



# Experience Consistent Quality with KNAUER *originals* HPLC Consumables

Newest Range of Chromatography  
Consumables for Your Lab



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# Precision in preparation: the key to enhanced HPLC analysis

Save time and money by optimizing the HPLC/UHPLC analysis with straightforward sample and solvent preparation.

KNAUER Sepapure® Syringe and Membrane Disc Filters ensure that samples and solvents are particle-free to protect the column and HPLC components and avoid downtime.

KNAUER *originals* vials and caps protect your sample, avoiding degradation or solvent evaporation and improving injection reproducibility.



# Sample and mobile phase preparation

LH 8.1

**KNAUER**

## Follow this guide for best practice

The simple steps below are the best preventive procedures to protect your HPLC system and column for worry-free non-stop analyses.

**01 Sample Filtration:** Make sure the sample is clean and particle-free with Sepapure® Syringe Filters to avoid clogging the HPLC injection flow path or irreversibly damage the column.

**02 Mobile Phase Purity:** Utilize Sepapure® Membrane Filters and glass filtration systems to remove particles, extend the HPLC instrument's lifetime, and preserve the system's integrity for reproducible results.

**03 Vial Type:** Store and protect your sample with KNAUER *originals* glass vials; amber vials for light-sensitive samples, or clear glass to conveniently see your samples. Optimize the analysis of low-amount samples and ensure to inject until the last drop with micro inserts.

**04 Vial Closure:** Select vial caps and septa based on sample volatility and number of injections per vial.



**KNAUER *originals* chromatography consumables offer the best tools to integrate the sample and mobile phase preparation in your chromatography workflow**



Sample

AZURA® (U)HPLC System

Mobile phase





# Filter Selection Guide

Filtration of samples and solvents is the best preventive maintenance procedure to extend the lifetime of your HPLC/UHPLC system and increase analysis reproducibility.

KNAUER Sepapure® Syringe and Membrane Disc Filters remove particles and microorganisms from samples as well as from the mobile phase prior to entering the HPLC/UHPLC system. Available in a range of membrane types, pore sizes and dimensions to meet your application requirements.

**01**

**Filter Diameter:** select the filter diameter depending on the volume of eluent you want to filter

10 mL



13 mm

50 mL



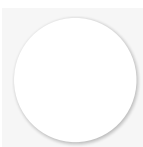
25 mm

100 mL



30 mm

> 100 mL



47 mm

**02**





**Filter pore size:** select the membrane pore size based on the particle size of the stationary phase and on your instrumentation, HPLC or UHPLC

Particle Size	Application	Pore Size of Filter
< 3 µm	UHPLC & MS	0.22 µm
> 3 µm	Routine analyses	0.45 µm

# 03

## Membrane Material: Select the membrane material based on the solvent type and the application

Define Solvent				
Aqueous Solutions		Aqueous and Organic Solutions		Organic Solutions
Define Application				
Sensitive biological samples, buffers, protein analysis