<b>H</b>	clear glass
<b>D</b>	amber glass

[www.chemoline.ch](http://www.chemoline.ch)

### Weather house Taurus

(Reference: 55-1405)

Hygrometer:  
depending on humidity one  
figure or the other swings out  
of the house



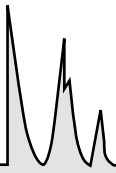
[www.chemoline.ch](http://www.chemoline.ch)

### T-shirt «toxy»

(Reference size L: 56-1317)

orange t-shirt  
with black print  
100% cotton





# Blue or green Storage Vials / Blue Boston Round Bottles

## Storage Vials made from blue or green borosilicate glass, screw thread 13-425

Storage Vials, blue (B) or green (G) borosilicate glass, complete with closed-top PTFE lined screw cap

volume	dimensions	blue glass	green glass
2 ml	14 x 26 mm	G075*-14/026-B	G075*-14/026-G
4 ml	14 x 45 mm	G075*-14/045-B	G075*-14/045-G
7.5 ml	17 x 60 mm	G075*-17/060-B	G075*-17/060-G



## Boston Round bottles from cobalt blue glass

Boston Round bottles from cobalt blue glass for the storage of light sensitive samples or essential oil. Complete with PTFE lined closed-top polypropylene screw cap.

volume	dimensions	thread	product no.
30 ml	33 x 79 mm	20-400	8075*-BR-30-B
60 ml	39 x 94 mm	20-410	8075*-BR-60-B
120 ml	49 x 113 mm	24-410	8075*-BR-120-B




## Boston Round bottle from cobalt blue PET

Boston Round bottle from cobalt blue PET for the storage of light sensitive samples. Complete with PTFE lined closed-top Thermoset screw cap.

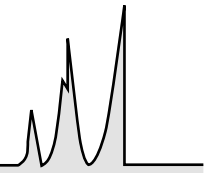
volume	dimensions	thread	product no.
30 ml	33 x 79 mm	20-410	8080-BR-30-B/PET
60 ml	39 x 94 mm	20-410	8080-BR-60-B/PET
120 ml	49 x 113 mm	24-410	8080-BR-120-B/PET
250 ml	57 x 135mm	24-410	8080-BR-250-B/PET
360 ml	62 x 153 mm	28-410	8080-BR-360-B/PET
500 ml	70 x 168 mm	28-410	8080-BR-500-B/PET



replace «\*» with the **cap colour** of your choice:

					
B = blue	G = green	R = red	S = black	W = white	Y = yellow

# Graduated Storage Vials & Polypropylene Storage Boxes



## Graduated 8 ml Storage Vial

**Vials ø 22 mm, screw thread GL18, graduated 2, 4 & 6 ml**

Available with black phenolic screw cap with sealing cone or yellow, PTFE lined phenolic screw cap.

In addition to the silkscreen or alternatively, these vials may also be barcoded.

Our storage vials are packed in high quality cardboard boxes with a grit divider for 100 vials.



### G060S-08-H/G

8 ml Storage Vial, graduated at 2, 4 & 6 ml, with black phenolic screw cap with a polyethylene sealing cone, size: 22 x 48 mm screw thread GL18



### G065Y-08-H/G

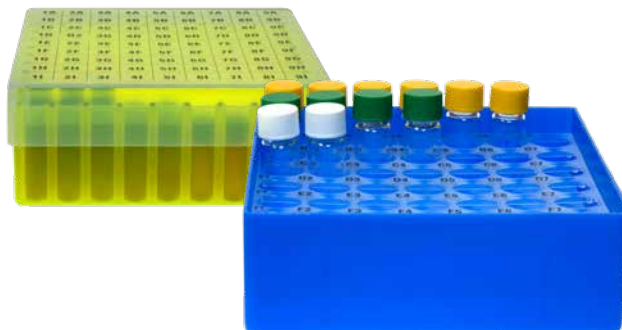
8 ml Storage Vial, graduated at 2, 4 & 6 ml, with yellow, PTFE lined phenolic screw cap, size: 22 x 48 mm screw thread GL18

## Polypropylene storage boxes

Polypropylene storage boxes with or without alpha-numeric coding.

- cold/and heat resistant -100 to +121°C
- Base available in six colours. Lid transparent.
- Base and lid available in solid black (BB) for light sensitive samples.

### Storage box 130 x 130 mm, with alpha-numeric coding

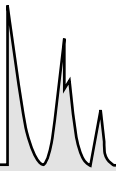


#### \* Storage box colours

- NB = neon blue
- NG = neon green
- NO = neon orange
- NR = neon red
- NY = neon yellow
- BB = black/black

<b>8235*-13045C-12/81</b>	<b>8235*-13050C-16/49</b>
for vials with ø 12 mm and a maximum height of 45 mm, room for 81 vials	for vials with ø 16.5 mm and a maximum height of 50 mm, room for 49 vials

Other storage boxes available on request. Please inquire: [gtg@infochroma.ch](mailto:gtg@infochroma.ch)



## Wash vials with clip-in diffusion insert



Autosamplers extracting the sample from the vial with a syringe, need to have the syringe rinsed after each injection to keep sample carryover at a minimum. With increasing sensitivity of the analytical instruments, the rinsing process becomes increasingly important, especially when different or viscous samples are analysed. The vial which holds the rinsing solvent is the so called wash vial.

depth in both the standard vial and the wash vial. Therefore the minimum filling level is marked on the wash vial. On the side of the waste solvent this is in reverse. The syringe should not dip into the waste solvent and the maximum filling level is marked.



Wash vials are in fact normal 4 ml screw vials which are filled with a rinsing solvent. Instead of a septum, the wash vial's screw cap has a funnel, the diffusion insert. The diffusion insert serves three purposes: it closes the vial, it reduces evaporation of the solvent and guides the needle. Common diffusion inserts are loose in the cap and when the vial is opened for filling, the diffusion insert ever so often jumps from the cap, disappearing into a dark corner of the laboratory where it is hard to be found. Our wash vials have a diffusion insert that clips into the screw cap staying in place when the vial is opened to be filled.

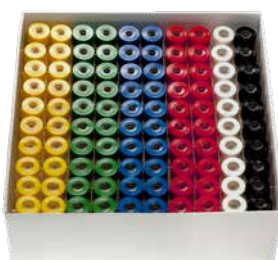


2 ml of one wash vial filling can be used, which means if the syringe is rinsed 3 times using 10 µl for each rinse, there is enough rinsing solvent for 65 injections. Even though the wash vial contains clean solvent only, the repeated insertion of the syringe will contaminate the vial and the diffusion insert. Therefore we recommend to exchange the wash vial regularly, latest after 100 injections. The same applies for the waste vial, which however can be used longer. Our wash vials are supplied in practical sets of 100 pcs, the screw caps of the solvent vials are yellow, red, green and blue, those for the waste vial are black and white.



A standard vial is 32 mm in height while the wash vial is 45 mm, therefore a good part of the solvent in the wash vial cannot be used; for naturally the syringe descends to the same

## 4 ml Wash vial kit



Our wash vials are supplied in a practical kit of 100 pcs, the solvent vials have screw caps in yellow, red, green and blue; the waste vials have screw caps in black and white.

## 10 ml Wash vial kit for CTC/PAL



### GWMB10X-GTG-H

10 ml Wash vial kit

4 x 20 Solvent vials with screw caps in the colours blue, yellow, green and red

2 x 10 Waste vials with screw caps in the colours black and white

screw caps are complete with clip-in diffusion insert

### GWMB4X-GTG-H

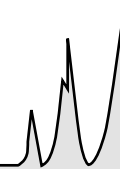
4 ml Wash vial kit

4 x 20 Solvent vials with screw caps in the colours blue, yellow, green and red

2 x 10 Waste vials with screw caps in the colours black and white

screw caps are complete with clip-in diffusion insert





**Our new premises as of 01.06.2016**



Chräbelstrasse 4, 6410 Goldau



Office

incoming goods department



Warehouse lower level



Warehouse ground floor

[www.chemoline.ch](http://www.chemoline.ch)

**Measuring cylinder DIN B**

(Product number: 250 ml: 50-1465)

clear glass  
tall cylinder  
with beaker & hexagonal foot



[www.chemoline.ch](http://www.chemoline.ch)

**Spatula made of PA plastic**

(Product number: 50-1943)

Spoon spatula made of  
glass fibre enforced polyamide  
length: 210 mm



[www.chemoline.ch](http://www.chemoline.ch)

**T-Shirt «BiEr»**

(Product number: 56-2000)

Golden imprint on  
American cotton,  
heavyweight Belcoro cotton yarn  
weight: 185 g/m<sup>2</sup>



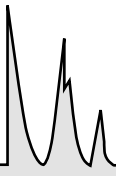
[www.chemoline.ch](http://www.chemoline.ch)

**The Chemist's beer glass «BiEr»**

(Product number: 57-0074)

for the 5th element of the English:  
"fermented barley juice"  
set of glasses  
dishwasher safe





**Crimpronic - electronic crimper**

**for the effortless and reproducible crimping of crimp vials**

The Crimpronic is an electronic crimper, in which the vial is placed with cap in place. The crimp head descends onto the vial and an electronic cylinder crimps the cap with a predefined pressure. As the Crimpronic crimps with a predefined pressure rather than against a mechanical stop, which is the case with manual crimping tools, the Crimpronic even compensates the tolerance of the glass and the septum thickness. This guarantees that one closure is identical to the next.

The Crimpronic is not faster than a manual crimper but produces much more reproducible and uniform results particularly when working with difficult closures like lyophilisation stoppers or magnetic metal caps.

Crimp heads are available for all standard cap sizes and are exchangeable by hand.

De-crimp heads for the opening of vials are also available.

**We recommend the use of the Crimpronic:**

- ☛ for reproducible crimping
- ☛ when the quality of the crimping is critical
- ☛ for closures that are difficult to crimp such as lyophilisation stoppers or magnetic steel caps
- ☛ if tenosynovitis has been an issue

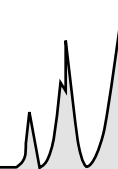


Also available with rotary disc





	<p><b>GWCR-4C11</b> Crimpronic complete with 11 mm crimp head &amp; positioning module for vials with 12 mm diameter</p>		<p><b>GWCR-4C20</b> Crimpronic complete with 20 mm crimp head &amp; positioning module for vials with 23 mm diameter</p>
<p>Accessory, may be ordered separately:</p>			
	<p><b>GACR-4C11</b> Crimpronic Crimp head 11 mm</p>		<p><b>GACR-4C20</b> Crimpronic Crimp head 20 mm</p>
<p>no image</p>	<p><b>GACR-4D11</b> Crimpronic De-capper 11 mm</p>		<p><b>GACR-4D20</b> Crimpronic De-Capper 20 mm</p>
	<p><b>GACR-4P11</b> Crimpronic Positioning module for vial ø 12 mm</p>		<p><b>GACR-4P23</b> Crimpronic Positioning module for vial ø 23 mm</p>



# Manual crimping & de-capping tools & vial racks



## Manual crimping & de-capping tools

	8 mm Crimper <b>G002(8)-CZ</b>	11 mm Crimper <b>G002-CZ</b>	13 mm Crimper <b>G002(13)-CZ</b>	20 mm Crimper <b>G006-CZ</b>
	8 mm Crimper <b>8002(8)-CZ</b>	11 mm Crimper <b>8002-CZ</b>	13 mm Crimper <b>8002(13)-CZ</b>	20 mm Crimper <b>8006-CZ</b>
	8 mm De-capper <b>G002(8)-DCZ</b>	11 mm De-capper <b>G002-DCZ</b>	13 mm De-capper <b>G002(13)-DCZ</b>	20 mm De-capper <b>G006-DCZ</b>
	8 mm De-capper <b>8002(8)-DCZ</b>	11 mm De-capper <b>8002-DCZ</b>	13 mm De-capper <b>8002(13)-DCZ</b>	20 mm De-capper <b>8006-DCZ</b>

## Manual De-capper

	8 mm De-capper <b>8002(8)-OZ</b>	11 mm De-capper <b>8002-OZ</b>	13 mm De-capper <b>8002(13)-OZ</b>	20 mm De-capper <b>8006-OZ</b>
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## Stainless steel crimper for small series suitable for the clean room

Manual crimper, height adjustable, suitable for the clean room, may be sterilised and autoclaved

	8 mm Crimper <b>8002(8)-CZRR</b>	11 mm Crimper <b>8002-CZRR</b>	13 mm Crimper <b>8002(13)-CZRR</b>	20 mm Crimper <b>8006-CZRR</b>
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## Hard-polyethylene vial racks

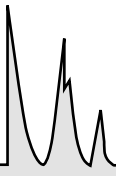
When placing an order for vial racks, please quote the vial diameter you are using.

The following maximum number of positions is possible with a vial diameter of:



vial ø	PEWP conforms to well plate	PE32 248 x 114 x 30 mm	PE10 165 x 60 x 30 mm
up to 16 mm	6 x 4 Positions	max. 13 x 6 Positions	max. 8 x 3 Positions
up to 22 mm	-	max. 10 x 4 Positions	max. 6 x 2 Positions
up to 34 mm	-	max. 6 x 3 Positions	max. 4 x 1 Positions

vial ø	rack positions	rack size	product no.
10 mm	24 Positions	PEWP: 184 x 84 x 30 mm	<b>8230-PEWP-24/10</b>
12 mm	10 Positions	PE10: 165 x 60 x 30 mm	<b>8230-PE10-10/12</b>
12 mm	32 Positions	PE32: 248 x 114 x 30 mm	<b>8230-PE32-32/12</b>
15 mm	32 Positions	PE32: 248 x 114 x 30 mm	<b>8230-PE32-32/15</b>
19 mm	32 Positions	PE32: 248 x 114 x 30 mm	<b>8230-PE32-32/19</b>
23 mm	18 Positions	PE32: 248 x 114 x 30 mm	<b>8230-PE32-18/23</b>
27 mm	18 Positions	PE32: 248 x 114 x 30 mm	<b>8230-PE32-18/27</b>



## Headspace crimp vials & caps



<b>G006-10-H/FL</b> <b>G006-10-D/FL</b> 10 ml Headspace crimp vial, flat base, clear or amber borosilicate glass, size: 23 x 45 mm	<b>G006-10-H/Ru</b> 10 ml Headspace crimp vial, rounded base, clear borosilicate glass, size: 23 x 45 mm	<b>G006-20-H/FL</b> <b>G006-20-D/FL</b> 20 ml Headspace crimp vial, flat base, clear or amber borosilicate glass, size: 23 x 75 mm	<b>G006-20-H/Ru</b> <b>G006-20-D/Ru</b> 20 ml Headspace crimp vial, rounded base, clear or amber borosilicate glass, size: 23 x 75 mm
<b>Instrument compatibility:</b> Agilent Technologies, CTC/Leap, Dani, Fisons HS500, Shimadzu AOC5000		<b>Instrument compatibility:</b> Agilent Technologies, CTC/Leap, Dani, Dani Purge & Trap, Fisons HS850, PerkinElmer (with rounded bottom only), Shimadzu AOC5000	

## Magnetic cap for CTC/Leap



septum type	septum material	thickness	septum colour	cap colour	product no.
ms-Pure silicone septum	silicone/PTFE	3 mm	clear/clear	clear blue green red	G007-MACC-SKFK30 G007-MACB-SKFK30 G007-MACG-SKFK30 G007-MACR-SKFK30

## Aluminium cap

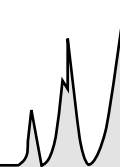


septum type	septum material	thickness	septum colour	cap colour	product no.
ms-Pure silicone septum	silicone/PTFE	3 mm	clear/clear	clear	G007-ACC-SKFK30

### Glass:

<b>H</b>	clear glass
<b>D</b>	amber glass

# Headspace vials & caps



## Headspace screw vial with magnetic screw cap

Headspace chromatography requires the vial to be tightly sealed and the closure to withstand pressure. This requires some effort and is tiring when closing larger series. Our screw-top headspace vial only requires a torque < 1 Nm for a pressure tight seal while common solutions require a torque > 8 Nm.

Our screw caps not only close smoothly, they also have a smaller diameter than aluminium crimp caps for Headspace. Because of the smaller diameter the septum, which is the cost defining factor, is therefore less expensive.



Design Registration No.: DE 20 2007 008 595.8;  
Priority Date: 15. June 2007

GHS6 *		**R		S * F ***		*	
cap colour		vial volume		septum		borosilicate glass	
	B = blue	10 ml	= 10R		3 mm grey butyl rubber / grey PTFE septum, max. temp 125 °C <b>Vial kit code = BZFZ31</b> <b>Product code septum = GHS8-BZ30FZ01/14</b>		H = clear glass
	G = green	23 x 43 mm			3 mm blue silicone / grey PTFE septum, max. temp 150 °C <b>Vial kit code = SBFZ31</b> <b>Product code septum = GHS8-SB30FZ01/14</b>		D = amber glass
	R = red	20 ml	= 20R		3 mm clear silicone / white PTFE septum, max. temp 150 °C <b>Vial kit code = SKFW32</b> <b>Product code septum = GHS8-SK30FW02/14</b>		
	S = black	23 x 73 mm			1.5 mm white silicone / red PTFE septum, max. temp 120 °C <b>Vial kit code = SWFR16</b> <b>Product code septum = GHS8-SW15FR01/14</b>		
	W = white				3 mm white silicone / red PTFE septum, max. temp 150 °C <b>Vial kit code = SWFR31</b> <b>Product code septum = GHS8-SW30FR01/14</b>		
	Y = yellow						

	B = blue
	G = green
	R = red
	S = black
	W = white
	Y = yellow

10 ml	= 10R
23 x 43 mm	
20 ml	= 20R
23 x 73 mm	

	3 mm grey butyl rubber / grey PTFE septum, max. temp 125 °C <b>Vial kit code = BZFZ31</b> <b>Product code septum = GHS8-BZ30FZ01/14</b>
	3 mm blue silicone / grey PTFE septum, max. temp 150 °C <b>Vial kit code = SBFZ31</b> <b>Product code septum = GHS8-SB30FZ01/14</b>
	3 mm clear silicone / white PTFE septum, max. temp 150 °C <b>Vial kit code = SKFW32</b> <b>Product code septum = GHS8-SK30FW02/14</b>
	1.5 mm white silicone / red PTFE septum, max. temp 120 °C <b>Vial kit code = SWFR16</b> <b>Product code septum = GHS8-SW15FR01/14</b>
	3 mm white silicone / red PTFE septum, max. temp 150 °C <b>Vial kit code = SWFR31</b> <b>Product code septum = GHS8-SW30FR01/14</b>

H = clear glass
D = amber glass



magnetic screw caps, may be used up to 150°C



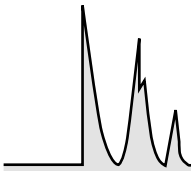
also available graduated GHS6\*-20R-S\*F\*\*\*-H/G



<b>10 ml</b> <b>23 x 43 mm</b>
GHS6*-10R-BZFZ31-H GHS6*-10R-BZFZ31-D
GHS6*-10R-SBFZ31-H GHS6*-10R-SBFZ31-D
GHS6*-10R-SKFW32-H GHS6*-10R-SKFW32-D
GHS6*-10R-SWFR31-H GHS6*-10R-SWFR31-D
GHS6*-10R-SWFR16-H GHS6*-10R-SWFR16-D







<b>20 ml</b> <b>23 x 73 mm</b>
GHS6*-20R-BZFZ31-H GHS6*-20R-BZFZ31-D
GHS6*-20R-SBFZ31-H GHS6*-20R-SBFZ31-D
GHS6*-20R-SKFW32-H GHS6*-20R-SKFW32-D
GHS6*-20R-SWFR31-H GHS6*-20R-SWFR31-D
GHS6*-20R-SWFR16-H GHS6*-20R-SWFR16-D



## Septum Vials from 1.0 - 60 ml complete with open-top screw cap with silicone/PTFE septum

Our Septum Vial programme comprises 6 vial diameters and over 30 different dimensions within the volumes of 1.0 - 60 ml. The vials come complete with open-top screw cap with silicone/PTFE septum; the caps are available in six different colours.

Septum Vials are supplied in high quality card board boxes with a grit divider for 100 vials. These boxes are also ideally suited for the storing or transportation of the vials.

				
	<b>vial ø 12 mm screw thread 9-425</b>	<b>vial ø 14 mm screw thread 13-425</b>	<b>vial ø 17 mm screw thread 15-425</b>	<b>vial ø 19 mm screw thread 15-425</b>
<b>Kit</b>	height: 24 mm height: 32 mm Vµ-vial height: 32 mm assorted  G194X-12Kit02-SKFK10-H G194X-12Kit02-SKFK10-D	height: 26 mm height: 30 mm height: 45 mm height: 50 mm assorted  G074X-14Kit05-SKFW16-H G074X-14Kit05-SKFW16-D	height: 27 mm height: 35 mm height: 42 mm height: 60 mm height: 72 mm, assorted  G074X-17Kit10-SKFW16-H G074X-17Kit10-SKFW16-D	height: 37 mm height: 50 mm height: 65 mm height: 87 mm assorted  G074X-19Kit15-SKFW16-H G074X-19Kit15-SKFW16-D
<b>1.0 ml</b>	height: 24 mm G194*-12/024-SKFK10-H G194*-12/024-SKFK10-D	height: 19 mm G074*-14/019-SKFW16-H G074*-14/019-SKFW16-D		
<b>1.2 ml</b>	height: 32 mm G194*-12/032-SKFK10-H/V15µ G194*-12/032-SKFK10-D/V15µ			
<b>1.5 ml</b>	height: 32 mm G194*-12/032-SKFK10-H G194*-12/032-SKFK10-D	height: 22 mm G074*-14/022-SKFW16-H G074*-14/022-SKFW16-D		
<b>2 ml</b>		height: 26 mm G074*-14/026-SKFW16-H G074*-14/026-SKFW16-D		
<b>2.5 ml</b>		height: 30 mm G074*-14/030-SKFW16-H G074*-14/030-SKFW16-D	height: 27 mm G074*-17/027-SKFW16-H G074*-17/027-SKFW16-D	
<b>3.75 ml</b>		height: 45 mm G074*-14/045-SKFW16-H G074*-14/045-SKFW16-D	height: 35 mm G074*-17/035-SKFW16-H G074*-17/035-SKFW16-D	
<b>5 ml</b>		height: 50 mm G074*-14/050-SKFW16-H G074*-14/050-SKFW16-D	height: 42 mm G074*-17/042-SKFW16-H G074*-17/042-SKFW16-D	height: 37 mm G074*-19/037-SKFW16-H G074*-19/037-SKFW16-D

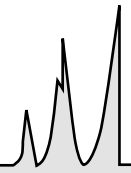
replace «\*» with the **cap colour** of your choice:

					
B = blue	G = green	R = red	S = black	W = white	Y = yellow

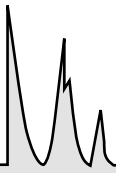
**Glass:**

<b>H</b>	clear glass
<b>D</b>	amber glass

# Septum Vials



	<b>vial ø 17 mm</b> <b>screw thread 15-425</b>	<b>vial ø 19 mm</b> <b>screw thread 15-425</b>	<b>vial ø 23 mm</b> <b>screw thread 20-400</b>	<b>vial ø 27 mm</b> <b>screw thread 24-400</b>
Kit	<b>height: 27 mm</b> <b>height: 35 mm</b> <b>height: 42 mm</b> <b>height: 60 mm</b> <b>height: 72 mm, assorted</b> G074X-17Kit10-SKFW16-H G074X-17Kit10-SKFW16-D	<b>height: 37 mm</b> <b>height: 50 mm</b> <b>height: 65 mm</b> <b>height: 87 mm</b> <b>assorted</b> G074X-19Kit15-SKFW16-H G074X-19Kit15-SKFW16-D	<b>height: 37 mm</b> <b>height: 45 mm</b> <b>height: 60 mm</b> <b>height: 75 mm</b> <b>height: 85 mm, assorted</b> G074X-23Kit25-SKFW16-H G074X-23Kit25-SKFW16-D	<b>height: 37 mm</b> <b>height: 47 mm</b> <b>height: 57 mm</b> <b>height: 68 mm</b> <b>assorted</b> G074X-27Kit25-SKFW34-H G074X-27Kit25-SKFW34-D <b>height: 78 mm, height: 95 mm</b> <b>height: 118 mm,</b> <b>height: 140 mm, assortiert</b> G074X-27Kit60-SKFW34-H G074X-27Kit60-SKFW34-D
7.5 ml	<b>height: 60 mm</b> G074*-17/060-SKFW16-H G074*-17/060-SKFW16-D	<b>height: 50 mm</b> G074*-19/050-SKFW16-H G074*-19/050-SKFW16-D	<b>height: 37 mm</b> G074*-23/037-SKFW16-H G074*-23/037-SKFW16-D	
10 ml	<b>height: 72 mm</b> G074*-17/072-SKFW16-H G074*-17/072-SKFW16-D	<b>height: 65 mm</b> G074*-19/065-SKFW16-H G074*-19/065-SKFW16-D	<b>height: 45 mm</b> G074*-23/045-SKFW16-H G074*-23/045-SKFW16-D	<b>height: 37 mm</b> G074*-27/037-SKFW34-H G074*-27/037-SKFW34-D
15 ml		<b>height: 87 mm</b> G074*-19/087-SKFW16-H G074*-19/087-SKFW16-D	<b>height: 60 mm</b> G074*-23/060-SKFW16-H G074*-23/060-SKFW16-D	<b>height: 47 mm</b> G074*-27/047-SKFW34-H G074*-27/047-SKFW34-D
20 ml			<b>height: 75 mm</b> G074*-23/075-SKFW16-H G074*-23/075-SKFW16-D	<b>height: 57 mm</b> G074*-27/057-SKFW34-H G074*-27/057-SKFW34-D
25 ml			<b>height: 85 mm</b> G074*-23/085-SKFW16-H G074*-23/085-SKFW16-D	<b>height: 68 mm</b> G074*-27/068-SKFW34-H G074*-27/068-SKFW34-D
30 ml				<b>height: 78 mm</b> G074*-27/078-SKFW34-H G074*-27/078-SKFW34-D
40 ml				<b>height: 95 mm</b> G074*-27/095-SKFW34-H G074*-27/095-SKFW34-D
50 ml				<b>height: 118 mm</b> G074*-27/118-SKFW34-H G074*-27/118-SKFW34-D
60 ml				<b>height: 140 mm</b> G074*-27/140-SKFW34-H G074*-27/140-SKFW34-D G054*27/140-SKFW34-H <i>vial with round base</i>



## Septum Vials with open-top screw cap and silicone/PTFE septum

### 1.0 ml - 2 ml Septum Vials: $\varnothing$ 12 mm, screw thread 9-425



Screw cap (screw tread 9-425) assembled with 1 mm thick ms-Pure septum, clear silicone / clear PTFE



1.0 ml 12 x 24 mm	1.2 ml V $\mu$ -Vial 12 x 32 mm	1.5 ml 12 x 32 mm
G194*-12/024-SKFK10-H G194*-12/024-SKFK10-D	G194*-12/032-SKFK10-H/V15 $\mu$ G194*-12/032-SKFK10-D/V15 $\mu$	G194*-12/032-SKFK10-H G194*-12/032-SKFK10-D

### 1.0 ml - 5 ml Septum Vials: $\varnothing$ 14 mm, screw thread 13-425



Screw cap (screw thread 13-425) assembled with 1.6 mm thick septum, clear silicone / white PTFE



1.5 ml 14 x 22 mm	2 ml 14 x 26 mm	2.5 ml 14 x 30 mm	3.75 ml 14 x 45 mm	5 ml 14 x 50 mm
G074*-14/022-SKFW16-H G074*-14/022-SKFW16-D	G074*-14/026-SKFW16-H G074*-14/026-SKFW16-D	G074*-14/030-SKFW16-H G074*-14/030-SKFW16-D	G074*-14/045-SKFW16-H G074*-14/045-SKFW16-D	G074*-14/050-SKFW16-H G074*-14/050-SKFW16-D

1.0 ml vial not shown: clear glass: G074\*-14/019-SKFW16-H, amber glass: G074\*-14/019-SKFW16-D (as long as stock lasts)

replace «\*» with the **cap colour** of your choice:

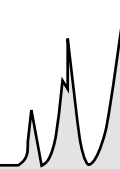
B = blue	G = green	R = red	S = black	W = white	Y = yellow

**Glass:**


<b>H</b>	clear glass
<b>D</b>	amber glass



# Septum Vials




## 2.5 ml - 10 ml Septum Vials: ø 17 mm, screw thread 15-425

 Screw cap (screw tread 15-425) assembled with 1.6 mm thick septum, clear silicone / white PTFE



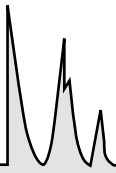
2.5 ml 17 x 27 mm	3.75 ml 17 x 35 mm	5 ml 17 x 42 mm	7.5 ml 17 x 60 mm	10 ml 17 x 72 mm
G074*-17/027-SKFW16-H G074*-17/027-SKFW16-D	G074*-17/035-SKFW16-H G074*-17/035-SKFW16-D	G074*-17/042-SKFW16-H G074*-17/042-SKFW16-D	G074*-17/060-SKFW16-H G074*-17/060-SKFW16-D	G074*-17/072-SKFW16-H G074*-17/072-SKFW16-D

## 5 ml - 15 ml Septum Vials: ø 19 mm, screw thread 15-425

 Screw cap (screw tread 15-425) assembled with 1.6 mm thick septum, clear silicone / white PTFE

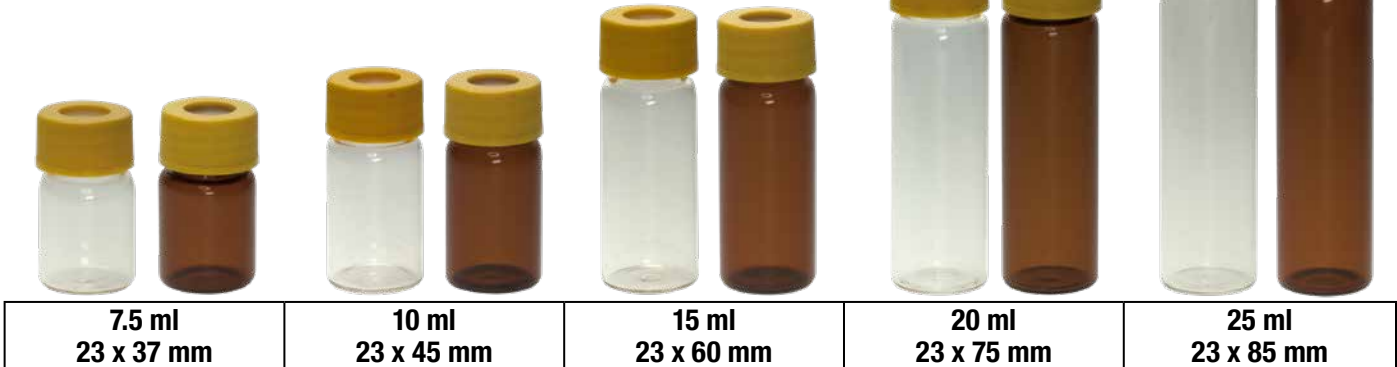
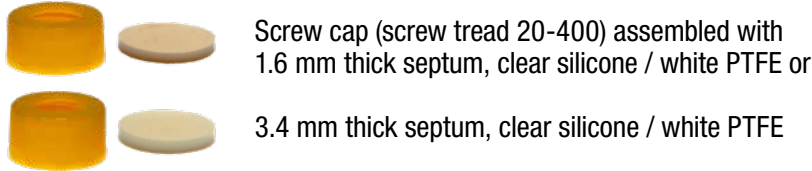


5 ml 19 x 37 mm	7.5 ml 19 x 50 mm	10 ml 19 x 65 mm	15 ml 19 x 87 mm
G074*-19/037-SKFW16-H G074*-19/037-SKFW16-D	G074*-19/050-SKFW16-H G074*-19/050-SKFW16-D	G074*-19/065-SKFW16-H G074*-19/065-SKFW16-D	G074*-19/087-SKFW16-H G074*-19/087-SKFW16-D



## Septum Vials with open-top screw cap and silicone/PTFE septum

7.5 ml - 25 ml Septum Vials:  $\varnothing$  23 mm, screw thread 20-400



with 1.6 mm thick clear silicone/white PTFE septum

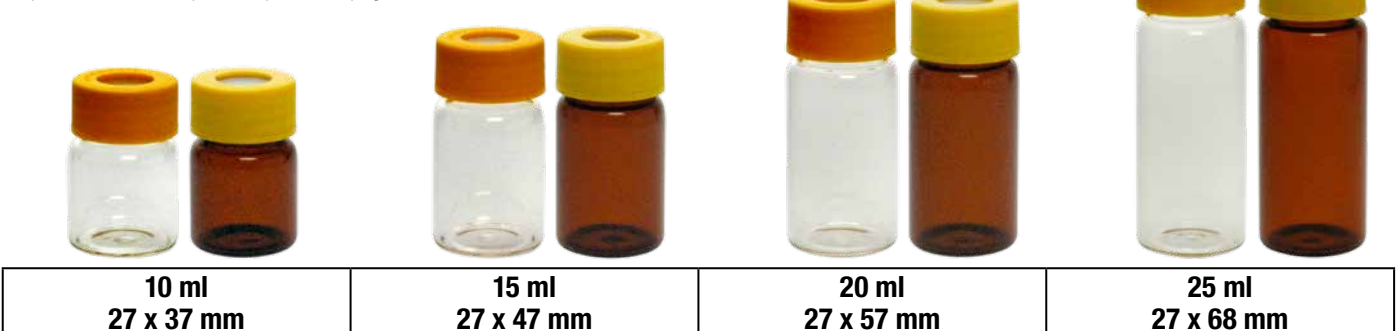
G074*-23/037-SKFW16-H	G074*-23/045-SKFW16-H	G074*-23/060-SKFW16-H	G074*-23/075-SKFW16-H	G074*-23/085-SKFW16-H
G074*-23/037-SKFW16-D	G074*-23/045-SKFW16-D	G074*-23/060-SKFW16-D	G074*-23/075-SKFW16-D	G074*-23/085-SKFW16-D

with 3.4 mm thick clear silicone/white PTFE septum

G074*-23/037-SKFW34-H	G074*-23/045-SKFW34-H	G074*-23/060-SKFW34-H	G074*-23/075-SKFW34-H	G074*-23/085-SKFW34-H
G074*-23/037-SKFW34-D	G074*-23/045-SKFW34-D	G074*-23/060-SKFW34-D	G074*-23/075-SKFW34-D	G074*-23/085-SKFW34-D

10 ml - 25 ml Septum Vials:  $\varnothing$  27 mm, screw thread 24-400

for picture of screw cap and septum see page 45



with 1.6 mm thick clear silicone/white PTFE septum

G074*-27/037-SKFW16-H	G074*-27/047-SKFW16-H	G074*-27/057-SKFW16-H	G074*-27/068-SKFW16-H
G074*-27/037-SKFW16-D	G074*-27/047-SKFW16-D	G074*-27/057-SKFW16-D	G074*-27/068-SKFW16-D

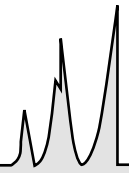
with 1.6 mm thick pre-slit septum, clear silicone / white PTFE

G074*-27/037-SKFW16/HiX-H	G074*-27/047-SKFW16/HiX-H	G074*-27/057-SKFW16/HiX-H	G074*-27/068-SKFW16/HiX-H
G074*-27/037-SKFW16/HiX-D	G074*-27/047-SKFW16/HiX-D	G074*-27/057-SKFW16/HiX-D	G074*-27/068-SKFW16/HiX-D

with 3.4 mm thick clear silicone/white PTFE septum

G074*-27/037-SKFW34-H	G074*-27/047-SKFW34-H	G074*-27/057-SKFW34-H	G074*-27/068-SKFW34-H
G074*-27/037-SKFW34-D	G074*-27/047-SKFW34-D	G074*-27/057-SKFW34-D	G074*-27/068-SKFW34-D

# Septum Vials



## 30 ml - 60 ml Septum Vials: $\varnothing$ 27 mm, screw thread 24-400

for picture of screw cap and septum, see below



<b>30 ml</b> 27 x 78 mm	<b>40 ml</b> 27 x 95 mm	<b>50 ml</b> 27 x 118 mm	<b>60 ml</b> 27 x 140 mm
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### with 1.6 mm thick clear silicone/white PTFE septum

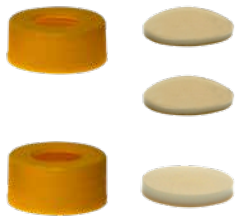
G074*-27/078-SKFW16-H G074*-27/078-SKFW16-D	G074*-27/095-SKFW16-H G074*-27/095-SKFW16-D	G074*-27/118-SKFW16-H G074*-27/118-SKFW16-D	G074*-27/140-SKFW16-H G074*-27/140-SKFW16-D
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### with 1.6 mm thick pre-slit septum, clear silicone / white PTFE

G074*-27/078-SKFW16/HiX-H G074*-27/078-SKFW16/HiX-D	G074*-27/095-SKFW16/HiX-H G074*-27/095-SKFW16/HiX-D	G074*-27/118-SKFW16/HiX-H G074*-27/118-SKFW16/HiX-D	G074*-27/140-SKFW16/HiX-H G074*-27/140-SKFW16/HiX-D
--	--	--	--

### with 3.4 mm thick clear silicone/white PTFE septum

G074*-27/078-SKFW34-H G074*-27/078-SKFW34-D	G074*-27/095-SKFW34-H G074*-27/095-SKFW34-D	G074*-27/118-SKFW34-H G074*-27/118-SKFW34-D	G074*-27/140-SKFW34-H G074*-27/140-SKFW34-D
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Screw cap (screw thread 24-400) assembled with  
1.6 mm thick septum, clear silicone / white PTFE or

1.6 mm thick pre-slit septum, clear silicone / white PTFE or

Screw cap (screw thread 24-400) assembled with  
3.4 mm thick septum, clear silicone / white PTFE

replace «\*» with the **cap colour** of your choice:




					
B = blue	G = green	R = red	S = black	W = white	Y = yellow

### Glass:

<b>H</b>	clear glass
<b>D</b>	amber glass


## Open-top screw caps with silicone/PTFE septum

**Polyamide screw caps for Septum Vials with 9 mm «HP» screw thread  
for Septum Vials with 12 mm  $\varnothing$ , 1.0 ml - 2 ml volume**


	<b>screw cap with septum</b>	<b>screw cap only</b>	<b>septum only</b>
screw thread 9-425 	9 mm open-top screw cap from <b>glass-fibre enforced polyamide</b> with <b>ribbed</b> cap collar, with 1 mm thick ms-Pure septum, clear silicone/clear PTFE <b>G294*-SKFK10/09</b>	9 mm open-top screw cap from <b>glass-fibre enforced polyamide</b> with <b>ribbed</b> cap collar <b>G294-C*/09</b>	1 mm thick ms-Pure septum from non-pigmented clear silicone / clear PTFE  <b>G004-HP-SKFK10</b>
screw thread 9-425 	9 mm open-top screw cap from <b>polyamide</b> with <b>ribbed</b> cap collar, with 1 mm thick ms-Pure septum, clear silicone/clear PTFE <b>G194*-SKFK10/09</b>	9 mm open-top screw cap from <b>polyamide</b> with <b>ribbed</b> cap collar <b>G194-C*/09</b>	
screw thread 9-425 	as above but with <b>smooth</b> cap collar <b>G094*-SKFK10/09</b>	as above but with <b>smooth</b> cap collar <b>G094-C*/09</b>	

## Polypropylene screw caps



**for Septum Vials with 14 mm  $\varnothing$ , 1.0 ml - 5 ml volume**

screw thread 13-425 	13 mm open-top screw cap with ribbed cap collar, with 1.6 mm thick septum from clear silicone / white PTFE <b>G074*-SKFW16/13</b>	13 mm open-top screw cap with ribbed cap collar <b>G074-C*/13</b>	1.6 mm thick septum from clear silicone / white PTFE  <b>G074-SK16FW02/13</b>
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**for Septum Vials with 17 mm  $\varnothing$  & 19 mm  $\varnothing$ , 2.5 ml - 15 ml volume**

screw thread 15-425 	15 mm open-top screw cap with ribbed cap collar, with 1.6 mm thick septum from clear silicone / white PTFE <b>G074*-SKFW16/15</b>	15 mm open-top screw cap with ribbed cap collar <b>G074-C*/15</b>	1.6 mm thick septum from clear silicone / white PTFE  <b>G074-SK16FW02/15</b>
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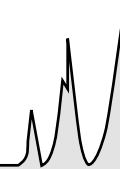
**for Septum Vials with 23 mm  $\varnothing$ , 7.5 ml - 25 ml volume**

screw thread 20-400 	20 mm open-top screw cap with ribbed cap collar, with 1.6 mm thick septum from clear silicone / white PTFE <b>G074*-SKFW16/20</b>	20 mm open-top screw cap with 12 mm $\varnothing$ opening, <b>10 mm collar height</b> <b>G074-C10*12/20</b>	1.6 mm thick septum from clear silicone / white PTFE  <b>G074-SK16FW02/20</b>
screw thread 20-400 	20 mm open-top screw cap with ribbed cap collar, with 3.2 mm thick septum from clear silicone / white PTFE <b>G074*-SKFW34/20</b>	20 mm open-top screw cap with 12 mm $\varnothing$ opening, <b>13 mm collar height</b> <b>G074-C13*12/20</b>	3.2 mm thick septum from clear silicone / white PTFE  <b>G074-SK32FW02/20</b>

replace «\*» with the **cap colour** of your choice:


					
B = blue	G = green	R = red	S = black	W = white	Y = yellow

# Septum Vials




## Open-top screw caps with silicone/PTFE septum for Septum Vials with 27 mm ø, 10 ml - 60 ml volume


### Screw cap 24-400 with 1.6 mm thick septum

	crew cap with septum	screw cap only	septum only
screw thread 24-400 	24 mm open-top screw cap with 11 mm cap collar and 14 mm ø opening, with 1.6 mm thick septum from clear silicone / white PTFE  G074*-SKFW16/24	24 mm screw cap with 14 mm ø opening, 11 mm collar height  G074-C11*14/24	1.6 mm thick septum from clear silicone / white PTFE  G074-SK14FW02/24


### Screw cap 24-400 with 1.6 mm thick cross-slit septum

screw thread 24-400 	24 mm open-top screw cap with 11 mm cap collar and 14 mm ø opening, with 1.6 mm thick cross-slit septum from clear silicone / white PTFE  G074*-SKFW16/HiX-24	24 mm screw cap with 14 mm ø opening, 11 mm collar height  G074-C11*14/24	1.6 mm thick cross-slit septum from clear silicone / white PTFE  G074-SK14FW02/HiX-24
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### Screw cap 24-400 with 3.1 mm thick septum

screw thread 24-400 	24 mm open-top screw cap with 13 mm cap collar and 14 mm ø opening, with 3.1 mm thick septum from white silicone / red PTFE  G074*-SWFR31/24	24 mm screw cap with 14 mm ø opening, 13 mm collar height  G074-C13*14/24	3.1 mm thick septum from white silicone / red PTFE  G074-SW30FR01/24
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### Screw cap 24-400 with 3.4 mm thick septum

screw thread 24-400 	24 mm open-top screw cap with 13 mm cap collar and 14 mm ø opening, with 3.4 mm thick septum from clear silicone/ white PTFE  G074*-SKFW34/24	24 mm screw cap with 14 mm ø opening, 13 mm collar height  G074-C13*14/24	3.4 mm thick septum from clear silicone / white PTFE  G074-SK32FW02/24
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[www.chemoline.ch](http://www.chemoline.ch)

### Protective glasses

(Product number: CLARELLO, colourless: 49-0130)

protects your eyes  
clear spectacle lens  
various models available



[www.chemoline.ch](http://www.chemoline.ch)

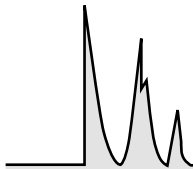
### Disposable Gloves

(Product number: size L: 50-5107)

from latex or nitrile  
sizes S - XL  
box of 100 pcs







## Special vials: culture tubes, flat bottom cuvette, weighing vial

### Culture tubes

### Flat bottom cuvette



<b>2.5 ml</b> <b>12 x 43 mm</b>	<b>12 ml</b> <b>16 x 100 mm</b>	<b>220 ml</b> <b>60 x 135 mm</b>	<b>10 ml</b> <b>13 x 84 mm</b>
Culture tube, clear glass	<i>Wall thickness 1 mm</i> Culture tube, clear glass	Culture tube, clear glass	Flat bottom cuvette, clear glass
<b>G052-12/043-H</b>	<b>8052-16/100-H/W10</b>	<b>8052-60/135-H</b>	<b>G052-13/084-H</b>

### “Lightweight” weighing vial for using with analytical balances

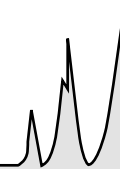
**G072-14/045-H/W08**  
**G072-14/045-D/W08**

“Lightweight” weighing vial,  
screw-top, 4 ml volume,  
weight < 4.8 g,  
wall thickness 0.8 mm,  
especially suited for using with  
analytical balances,  
clear or amber glass,  
size: 14 x 45 mm



Analytical Balance XPE205 from Mettler-Toledo  
© by Mettler-Toledo Inc.

# Special vials



## Special vials: culture tubes, screw vial & cap with cone seal

### Culture tubes



3.5 ml 14 x 45 mm	8.5 ml 16 x 75 mm	15 ml 16 x 100 mm	60 ml 27 x 140 mm
screw thread 13-425 screw vial with round base, clear glass	wall thickness 1.2 mm screw thread 13-425 or 15-425 screw vial with round base, clear glass	wall thickness 1.2 mm screw thread 15-425 screw vial with round base, clear glass	screw thread 24-400 screw vial with round base, clear glass
<b>G052-14/045-H</b>	thread 13-425: <b>G052-16/075-H/W12/C13</b> thread 15-425: <b>G052-16/075-H/W12</b>	<b>G052-16/100-H/W12</b>	<b>G052-27/140-H</b>

### with closed-top PTFE lined screw cap

<b>G055*-14/045-H</b>	<b>G055*-16/075-H/W12</b>	<b>G055*-16/100-H/W12</b>	<b>G055*-27/140-H</b>
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### with open-top screw cap and septum

1.6 mm thick septum clear silicone/clear PTFE	1.6 mm thick septum clear silicone/white PTFE	1.6 mm thick septum clear silicone/white PTFE	3.4 mm thick septum clear silicone/white PTFE
<b>G054*-14/045-SKFK16-H</b>	<b>G054*-16/075-SKFW16-H/W12</b>	<b>G054*-16/100-SKFW16-H/W12</b>	<b>G054*-27/140-SKFW34-H</b>

### Screw vial & cap with cone seal



#### **G060S-29/041-H**

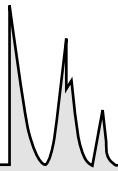
15 ml screw vial, clear glass, dimension 29 x 41 mm,  
with black polypropylene screw cap with sealing cone

replace «\*» with the **cap colour** of your choice:

B = blue	G = green	R = red	S = black	W = white	Y = yellow

#### **Glass:**

<b>H</b>	clear glass
<b>D</b>	amber glass



# Barcoded Vials & V $\mu$ -Vials consecutively numbered from 1 to 100

## Barcoded Vials

Barcode labelling facilitates sample handling. The information about the sample contained in the barcode can be quickly identified and automatically recorded.

A barcode digitalises information (yes/no) and depicts it with the aid of dark bars in varying width and light spaces (gaps). Depending on the barcode the gaps or the ratio between bar/gap contain information as well. The ratio between narrow and wide bars is standardised and usually lies between 1 : 2.5 - 1 : 3.5.

Before and after the code is a free space called the quiet zone, which is required for a correct decoding of the barcode.

Before and after the quiet zone are start and stop signs which indicate the scan direction.

A barcode can store multiple information on a relatively narrow space such as sample compounds, information about the synthesis, toxicity, storage conditions and more.

In order for the scanner to read the barcode correctly it may not be smudged. Therefore a solvent resistant label is recommended which for additional protection can be laminated.



## Barcode Labels

- ☛ Barcode labels can be designed to customer specification. It is for example possible to include the company logo on the label.
- ☛ Labels are available for vials starting from 2 ml volume.
- ☛ We supply the label applied to the vial or the label only.

## Barcode Laser Printing

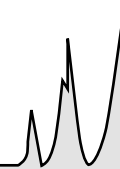
- ☛ The barcode is applied to the vial with a laser printer.
- ☛ Barcode and 2D Matrix Code are possible.



## V $\mu$ -Vial consecutively numbered from 1 to 100

Agilent compatible V $\mu$ -Vial, amber borosilicate glass, size 12 x 32 mm;  
1.2 ml total volume and small residual volume, consecutively numbered from 1 - 100

# Pre-cleaned Vials and Bottles for TOC & VOC



## TOC & VOC certified Vials and Bottles

Process	Typical Application	Description
TOC	Validation of water systems and cleaning validations, TOC trace analysis	Total organic carbon (TOC) is a measure of the amount of carbon covalently bound in organic molecules in a water sample.
VOC	Trace analysis of volatile organic compounds (VOC)	Cleaning following EPA Protocol „B“

## TOC certified Vials

TOC Vials, borosilicate glass, complete with open-top screw cap and 1.5 mm thick silicone/PTFE septum. Screw cap and septum welded.

### 40 ml screw vial pre-cleaned for TOC < 10 ppb

with certificate of compliance and batch number, certified by independent laboratory

volume	glass	dimension	TOC (ppb)	product no.
40 ml	clear	27 x 95 mm	< 10	8S74-40-H/TOC10-15
40 ml	amber	27 x 95 mm	< 10	8S74-40-D/TOC10-15

for 20 ml volume please inquire

### 60 ml screw vial pre-cleaned for TOC < 10 ppb

with certificate of compliance and batch number, certified by independent laboratory

volume	glass	dimension	TOC (ppb)	product no.
60 ml	clear	27 x 140 mm	< 10	8S74-60-H/TOC10-15



## PrePreserved® vials for VOC analysis (Method 5053)

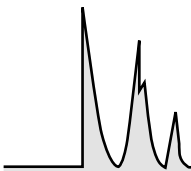
### 40 ml screw vial with hydrochloride acid

40 ml vial, borosilicate glass, complete with open-top screw cap and 3.2 mm thick clear silicone/PTFE septum

pre-cleaned according to procedure P2 as described on page 52 with certificate of compliance, filled with 0.5 ml hydrochloride acid

volume	glass	dimension	filled with	product no.
40 ml	clear	27 x 95 mm	hydrochloride acid 0.5 ml	8S74-40-H/HCL
40 ml	amber	27 x 95 mm	hydrochloride acid 0.5 ml	8S74-40-D/HCL





## Pre-cleaned vials and bottles with certificate of compliance

### for pesticide analysis (P1)

container preparation includes

1. non-phosphate detergent washing
2. multiple tap water washing
3. ASTM Type I deionized water rinses
4. 1:1 HNO<sub>3</sub> (nitric acid) & solvent rinses
5. oven drying
6. clean-room assembly of vial, cap and septum

### for VOC analysis (P2)

container preparation includes

1. non-phosphate detergent washing
2. multiple tap water washing
3. ASTM Type I deionized water rinses
4. oven drying
5. clean-room assembly of vial, cap and septum

### for metal, cyanide, sulfide and fluoride analysis (P3)

container preparation includes




1. non-phosphate detergent washing
2. multiple tap water washing
3. ASTM Type I deionized water rinses
4. 1:1 HNO<sub>3</sub> (nitric acid) rinses
5. oven drying
6. clean-room assembly of vial, cap and septum

### for nitrate/nitrite analysis (P4)

container preparation includes

1. non-phosphate detergent washing
2. multiple tap water washing
3. ASTM Type I deionized water rinses
4. 1:1 H<sub>2</sub>SO<sub>4</sub> (sulphuric acid) rinses
5. oven drying
6. clean-room assembly of vial, cap and septum

## Pre-cleaned bottles with PTFE lined closed-top screw cap

	<p><b>8S75-WM-125-H/P*</b> <b>8S75-WM-125-D/P*</b></p>	<p>125 ml straight sided screw bottle, clear or amber glass, dimension 60 x 68 mm, with PTFE lined closed-top screw cap (screw thread 58-400)</p>
	<p><b>8S75-WM-250-H/P*</b> <b>8S75-WM-250-D/P*</b></p>	<p>250 ml straight sided screw bottle, clear or amber glass, dimension 72 x 89 mm, with PTFE lined closed-top screw cap (screw thread 70-400)</p>
	<p><b>8S75-WM-950-D/P*</b></p>	<p>950 ml wide-mouth screw bottle, amber glass, dimension 99 x 175 mm, with PTFE lined closed-top screw cap (screw thread 33-430)</p>



### Glass:

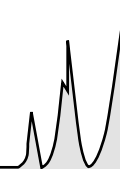
H	clear glass
D	amber glass


replace the «\*» of the product no. with the number of your chosen cleaning procedure described above.

Other volumes and bottle dimensions available. Please inquire.








# Pre-cleaned Vials and Bottles



	<b>8S75-NM-1000-D/P*</b>	1000 ml narrow-mouth screw bottle, amber glass, dimension 98 x 210 mm with PTFE lined closed-top screw cap (screw thread 24-400)
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## Pre-cleaned vials & bottles with open-top screw cap and silicone/PTFE septum

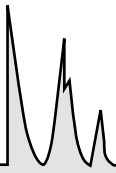
	<b>8S74-20-H/P*</b> <b>8S74-20-D/P*</b>	20 ml screw vial, clear or amber glass, dimension 27 x 57 mm, assembled with open-top screw cap (screw thread 24-414) & 3.2 mm thick clear silicone/PTFE septum
	<b>8S74-40-H/P*-15W</b>	40 ml screw vial, clear glass, dimension 27 x 95 mm, assembled with open-top screw cap (screw thread 24-414) & 1.5 mm thick clear silicone/PTFE cap & septum welded
	<b>8S74-40-H/P*</b> <b>8S74-40-D/P*</b>	40 ml screw vial, clear or amber glass, dimension 27 x 95 mm, assembled with open-top screw cap (screw thread 24-414) & 3.2 mm thick clear silicone/PTFE septum
	<b>8S74-60-H/P*</b> <b>8S74-60-D/P*</b>	60 ml screw vial, clear or amber glass, dimension 27 x 140 mm, assembled with open-top screw cap (screw thread 24-414) & 3.2 mm thick clear silicone/PTFE septum
	<b>8S74-NM-250-H/P*</b>	250 ml narrow-mouth screw bottle, clear glass, dimension 60 x 71 mm, assembled with open-top screw cap (screw thread 24-414) & 3.2 mm thick clear silicone/PTFE septum

### Glass:

H	clear glass
D	amber glass

replace the «\*» of the product no. with the number of your chosen cleaning procedure as described on page 52.

Other volumes and bottle dimensions available. Please inquire.



## Autoclavable lyophilisation crimp vials & caps

### 2 ml - 5 ml lyophilisation crimp vial with 13 mm crimp head



<p><b>8082-16/032-H/AS</b> 2 ml inner surface tempered clear glass 16 x 32 mm</p>	<p><b>8082-16/032-H/FL</b> 2 ml extra flat bottom clear glass 16 x 32 mm</p>	<p><b>8082-15/033-H</b> 2 ml clear glass 15 x 33 mm</p>	<p><b>8082-16/035-H</b> <b>8082-16/035-D</b> 3 ml clear glass / amber glass 16 x 35 mm</p>
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<p><b>8082-15/036-H/SK</b> 3 ml siliconised clear glass 15 x 36 mm</p>	<p><b>8082-15/037-H</b> 3 ml clear glass 15 x 37 mm</p>	<p><b>8082-16/050-D</b> 5 ml amber glass 16 x 50 mm</p>
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### 13 mm aluminium crimp cap with tear-off seal & stopper

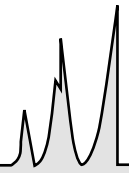


<p><b>8083-TO</b> 13 mm aluminium crimp cap with tear-off seal</p>	<p><b>8083-Lio</b> 13 mm stopper, grey butyl rubber, matching crimp cap 8083-TO</p>	<p><b>8083-Bu</b> 13 mm stopper, grey butyl rubber, matching crimp cap 8083-TO</p>
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#### Glass:

<b>H</b>	clear glass
<b>D</b>	amber glass

# Lyophilisation crimp vials & caps



## 6 ml - 25 ml lyophilisation crimp vial with 20 mm crimp head



**8086-21/038-H/AS**  
6 ml  
inner surface tempered  
clear glass  
21 x 38 mm



**8086-22/040-H**  
**8086-22/040-D**  
6 ml  
clear glass / amber glass  
22 x 40 mm



**8086-24/045-D**  
10 ml  
amber glass  
24 x 45 mm



**8086-24/045-H/AS**  
10 ml  
inner surface tempered  
clear glass  
24 x 45 mm



**G006-10-H/FL**  
10 ml  
extra flat bottom  
clear glass  
23 x 46 mm



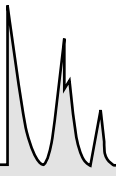
**8086-24/060-H/AS**  
15 ml  
inner surface tempered  
clear glass  
24 x 60 mm



**8086-30/055-H**  
**8086-30/055-D**  
20 ml  
clear glass / amber glass  
30 x 55 mm



**8086-30/065-H/AS**  
25 ml  
inner surface tempered  
clear glass  
30 x 65 mm



## Lyophilisation crimp vials & caps

### 30 ml - 100 ml lyophilisation crimp vial with 20 mm crimp head



<b>8086-36/062-H</b> 30 ml clear glass 36 x 62 mm	<b>8086-43/073-H</b> <b>8086-43/073-D</b> 50 ml clear / amber glass 43 x 73 mm	<b>8086-100-H</b> <b>8086-52/095-D</b> 100 ml clear / amber glass 52 x 95 mm
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### 20 mm aluminium crimp cap with tear-off seal & stopper


















<b>8087-T0</b> 20 mm aluminium crimp cap with tear-off seal	<b>8087-Si</b> 20 mm silicone stopper	<b>8087-Bu</b> 20 mm stopper, grey butyl rubber	<b>8087-Bu/Te</b> 20 mm stopper, grey butyl rubber, black PTFE	<b>8087-Lio2</b> 20 mm stopper, grey butyl rubber <i>(available sterile, min.          pack of 2000 pcs.)</i>	<b>8087-Lio</b> 20 mm stopper, grey butyl rubber
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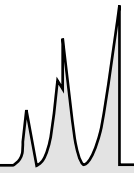
### 20 mm "Flipp-off®" crimp caps

20 mm "Flipp-off®" aluminium crimp cap with plastic disc, available in 15 different colours



 <b>B = blue</b> <b>8087-F0B</b>	 <b>C = clear</b> <b>8087-F0C</b>	 <b>DB = dark blue</b> <b>8087-F0DB</b>	 <b>DG = dark green</b> <b>8087-F0DG</b>	 <b>G = green</b> <b>8087-F0G</b>	 <b>HB = light blue</b> <b>8087-F0HB</b>	 <b>L = lavender</b> <b>8087-F0L</b>	 <b>O = orange</b> <b>8087-F0O</b>
 <b>R = red</b> <b>8087-F0R</b>	 <b>S = black</b> <b>8087-F0S</b>	 <b>V = purple</b> <b>8087-F0V</b>	 <b>W = white</b> <b>8087-F0W</b>	 <b>WS = gray</b> <b>8087-F0WS</b>	 <b>YG = lime</b> <b>8087-F0YG</b>	 <b>Y = yellow</b> <b>8087-F0Y</b>	

# Lyophilisation Screw Vials & Caps



## Autoclavable Lyophilisation Screw Vials

3 ml - 5 ml lyophilisation screw vials, screw-thread GL 18



<b>8084-03-H</b> 3 ml clear glass 18 x 36 mm	<b>8084-03-D</b> 3 ml amber glass 18 x 36 mm	<b>8084-05-H</b> 5 ml clear glass 18 x 41 mm	<b>8084-05-D</b> 5 ml amber glass 18 x 41 mm
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## Screw cap & stopper



<b>8084-CW-Lio</b> 17 mm autoclavable, white polypropylene screw cap	<b>8084-Lio</b> 14 mm stopper, grey butyl rubber	<b>8084-CW-PP</b> 17 mm screw cap polyethylene lined <i>(not autoclavable)</i>
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10 ml - 25 ml lyophilisation screw vials, screw thread GL 14



<b>8084-10-H</b> <b>8084-10-D</b> 10 ml clear / amber glass 25 x 50 mm	<b>8084-30/055-H/SK</b> siliconised 20 ml clear glass 30 x 55 mm	<b>8084-20-H</b> <b>8084-20-D</b> 20 ml clear / amber glass 28 x 63 mm	<b>8084-25-H</b> <b>8084-25-D</b> 25 ml clear / amber glass 32 x 63 mm
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## Screw cap and stopper

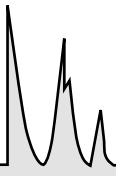


<b>8084-CW/22-Lio</b> 22 mm autoclavable, white polypropylene screw cap	<b>8084-CR/22-Lio</b> 22 mm autoclavable, red polypropylene screw cap	<b>8087-Lio</b> 18 mm stopper, grey butyl rubber, <i>to be used with caps 8084-C*/22-Lio</i>	<b>8084-CW/22-PP</b> 22 mm screw cap with synthetic seal <i>(not autoclavable)</i>
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### Glass:

<b>H</b>	clear glass
<b>D</b>	amber glass





### infochroma's controlled zone for sterile and depyrogenated vials & closures



Since June 2015, infochroma has a controlled zone, where vials and closures may be washed, sterilised, depyrogenated, all according to customer specifications.

Since moving to larger premises in the summer 2016, we have a much larger controlled zone so that we can also swiftly produce large series tailored to customer needs.



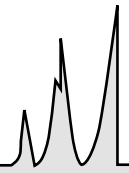
#### This we can do:

- Purified water rinse (de-ionised / de-mineralised water)
- packing in low-particle environment
- hot air sterilisation
- hot-air depyrogenisation
- E-Beam sterilisation in co-operation with contract partners
- individual pack sizes
- individual combination of products per unit
- production of small or large quantities



#### Quality control

- Validated process
- Skilled staff
- IQ/OQ - equipment qualification, rotative PQ
- Visual inspection for visual defects of 100 % of the finished products
- Analysis for sterility and BET test (bacterial endotoxin-test) carried out by an independent accredited microbiology laboratory
- Detection limit BET: <0.001 EU/ml
- Long term objective: GMP accreditation



## Specifications of the controlled zone

### Specifications for structure and infrastructure

The demand on infrastructure, equipment, work process and personnel is high in a controlled zone. The specifications for structure and infrastructure have to be strictly observed in order to achieve the quality required of a controlled zone product.

The controlled zone has to be separated from the office and warehouse area by a sluice area. This spatial separation minimises the risk of contamination through germs.

It is also indispensable that all surfaces, including walls, ceiling, equipment and so forth, in the controlled zone as well as the sluice area can be completely disinfected. In addition, the air in the controlled zone is cleaned by HEPA filters and the ambient air is controlled by an air conditioner.



### Monitoring of material / flowing of goods / storing of finished products

Storing material in an aseptic environment is essential for achieving the required quality of a controlled zone product. infochroma stores all required material exclusively in the sluice area.

Alongside, we introduced a strictly separated goods flow system which allows us to visually and accurately identify the current status of a controlled zone product. The finished product is stored protected from light, in ambient temperature and a particle free area until delivery to the customer.

As of summer 2016, the finished products will be stored at a controlled and stable temperature in the controlled zone. The shelf life of a controlled zone product is two years from date of production.



### Controlled zone staff

The controlled zone production at infochroma is exclusively operated by trained personnel.

Trained personnel only is allowed to enter the controlled zone.

Access to the controlled zone is only allowed to personnel wearing protective clothing.

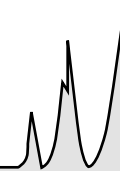


### Machine park:

- ☛ Miele Mielabor G7783 CD
- ☛ KOJAIR CleanWizard V 200
- ☛ hawo HM 660 AS-V
- ☛ Memmert SF 750 Plus












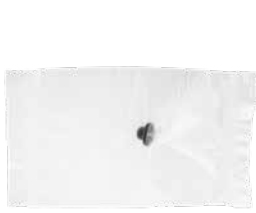
## Sterile & depyrogenated vials and closures from the in-house controlled zone

Process	Typical Application	Description
Depyrogenation validated 3-log reduction	Injectable or parenteral drugs, lyophilisation, final packaging prior to drug delivery, stability studies, clinical trial	Depyrogenation destroys and removes endotoxines. Endotoxines are fever producing substances which are found in the cell wall of certain bacteria. Depyrogenated products have reduced endotoxin content by at least 99.9%.
Steam Sterilisation	Injectable or parenteral drugs, lyophilisation, final packaging prior to drug delivery, stability studies	Sterilization involving steam, heat and pressure to destroy all viable forms of life, including bacterial spores to an acceptable sterility assurance level (SAL) of $10^{-6}$
Irradiation	Injectable or parenteral drugs, lyophilisation, final packaging prior to drug delivery, stability studies, clinical trials	A radiation dose sufficient to destroy all viable forms of life including bacterial spores, is applied to an acceptable sterility level (SAL). A typical radiation dose is 25-40 kGy, which produces the required SAL of $10^{-6}$

In the infochroma controlled zone we clean, sterilise and depyrogenise (endotoxin content < 0.05 EU/ml) vials and closures according to customer specifications. It can also be specified how many pieces of a product and what combination of products an individual sachet should contain. All products are supplied with a lot specific certificate.

On the next pages you find an extract from our controlled zone product range.  
For customer specific products please contact: [anfrage@infochroma.ch](mailto:anfrage@infochroma.ch).

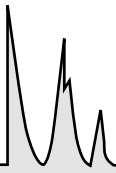
### 3 ml crimp vial with 13 mm crimp head & closures

		<b>GPEZ-16/035-H</b> <b>GPEZ-16/035-D</b>	3 ml crimp vial with 13 mm crimp head, clear or amber glass, dimension 16 x 35 mm, individually sealed, sterile & depyrogenated, including lot specific certificate
		<b>GPEZ-3TO</b>	13 mm aluminium crimp cap with tear-off seal, individually sealed, sterile & depyrogenated, including lot specific certificate
		<b>GPEZ-3Bu</b>	13 mm grey butyl rubber stopper, individually sealed, sterile & depyrogenated, including lot specific certificate

#### Glass:



<b>H</b>	clear glass
<b>D</b>	amber glass















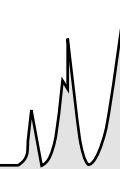
# Sterile & depyrogenated products from the controlled zone

## Sterile & depyrogenated vials and closures from the in-house controlled zone

 <p><b>Infochroma ag</b> Mit Zertifikat für die Entpyrogenisierung im Heissluftverfahren Zertifikat pdf 1.1 M</p>		<p><b>GPEZ-16/035-H/3BuTO</b> <b>GPEZ-16/035-D/3BuTO</b></p>	<p>The individual kit contains the following sterile and depyrogenated products:</p> <ul style="list-style-type: none"> <li>3 ml crimp vial, with 13 mm crimp head, clear or amber glass, dimension 16 x 35 mm</li> <li>13 mm aluminium crimp cap with tear-off seal</li> <li>13 mm grey butyl rubber stopper including lot specific certificate</li> </ul>
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## 5 ml - 100 ml crimp vial with 20 mm crimp head & closures

 <p><b>Infochroma ag</b> Mit Zertifikat für die Entpyrogenisierung im Heissluftverfahren Zertifikat pdf 1.1 M</p>		<p><b>GPEZ-22/040-H</b> <b>GPEZ-22/040-D</b></p>	<p>5 ml crimp vial with 20 mm crimp head, clear or amber glass, dimension 22 x 40 mm, individually sealed, sterile &amp; depyrogenated, including lot specific certificate</p>
 <p><b>Infochroma ag</b> Mit Zertifikat für die Entpyrogenisierung im Heissluftverfahren Zertifikat pdf 1.1 M</p>		<p><b>GPEZ-24/045-H</b> <b>GPEZ-24/045-D</b></p>	<p>10 ml crimp vial with 20 mm crimp head, clear or amber glass, dimension 24 x 45 mm, individually sealed, sterile &amp; depyrogenated, including lot specific certificate</p>
 <p><b>Infochroma ag</b> Mit Zertifikat für die Entpyrogenisierung im Heissluftverfahren Zertifikat pdf 1.1 M</p>		<p><b>GPEZ-43/073-H</b> <b>GPEZ-43/073-D</b></p>	<p>50 ml crimp vial with 20 mm crimp head, clear or amber glass, dimension 43 x 73 mm, individually sealed, sterile &amp; depyrogenated, including lot specific certificate</p>
 <p><b>Infochroma ag</b> Mit Zertifikat für die Entpyrogenisierung im Heissluftverfahren f 1.1 M</p>		<p><b>GPEZ-7TO</b></p>	<p>20 mm aluminium crimp cap with tear-off seal, individually sealed, sterile &amp; depyrogenated, including lot specific certificate</p>
 <p><b>Infochroma ag</b> Mit Zertifikat für die Entpyrogenisierung im Heissluftverfahren f 1.1 M</p>		<p><b>GPEZ-7Lio2</b></p>	<p>20 mm grey butyl rubber stopper, individually sealed, sterile &amp; depyrogenated, including lot specific certificate</p>



## Sterile & depyrogenated vials and closures from the in-house controlled zone

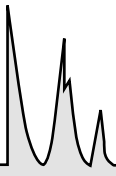
### 5 ml - 100 ml crimp vial with 20 mm crimp head & closures

<p><b>Infochroma ag</b>          Mit Zertifikat für die Entpyrogenation im Heißluftverfahren          Zertifikat pdf 1.1 M</p>		<p><b>GPEZ-22/040-H/7Lio2TO</b>  <b>GPEZ-22/040-D/7Lio2TO</b></p>	<p>The individual kit contains the following sterile and depyrogenated products:</p> <ul style="list-style-type: none"> <li>5 ml crimp vial with 20 mm crimp head, clear or amber glass, dimension 22 x 40 mm,</li> <li>20 mm aluminium crimp cap with tear-off seal,</li> <li>20 mm grey butyl rubber stopper, including lot specific certificate</li> </ul>
<p><b>Infochroma ag</b>          Mit Zertifikat für die Entpyrogenation im Heißluftverfahren          Zertifikat pdf 1.1 M</p>		<p><b>GPEZ-24/045-H/7Lio2TO</b>  <b>GPEZ-24/045-D/7Lio2TO</b></p>	<p>The individual kit contains the following sterile and depyrogenated products:</p> <ul style="list-style-type: none"> <li>10 ml crimp vial with 20 mm crimp head, clear or amber glass, dimension 24 x 45 mm,</li> <li>20 mm aluminium crimp cap with tear-off seal,</li> <li>20 mm grey butyl rubber stopper including lot specific certificate</li> </ul>
<p><b>Infochroma ag</b>          Mit Zertifikat für die Entpyrogenation im Heißluftverfahren          Zertifikat pdf 1.1 M</p>		<p><b>GPEZ-43/073-H/7Lio2TO</b>  <b>GPEZ-43/073-D/7Lio2TO</b></p>	<p>The individual kit contains the following sterile and depyrogenated products:</p> <ul style="list-style-type: none"> <li>50 ml crimp vial with 20 mm crimp head, clear or amber glass, dimension 43 x 73 mm,</li> <li>20 mm aluminium crimp cap with tear-off seal,</li> <li>20 mm grey butyl rubber stopper including lot specific certificate</li> </ul>

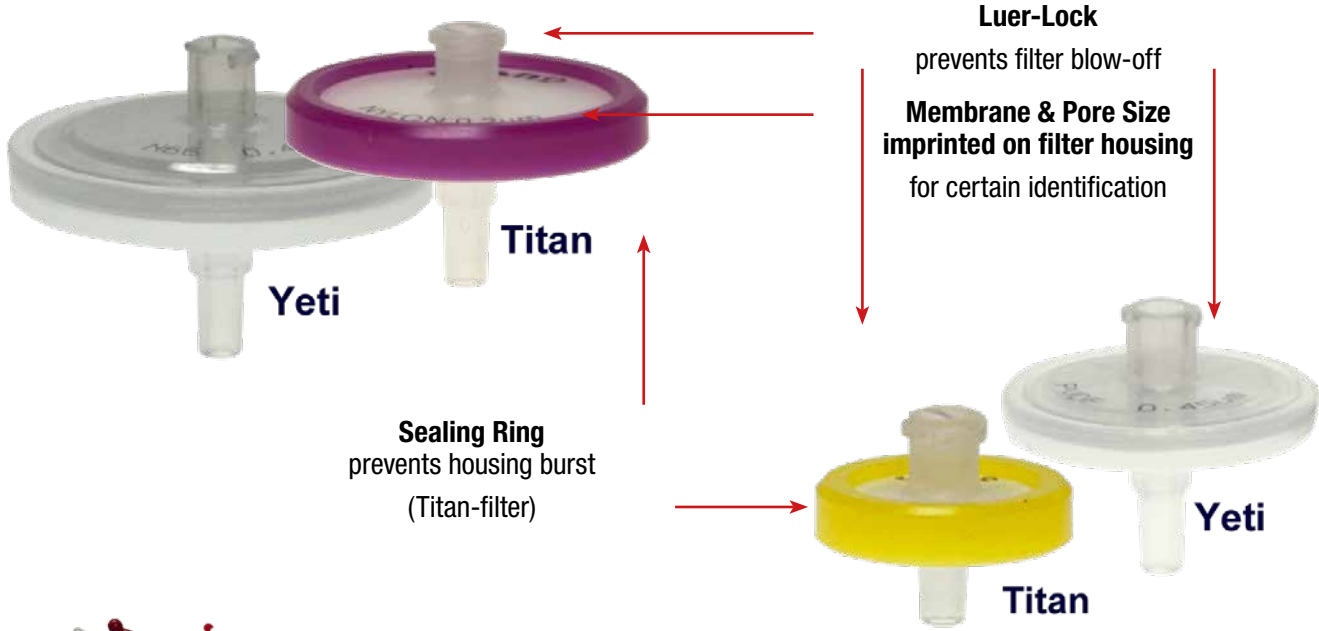
#### Glass:

<b>H</b>	clear glass
<b>D</b>	amber glass











## HPLC Syringe filter and accessory



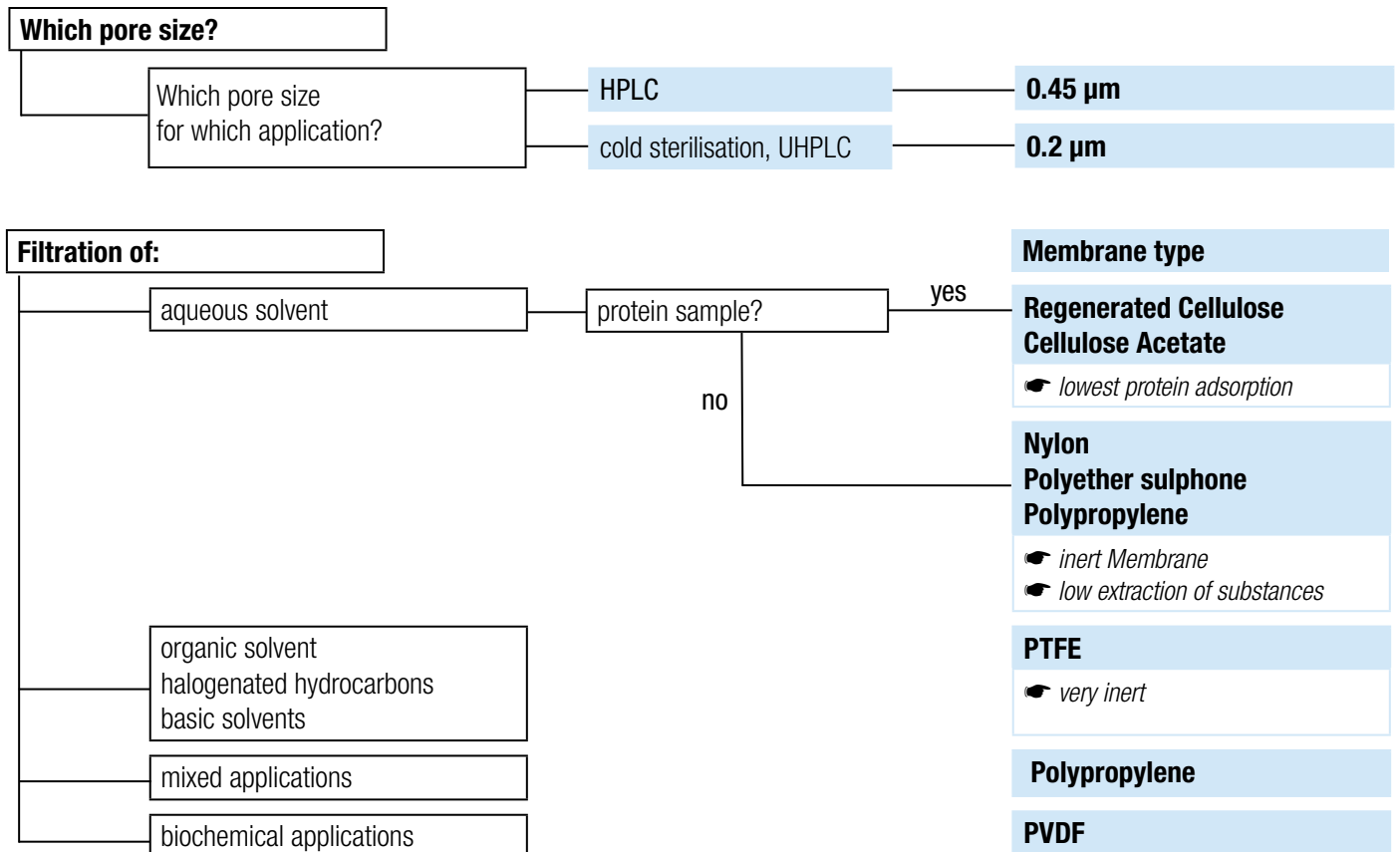
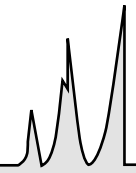
All Yeti filter diameters and membranes are available with pore sizes from 0.1 µm to 10 µm.

For conventional Chromatography we recommend a pore size of 0.45 µm, for UHPLC pore sizes from 0.22 µm or 0.1 µm.

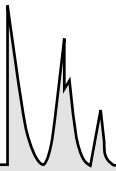
## Which filter diameter for which sample volume?

 <p>Yeti Titan</p>	<p><b>sample volume ≤ 2 ml</b> sample loss &lt; 7.5 µl</p> <p>4 mm filter</p>	 <p>Yeti</p>	<p><b>sample volume ≤ 100 ml</b> sample loss &lt; 50 µl</p> <p>25 mm filter</p>
 <p>Yeti</p>	<p><b>sample volume ≤ 10 ml</b> sample loss &lt; 25 µl</p> <p>13 mm filter</p>	 <p>Titan</p>	<p><b>sample volume ≤ 150 ml</b> sample loss &lt; 100 µl</p> <p>30 mm filter</p>
 <p>Titan</p>	<p><b>sample volume ≤ 20 ml</b> sample loss &lt; 30 µl</p> <p>17 mm filter</p>	 <p>Yeti</p>	<p><b>sample volume ≤ 200 ml</b> sample loss &lt; 137 µl</p> <p>33 mm filter</p>

# HPLC syringe filter



Membranes and their properties	Nylon (N)	Regenerated Cellulose (RC)	PTFE Hydrophobic (P)	PTFE Hydrophilic (P-x/HY)	Polyether sulphone (PES)	Cellulose Acetate (CA) Mixed Cellulose Ester (MCE)	Poly-Vinyliden-Di-Fluoride (PVDF)	Polypropylen (PP)
alcohol	X		X	X	X		X	X
aromatic compounds			X	X				
bases	X							
benzoic hydrocarbons			X	X				
bio molecules		X					X	
solvents			X	X				
hexane			X	X				
organic solvent			X	X				
peptide		X			X		X	
proteins		X			X		X	
weak acids	X		X	X			X	
strong bases			X	X	X			
strong acids			X	X				
THF	X		X	X				
water	X	X		X				X
aqueous solvents	X	X		X				X
aqueous samples	X	X		X		X		X



## Yeti syringe filter

- ☛ Luer-Lock prevents filter blow-off.
- ☛ Membrane & porosity imprinted on filter housing for certain identification
- ☛ Porosities from: 0.1 µm - 10 µm
- ☛ Available membranes:  
Nylon, Regenerated Cellulose, Polypropylene, PTFE, Polyethersulfone, MCE, PVDF
- ☛ Available filter diameters:
  - 8804Y = ø 4 mm - sample volume up to 2 ml
  - 8813Y = ø 13 mm - sample volume up to 10 ml
  - 8825Y = ø 25 mm - sample volume up to 100 ml
  - 8833Y = ø approx. 30 mm - sample volume up to approx. 200 ml

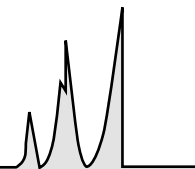


Membrane	available pore sizes										
	0.1 µm	0.22 µm	0.45 µm	-	0.8 µm	1.0 µm	-	-	3.0 µm	5.0 µm	10 µm
<b>Nylon</b>	0.1 µm	0.22 µm	0.45 µm	-	0.8 µm	1.0 µm	-	-	3.0 µm	5.0 µm	10 µm
<b>Regenerated Cellulose</b>	-	0.22 µm	0.45 µm	-	-	-	-	-	-	-	-
<b>Polypropylene</b>	0.1 µm	0.22 µm	0.45 µm	-	-	-	1.2 µm	2.0 µm	-	-	-
<b>PTFE Hydrophobic</b>	0.1 µm	0.22 µm	0.45 µm	-	0.8 µm	1.0 µm	-	-	3.0 µm	5.0 µm	10 µm
<b>PTFE Hydrophilic</b>	-	0.22 µm	0.45 µm	-	-	-	-	-	-	-	-
<b>PES</b>	0.1 µm	0.22 µm	0.45 µm	0.65 µm	0.8 µm	-	1.2 µm	-	-	-	-
<b>MCE</b> <i>Mixed Cellulose Ester</i>	0.1 µm	0.22 µm	0.45 µm	-	0.8 µm	1.0 µm	-	-	3.0 µm	5.0 µm	-
<b>PVDF</b> <i>Poly-Vinyliden-Di-Fluoride</i>	0.1 µm	0.22 µm	0.45 µm	0.65 µm	-	1.0 µm	-	2.0 µm	3.0 µm	5.0 µm	-
<b>Product Code for Pore Sizes</b>	<b>-1</b>	<b>-2</b>	<b>-4</b>	<b>-6</b>	<b>-8</b>	<b>-10</b>	<b>-12</b>	<b>-20</b>	<b>-30</b>	<b>-50</b>	<b>-100</b>

Order information: replace «x» with the pore size of your choice, see table above

Membrane	4 mm	13 mm	25 mm	33 mm
<b>Nylon</b>	8804Y-N-x	8813Y-N-x	8825Y-N-x	8833Y-N-x
<b>Regenerated Cellulose</b>	8804Y-RC-x	8813Y-RC-x	8825Y-RC-x	8833Y-RC-x
<b>Polypropylene</b>	8804Y-PP-x	8813Y-PP-x	8825Y-PP-x	8833Y-PP-x
<b>PTFE Hydrophobic</b>	8804Y-P-x	8813Y-P-x	8825Y-P-x	8833Y-P-x
<b>PTFE Hydrophilic</b>	8804Y-P-x/HY	8813Y-P-x/HY	8825Y-P-x/HY	8833Y-P-x/HY
<b>PES</b>	8804Y-PES-x	8813Y-PES-x	8825Y-PES-x	8833Y-PES-x
<b>MCE</b>	8804Y-MCE-x	8813Y-MCE-x	8825Y-MCE-x	8833Y-MCE-x
<b>PVDF</b> <i>Poly-Vinyliden-Di-Fluoride</i>	8804Y-PV-x	8813Y-PV-x	8825Y-PV-x	8833Y-PV-x
pack size	pack of 200 pcs.	pack of 250 pcs.	pack of 200 pcs.	pack of 125 pcs.

# HPLC syringe filter



## HPLC syringe filter with Nylon membrane

### for the filtration of:









water, aqueous solvents, alcohol, bases, aromatic hydrocarbons, THF

The Nylon membrane is extremely low in extractables and mechanically very strong. It possesses good thermal stability up to 50°C and is a good all-round filter for HPLC samples. It is a naturally hydrophilic membrane that provides broad compatibility with aqueous and organic samples.

### incompatible with:

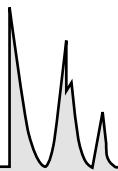
acids, halogenated solvents, protein samples with high non-specific binding affinities



Filtration volume	up to 2 ml	up to 10 ml	up to 30 ml	up to 100 ml	up to 150 ml	up to 200 ml
Sample loss	< 15 µl	< 25 µl	< 29 µl	< 50 µl	< 137 µl	< 137 µl
Filter ø	4 mm	13 mm	17 mm	25 mm	30 mm	33 mm
Pore size Filter colour / brand						
0.1 µm Yeti 	8804Y-N-1 200 pcs./pack	8813Y-N-1 250 pcs./pack	-	8825Y-N-1 200 pcs./pack	-	8833Y-N-1 125 pcs./pack
0.22 µm Yeti 	8804Y-N-2 200 pcs./pack	8813Y-N-2 250 pcs./pack	-	8825Y-N-2 200 pcs./pack	-	8833Y-N-2 125 pcs./pack
0.22 µm Titan	8804-N-2 100 pcs./pack	-	8817-N-2 200 pcs./pack	-	8830-N-2 100 pcs./pack	-
0.45 µm Yeti 	8804Y-N-4 200 pcs./pack	8813Y-N-4 250 pcs./pack	-	8825Y-N-4 200 pcs./pack	-	8833Y-N-4 125 pcs./pack
0.45 µm Titan	8804-N-4 100 pcs./pack	-	8817-N-4 200 pcs./pack	-	8830-N-4 100 pcs./pack	-
0.8 µm Yeti 	8804Y-N-8 200 pcs./pack	8813Y-N-8 250 pcs./pack	-	8825Y-N-8 200 pcs./pack	-	8833Y-N-8 125 pcs./pack
1.0 µm Yeti 	8804Y-N-10 200 pcs./pack	8813Y-N-10 250 pcs./pack	-	8825Y-N-10 200 pcs./pack	-	8833Y-N-10 125 pcs./pack
1.5 µm Titan	-	-	-	-	8830-N-15 100 pcs./pack	-
3.0 µm Yeti 	8804Y-N-30 200 pcs./pack	8813Y-N-30 250 pcs./pack	-	8825Y-N-30 200 pcs./pack	-	8833Y-N-30 125 pcs./pack
5.0 µm Yeti 	8804Y-N-50 200 pcs./pack	8813Y-N-50 250 pcs./pack	-	8825Y-N-50 200 pcs./pack	-	8833Y-N-50 125 pcs./pack
5.0 µm Titan	-	-	-	-	8830-N-50 100 pcs./pack	-
10 µm Yeti 	8804Y-N-100 200 pcs./pack	8813Y-N-100 250 pcs./pack	-	8825Y-N-100 200 pcs./pack	-	8833Y-N-100 125 pcs./pack

When ordering Yeti filter please note that:

filters with product numbers printed in blue are available ex stock, subject to prior sale;  
other filters have a standard delivery delay of at least 2 weeks.





## HPLC syringe filter with regenerated cellulose membrane

for the filtration of: proteins, peptides and other biomolecules

Regenerated cellulose is a hydrophilic solvent resistant membrane. It is a very low protein binder and is ideal for low nonspecific binding applications; tissue culture, media filtration and general biological sample filtration.



**incompatible with:** acids, chloroform, THF

Filtration volume	up to 2 ml	up to 10 ml	up to 30 ml	up to 100 ml	up to 150 ml	up to 200 ml
Sample loss	< 15 µl	< 25 µl	< 29 µl	< 50 µl	< 137 µl	< 137 µl
Filter ø Pore size Filter colour / brand	4 mm	13 mm	17 mm	25 mm	30 mm	33 mm
0.22 µm Yeti 	<a href="#">8804Y-RC-2</a> 200 pcs./pack	<a href="#">8813Y-RC-2</a> 250 pcs./pack	-	<a href="#">8825Y-RC-2</a> 200 pcs./pack	-	<a href="#">8830Y-RC-2</a> 125 pcs./pack
0.22 µm Titan	<a href="#">8804-RC-2</a> 100 pcs./pack	-	<a href="#">8817-RC-2</a> 200 pcs./pack	-	<a href="#">8830-RC-2</a> 100 pcs./pack	-
0.45 µm Yeti 	<a href="#">8804Y-RC-4</a> 200 pcs./pack	<a href="#">8813Y-RC-4</a> 250 pcs./pack	-	<a href="#">8825Y-RC-4</a> 200 pcs./pack	-	<a href="#">8830Y-RC-4</a> 125 pcs./pack
0.45 µm Titan	<a href="#">8804-RC-4</a> 100 pcs./pack	-	<a href="#">8817-RC-4</a> 200 pcs./pack	-	<a href="#">8830-RC-4</a> 100 pcs./pack	-






## HPLC syringe filter with Polypropylene membrane

for the filtration of: acids or bases, general HPLC analysis

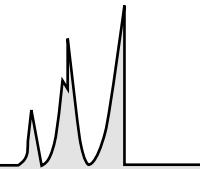
Hydrophilic polypropylene membranes are chemically resistant and suitable for a wide variety of organic and aqueous based samples. They are low protein binders and can be used with strong acids and bases without prewetting.



**incompatible with:** Hexane, Toluene, Benzene, limited resistance to MeCl and Chloroform

Filtration volume	up to 2 ml	up to 10 ml	up to 30 ml	up to 100 ml	up to 150 ml	up to 200 ml
Sample loss	< 15 µl	< 25 µl	< 29 µl	< 50 µl	< 137 µl	< 137 µl
Filter ø Pore size Filter colour / brand	4 mm	13 mm	17 mm	25 mm	30 mm	33 mm
0.1 µm Yeti 	-	-	-	<a href="#">8825Y-PP-1</a> 200 pcs./pack	-	<a href="#">8833Y-PP-1</a> 125 pcs./pack
0.22 µm Yeti 	<a href="#">8804Y-PP-2</a> 200 pcs./pack	<a href="#">8813Y-PP-2</a> 250 pcs./pack	-	<a href="#">8825Y-PP-2</a> 200 pcs./pack	-	<a href="#">8833Y-PP-2</a> 125 pcs./pack
0.22 µm Titan	-	-	<a href="#">8817-PP-2</a> 200 pcs./pack	-	<a href="#">8830-PP-2</a> 100 pcs./pack	-
0.45 µm Yeti 	<a href="#">8804Y-PP-4</a> 200 pcs./pack	<a href="#">8813Y-PP-4</a> 250 pcs./pack	-	<a href="#">8825Y-PP-4</a> 200 pcs./pack	-	<a href="#">8833Y-PP-4</a> 125 pcs./pack
0.45 µm Titan	-	-	<a href="#">8817-PP-4</a> 200 pcs./pack	-	<a href="#">8830-PP-4</a> 100 pcs./pack	-
1.2 µm Yeti 	<a href="#">8804Y-PP-12</a> 200 pcs./pack	<a href="#">8813Y-PP-12</a> 250 pcs./pack	-	<a href="#">8825Y-PP-12</a> 200 pcs./pack	-	<a href="#">8833Y-PP-12</a> 125 pcs./pack
2.0 µm Yeti 	<a href="#">8804Y-PP-20</a> 200 pcs./pack	<a href="#">8813Y-PP-20</a> 250 pcs./pack	-	<a href="#">8825Y-PP-20</a> 200 pcs./pack	-	<a href="#">8833Y-PP-20</a> 125 pcs./pack

# HPLC syringe filter



## HPLC syringe filter with PTFE membrane









**for the filtration of:** aggressive solvents, strong acids, alcohols, bases, aromatics

Polytetrafluoroethylene (PTFE) membranes are chemically resistant to nearly all solvents, acids and bases. The membrane has low extractables and a good thermal stability. PTFE is hydrophobic and requires pre-wetting prior to use with aqueous solvents.

The **Yeti filter** is also available with a **hydrophilic PTFE Membrane** which can be used with water, aqueous samples and aqueous solvents.



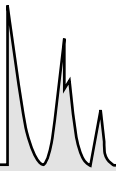
**incompatible with:** hydrophobic PTFE with aqueous Samples without pre-wetting of filter

Filtration volume	up to 2 ml	up to 10 ml	up to 30 ml	up to 100 ml	up to 150 ml	up to 200 ml
Sample loss	< 15 µl	< 25 µl	< 29 µl	< 50 µl	< 137 µl	< 137 µl
Filter ø	4 mm	13 mm	17 mm	25 mm	30 mm	33 mm
Pore Size Filter Colour / Brand						
0.1 µm Yeti 	-	<a href="#">8813Y-P-1</a> <i>250 pcs./pack</i>	-	<a href="#">8825Y-P-1</a> <i>200 pcs./pack</i>	-	<a href="#">8833Y-P-1</a> <i>125 pcs./pack</i>
0.22 µm Yeti Hydrophilic (HY) 	<a href="#">8804Y-P-2</a> <i>200 pcs./pack</i>	<a href="#">8813Y-P-2</a> <i>250 pcs./pack</i>	-	<a href="#">8825Y-P-2</a> <i>200 pcs./pack</i>	-	<a href="#">8833Y-P-2</a> <i>125 pcs./pack</i>
	<a href="#">8804Y-P-2/HY</a> <i>200 pcs./pack</i>	<a href="#">8813Y-P-2/HY</a> <i>250 pcs./pack</i>		<a href="#">8825Y-P-2/HY</a> <i>200 pcs./pack</i>		<a href="#">8833Y-P-2/HY</a> <i>125 pcs./pack</i>
0.22 µm Titan	<a href="#">8804-P-2</a> <i>100 pcs./pack</i>	-	<a href="#">8817-P-2</a> <i>200 pcs./pack</i>	-	<a href="#">8830-P-2</a> <i>100 pcs./pack</i>	-
0.45 µm Yeti Hydrophilic (HY) 	<a href="#">8804Y-P-4</a> <i>200 pcs./pack</i>	<a href="#">8813Y-P-4</a> <i>250 pcs./pack</i>	-	<a href="#">8825Y-P-4</a> <i>200 pcs./pack</i>	-	<a href="#">8833Y-P-4</a> <i>125 pcs./pack</i>
	<a href="#">8804Y-P-4/HY</a> <i>200 pcs./pack</i>	<a href="#">8813Y-P-4/HY</a> <i>250 pcs./pack</i>		<a href="#">8825Y-P-4/HY</a> <i>200 pcs./pack</i>		<a href="#">8833Y-P-4/HY</a> <i>125 pcs./pack</i>
0.45 µm Titan	<a href="#">8804-P-4</a> <i>100 pcs./pack</i>	-	<a href="#">8817-P-4</a> <i>200 pcs./pack</i>	-	<a href="#">8830-P-4</a> <i>100 pcs./pack</i>	-
0.8 µm Yeti 	-	-	-	-	-	<a href="#">8833Y-P-8</a> <i>125 pcs./pack</i>
1.0 µm Yeti 	<a href="#">8804Y-P-10</a> <i>200 pcs./pack</i>	<a href="#">8813Y-P-10</a> <i>250 pcs./pack</i>	-	<a href="#">8825Y-P-10</a> <i>200 pcs./pack</i>	-	<a href="#">8833Y-P-10</a> <i>125 pcs./pack</i>
1.0 µm Titan	-	-	-	-	<a href="#">8830-P-10</a> <i>100 pcs./pack</i>	-
3.0 µm Yeti 	<a href="#">8804Y-P-30</a> <i>200 pcs./pack</i>	<a href="#">8813Y-P-30</a> <i>250 pcs./pack</i>	-	<a href="#">8825Y-P-30</a> <i>200 pcs./pack</i>	-	<a href="#">8833Y-P-30</a> <i>125 pcs./pack</i>
5.0 µm Yeti 	<a href="#">8804Y-P-50</a> <i>200 pcs./pack</i>	<a href="#">8813Y-P-50</a> <i>250 pcs./pack</i>	-	<a href="#">8825Y-P-50</a> <i>200 pcs./pack</i>	-	<a href="#">8833Y-P-50</a> <i>125 pcs./pack</i>
10 µm Yeti 	-	<a href="#">8813Y-P-100</a> <i>250 pcs./pack</i>	-	<a href="#">8825Y-P-100</a> <i>200 pcs./pack</i>	-	<a href="#">8833Y-P-100</a> <i>125 pcs./pack</i>

When ordering Yeti filter please note that:

filters with product numbers printed in blue are available ex stock, subject to prior sale;  
other filters have a standard delivery delay of at least 2 weeks.





# HPLC syringe filter







## HPLC syringe filter with Polyethersulfone membrane

for the filtration of: strong bases, alcohols, proteins, peptide

Polyethersulfone is a hydrophilic membrane with very low protein binding and high flow characteristics. It is also certified for ion chromatography. Polyethersulfone is more heat resistant than most membranes, and can be used to 100°C.



**incompatible with:** concentrated acids, MeCl, chloroform, hexane, acetone, MEK, THF, DMSO

Filtration volume	up to 2 ml	up to 10 ml	up to 30 ml	up to 100 ml	up to 150 ml	up to 200 ml
Sample loss	< 15 µl	< 25 µl	< 29 µl	< 50 µl	< 137 µl	< 137 µl
Filter ø	4 mm	13 mm	17 mm	25 mm	30 mm	33 mm
Pore size						
Filter colour / brand						
0.1 µm Yeti 	8804Y-PES-1 200 pcs./pack	8813Y-PES-1 250 pcs./pack	-	8825Y-PES-1 200 pcs./pack	-	8833Y-PES-1 125 pcs./pack
0.22 µm Yeti 	8804Y-PES-2 200 pcs./pack	8813Y-PES-2 250 pcs./pack	-	8825Y-PES-2 200 pcs./pack	-	8833Y-PES-2 125 pcs./pack
0.22 µm Titan	-	-	8817-PES-2 200 pcs./pack	-	8830-PES-2 100 pcs./pack	-
0.45 µm Yeti 	8804Y-PES-4 200 pcs./pack	8813Y-PES-4 250 pcs./pack	-	8825Y-PES-4 200 pcs./pack	-	8833Y-PES-4 125 pcs./pack
0.45 µm Titan	-	-	8817-PES-4 200 pcs./pack	-	8830-PES-4 100 pcs./pack	-
0.65 µm Yeti 	-	8813Y-PES-6 250 pcs./pack	-	8825Y-PES-6 200 pcs./pack	-	8833Y-PES-6 125 pcs./pack
0.8 µm Yeti 	-	8813Y-PES-8 250 pcs./pack	-	8825Y-PES-8 200 pcs./pack	-	8833Y-PES-8 125 pcs./pack
1.2 µm Yeti 	8804Y-PES-12 200 pcs./pack	8813Y-PES-12 250 pcs./pack	-	8825Y-PES-12 200 pcs./pack	-	8833Y-PES-12 125 pcs./pack

[www.chemoline.ch](http://www.chemoline.ch)

### Erlenmeyer flask

(Product number: borosilicate glass, 100 ml: 50-2603)

- ☛ various glass qualities available (Duran® or borosilicate)
- ☛ with or without graduation
- ☛ various models and volumes



[www.chemoline.ch](http://www.chemoline.ch)

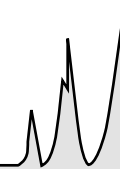
### Galileo thermometer with 6 bulbs

(Product number: aluminium bulbs filled with blue liquid: 55-1180)

- ☛ various colours available
- ☛ height 42 cm
- ☛ temperature range + 18°C bis + 28°C
- ☛ weight 800 g



# HPLC syringe filter










## HPLC syringe filter with Mixed Cellulose Ester (MCE) or Cellulose Acetate (CA) membrane

for the filtration of: aqueous samples

low protein-adsorption, hydrophilic membrane

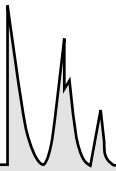
incompatible with: *organic solvents*



Filtration volume	up to 2 ml	up to 10 ml	up to 30 ml	up to 100 ml	up to 150 ml	up to 200 ml
Sample loss	< 15 µl	< 25 µl	< 29 µl	< 50 µl	< 137 µl	< 137 µl
Filter ø	4 mm	13 mm	17 mm	25 mm	30 mm	33 mm
Pore Size Filter Colour / Brand						
0.1 µm Yeti 	-	8813Y-MCE-1 250 pcs./pack	-	8825Y-MCE-1 200 pcs./pack	-	8833Y-MCE-1 125 pcs./pack
0.22 µm Yeti 	8804Y-MCE-2 200 pcs./pack	8813Y-MCE-2 250 pcs./pack	-	8825Y-MCE-2 200 pcs./pack	-	8833Y-MCE-2 125 pcs./pack
0.22 µm Titan	8804-CA-2 100 pcs./pack	-	8817-CA-2 200 pcs./pack	-	8830-CA-2 100 pcs./pack	-
0.45 µm Yeti 	8804Y-MCE-4 200 pcs./pack	8813Y-MCE-4 250 pcs./pack	-	8825Y-MCE-4 200 pcs./pack	-	8833Y-MCE-4 125 pcs./pack
0.45 µm Titan	8804-CA-4 100 pcs./pack	-	8817-CA-4 200 pcs./pack	-	8830-CA-4 100 pcs./pack	-
0.8 µm Yeti 	8804Y-MCE-8 200 pcs./pack	8813Y-MCE-8 250 pcs./pack	-	8825Y-MCE-8 200 pcs./pack	-	8833Y-MCE-8 125 pcs./pack
1.0 µm Yeti 	8804Y-MCE-10 200 pcs./pack	8813Y-MCE-10 250 pcs./pack	-	8825Y-MCE-10 200 pcs./pack	-	8833Y-MCE-10 125 pcs./pack
3.0 µm Yeti 	8804Y-MCE-30 200 pcs./pack	8813Y-MCE-30 250 pcs./pack	-	8825Y-MCE-30 200 pcs./pack	-	8833Y-MCE-30 125 pcs./pack
5.0 µm Yeti 	8804Y-MCE-50 200 pcs./pack	8813Y-MCE-50 250 pcs./pack	-	8825Y-MCE-50 200 pcs./pack	-	8833Y-MCE-50 125 pcs./pack

When ordering Yeti filter please note that:

filters with product numbers printed in blue are available ex stock, subject to prior sale;  
other filters have a standard delivery delay of at least 2 weeks.











## HPLC syringe filter with Polyvinylidene Difluoride (PVDF) membrane

**for the filtration of:** alcohol, weak acids, proteins, peptides and other biomolecules

Polyvinylidene Difluoride is a hydrophilic membrane that is suitable for most general biological sample filtration. It has a broad chemical compatibility and is a low protein binder and so a good choice where high protein recovery is required.

**incompatible with:** strong acids, bases, ketone

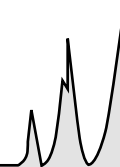


Filtration volume	up to 2 ml	up to 10 ml	up to 30 ml	up to 100 ml	up to 150 ml	up to 200 ml
Sample loss	< 15 µl	< 25 µl	< 29 µl	< 50 µl	< 137 µl	< 137 µl
Filter ø	4 mm	13 mm	17 mm	25 mm	30 mm	33 mm
Pore size Filter colour / brand						
0.1 µm Yeti 	8804Y-PV-1 200 pcs./pack	8813Y-PV-1 250 pcs./pack	-	8825Y-PV-1 200 pcs./pack	-	8833Y-PV-1 125 pcs./pack
0.22 µm Yeti 	8804Y-PV-2 200 pcs./pack	8813Y-PV-2 250 pcs./pack	-	8825Y-PV-2 200 pcs./pack	-	8833Y-PV-2 125 pcs./pack
0.22 µm Titan	8804-PV-2 100 pcs./pack	-	8817-PV-2 200 pcs./pack	-	8830-PV-2 100 pcs./pack	-
0.45 µm Yeti 	8804Y-PV-4 200 pcs./pack	8813Y-PV-4 250 pcs./pack	-	8825Y-PV-4 200 pcs./pack	-	8833Y-PV-4 125 pcs./pack
0.45 µm Titan	8804-PV-4 100 pcs./pack	-	8817-PV-4 200 pcs./pack	-	8830-PV-4 100 pcs./pack	-
0.65 µm Yeti 	-	8813Y-PV-6 250 pcs./pack	-	8825Y-PV-6 200 pcs./pack	-	8833Y-PV-6 125 pcs./pack
1.0 µm Yeti 	-	8813Y-PV-10 250 pcs./pack	-	8825Y-PV-10 200 pcs./pack	-	8833Y-PV-10 125 pcs./pack
2.0 µm Yeti 	-	-	-	-	-	8833Y-PV-20 125 pcs./pack
3.0 µm Yeti 	-	8813Y-PV-30 250 pcs./pack	-	8825Y-PV-30 200 pcs./pack	-	8833Y-PV-30 125 pcs./pack
5.0 µm Yeti 	-	8813Y-PV-50 250 pcs./pack	-	8825Y-PV-50 200 pcs./pack	-	8833Y-PV-50 125 pcs./pack

When ordering Yeti filter please note that:  
filters with product numbers printed in blue are available ex stock, subject to prior sale  
other filters have a standard delivery delay of at least 2 weeks.
















# Polypropylene syringes



## Polypropylene syringe with luer slip & luer lock

(G899-PP\*/Z = with centric Luer-Slip)

	volume	with luer slip		with luer lock
	1 ml	G899-PP01	-	-
	3 ml	G899-PP03		G899-PP03/LL
	5 ml	G899-PP05 G899-PP05/Z		G899-PP05/LL
	10 ml	G899-PP10 G899-PP10/Z		G899-PP10/LL
	20 ml	G899-PP20		G899-PP20/LL
	30 ml	G899-PP30		G899-PP30/LL
	50 ml	G899-PP50		G899-PP50/LL

[www.chemoline.ch](http://www.chemoline.ch)

### Paper filters 3hw for the laboratory

(Product number: 50-1597)

made of high purity cellulose  
wet strength  
grade 3hw  
for medium to fast filtration  
height: 92.5 mm  
diameter: 185 mm



[www.chemoline.ch](http://www.chemoline.ch)

### The chemist's coffee maker

(Product number: 57-0023)

Chemistry lifestyle  
in the coffee kitchen:  
1 laboratory style coffeepot  
1 powder funnel made of glass  
10 laboratory style folded filters  
1 petrid dish  
2 laboratory style coffee mugs



## Monitoring and Safety by Migration Analytics

In the EU, the standards of the EU regulation 1935/2004 (Article 3)- apply for packaging that comes into direct contact with food. In Switzerland this provision corresponds with Article 49 LGV which says that:

Materials and articles must not transfer their constituents to food in quantities which could:

- endanger human health or
- bring about an unacceptable change in the composition of the food or
- bring about a deterioration in the organoleptic characteristics thereof

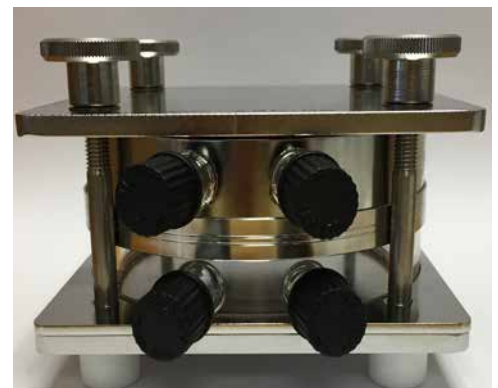
## Migration Cell System Sieg-Mi-Flex

The modular and flexibel migration cell system Sieg Mi Flex (EN standard 1186-1, EC-Regulation 1935/2004 as well as 10/2011 and 2016/1416) is used for the easy sample preparation for analytical or organoleptic migration testing from substance, "Extractables und Leachables" (E&L) and MOSH/MOAH in food simulants, or pharmaceutical formulations.

The Migration cell System-Siegwerk is available in different material:

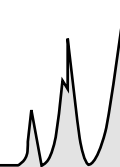
- Stainless steel (VA 1.4571)
- Borosilicate glass and
- PVA coated stainless steel (on request)

- the different material can be combined
- high temperature resistance (-15° to +180°C), pressure-tight up to 9 bar
- may be used for liquid food simulants and test conditions above the boiling point
- quick adaptation to sample areas of different sizes using reduction plates
- may be equipped with 2 packaging samples (top/bottom)
- with 1 test specimen stored lying horizontally; with 2 test specimens stored standing upright
- easily opened and closed thanks to stainless steel knurled nut
- Test setup in sandwich-format possible
- compact space-saving design, horizontal or vertical storage
- the advantage of a migration cell is that the one-sided contact can be simulated without the interference of a cut sample edge or other disturbing effects





# Migration-cells

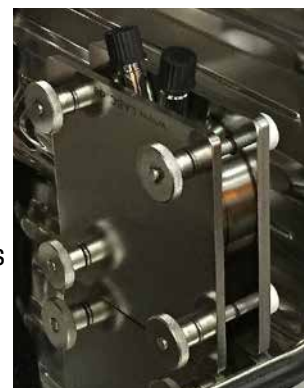


## Stainless steel migration cell Sieg-Mi-Flex

- ☛ temperature resistant from -15°C to +180°C
- ☛ pressure-tight up to 9 bar
- ☛ the best selling migration-cell

Stainless steel central ring consisting of:

- ☛ 1x stainless steel centring ring with cast-in and cast-out connecting pieces with GL14 threads
- ☛ 2x FEP/silicone O-rings that fit in the central ring's groove (top and bottom)
- ☛ 2x GL 14 seal caps (PPS housing incl. PTFE/silicone gasket)
- ☛ 1x positioning aid made from 2 mm stainless steel (except DN 120)



Stainless steel fixing plate set consisting of:

- ☛ 1x stainless steel upper plate with holes, polished inside, 140 x 140mm
- ☛ 1x stainless steel lower plate with threaded holes (M8), polished inside, 140 x 140mm
- ☛ 4x stainless steel threaded pins (M8) with knurled nut
- ☛ 4x stainless steel Sieg-Mi-Flex washers
- ☛ 4x PTFE feet, white

Suitable for simulants; A, B, C, D1, D2, Isooctan, Ethanol 95% and alternative simulants which do not chemically attack stainless steel (V4A 1.4571) PTFE / FEP

Stainless steel migration cell	Nominal size	Approx. contact area 1 test specimen / 2 test specimen	Fill volume with 2 test specimens	Product number
Stainless steel fixing plate set				8LZ250-0239899
Central ring	DN120	1.0 / 2.0 dm <sup>2</sup>	ca. 200 mL	8LZ250-0235693
Central ring	DN80	0.50 / 1.0 dm <sup>2</sup>	ca. 100 mL	8LZ250-0218672
6 additional central ring sizes available (on request)				

## Glass migration cell Sieg-Mi-Flex

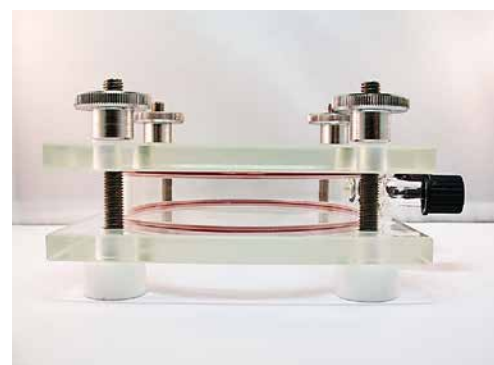
- ☛ temperature resistant from -15°C to +130°C
- ☛ pressure-tight up to 1 bar

Glass Central ring consisting of:

- ☛ 1x borosilicate glass central ring, with cast-in and cast-out fittings with GL14 threads
- ☛ 2x FEP/silicone O-rings that fit in the central ring's groove (top and bottom)
- ☛ 2x GL 14 seal caps (PPS housing incl. PTFE/silicone gasket)

Glass fixing plate set consisting of:

- ☛ 2x borosilicate glass plates with bore holes, protective inserts for screws
- ☛ 4x stainless steel screws (M8) with stainless steel knurled nut
- ☛ 4x PTFE-feet with threads, white (M8)



Glass migration cell	Nominal size	Approx. contact area 1 test specimen / 2 test specimen	Fill volume with 2 test specimens	Product number
Glass fixing plate set				8LZ250-0277594
Glass central ring	DN120	1.0 / 2.0 dm <sup>2</sup>	ca. 200 mL	8LZ250-0277600



## Combination of stainless steel migration cell Sieg-Mi-Flex with glass central ring

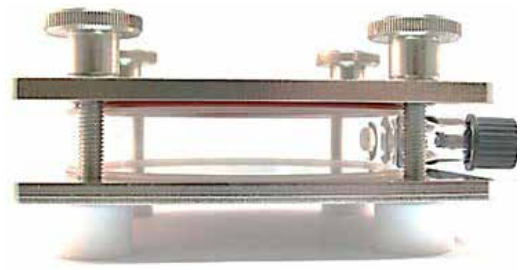
- ☛ temperature resistant from -15°C to +180°C
- ☛ pressure-tight up to 4 bar

### Glass central ring consisting of:

- ☛ 1x borosilicate glass central ring, with cast-in and cast-out fittings with GL14 threads
- ☛ 2x FEP/silicone O-rings that fit in the central ring's groove (top and bottom)
- ☛ 2x GL 14 seal caps (PPS housing incl. PTFE/silicone gasket)

### Stainless steel fixing plate set consisting of:

- ☛ 1x stainless steel upper plate with threaded holes, polished inside, 140 x 140mm
- ☛ 1x stainless steel lower plate, threaded bore hole (M8), polished inside, 140 x 140mm
- ☛ 4x stainless steel screws (M8) with knurled nut
- ☛ 4x stainless steel washers Sieg-Mi-Flex
- ☛ 4x PTFE-feet, white



Stainless steel migration cell and glass central ring	Nominal size	Approx. contact area 1 test specimen / 2 test specimen	Fill volume with 2 test specimens	Product number
Stainless steel fixing plate set				8LZ250-0239899
Central ring	DN120	1.0 / 2.0 dm <sup>2</sup>	ca. 200 mL	8LZ250-0277600

## Combination of glass migration cell Sieg-Mi-Flex with stainless steel central ring

- ☛ temperature resistant from -15°C to +180°C
- ☛ pressure tight up to 1 bar

### Stainless steel central ring consisting of:

- ☛ 1x Stainless steel central ring, with cast-in and cast-out fittings with GL14 threads
- ☛ 2x FEP/silicone O-rings that fit in the central ring's groove (top and bottom)
- ☛ 2x GL 14 seal caps (PPS housing incl. PTFE/silicone gasket)
- ☛ 1x positioning aid made from 2 mm stainless steel (except DN 120)

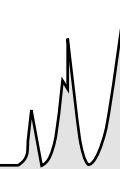


### Glass fixing plate set consisting of:

- ☛ 2x Borosilicate glass plates with bore holes, protective inserts for screws
- ☛ 4x Stainless steel screws (M8) with knurled nut
- ☛ 4x PTFE-feet with threads, white (M8)

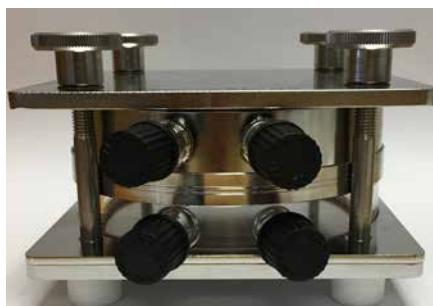
Glass migration cell and stainless steel central ring	Nominal size	Approx. contact area 1 test specimen / 2 test specimen	Fill volume with 2 test specimens	Product number
Glass fixing plate set				8LZ250-0277594
Central ring	DN120	1.0 / 2.0 dm <sup>2</sup>	ca. 200 mL	8LZ250-0235693
Central ring	DN80	0.50 / 1.0 dm <sup>2</sup>	ca. 100 mL	8LZ250-0218672
6 additional central ring sizes available (on request)				

**This is a summary of the migration cell assortment and its possibilities.  
For further information about migration cells please contact us.  
We will be happy to discuss the possibilities with you in your laboratory.**



## Sandwich arrangement without / with centring ring

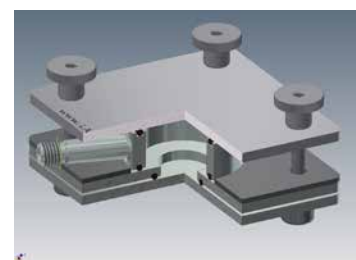
A sandwich arrangement (doubling the reaction chamber to achieve two high density reaction chambers) requires a second central ring and extension screws (grub screws). An optional centring ring and positioning aids are available.



Centring ring	Nominal size	Product number
Centring ring	DN120	8LZ250-0591782
Extension screws (required) 4 pcs. 109 mm		8LZ250-0584258

## Reduction plates

The Sieg-Mi-Flex migration cell system includes 8 standard central rings of various sizes. In practice there are test specimens which require a down-sizing of the central ring to match the test specimen precisely. A fast and cost-efficient solution offer the 3 different stainless steel reduction plates which are used with the larger central rings only. It is also possible to use two reduction plates together with a larger central ring.

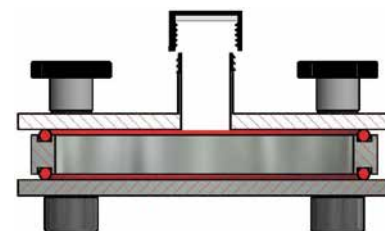


Reduction plates (RP)	Nominal size	Approx. contact area 1 test specimen + RP 2 test specimen + 2 RP	Fill volume with 2 test specimens + 2 reduction plates	Product number
Reduction plate (*only with central ring DN60)	DN50*	0.19 / 0.38 dm <sup>2</sup>	ca. 55 ml	8LZ250-0584210
FEP/silicone O-ring DN50	DN50			8LZ250-0584241
2 additional reduction plates sizes available (on request)				

## Tenax® / Oil-Kit

- ☛ temperature resistant from -15°C to +180°C
- ☛ pressure-tight up to 1 bar
- ☛ this cell design takes one test specimen (on bottom) and is set up horizontally

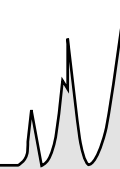
In addition to tests using Tenax®, the Tenax® / Oil-Kit is also used for migration tests with vegetable oil as it may be found it easier to clean the fixing plate with the GL45 fitting in the dishwasher than a central ring with GL14 cast-in and cast-out fittings.



Tenax® / Oil-Kit	Nominal size	Approx. contact area 1 test specimen	Fill volume max.	Product number
Borosilicatglass upper fixing plate with centric GL45 fitting				8LZ250-0649049
Stainless steel central ring	DN120	1 dm <sup>2</sup>	ca. 220 mL	8LZ250-0591775
Borosilicate glass central ring	DN120	1 dm <sup>2</sup>	ca. 220 mL	8LZ250-0649100
Srew cap GL45, PPS housing incl. PTFE/silicone gasket				8LZ120-0649056

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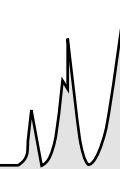


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
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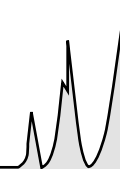
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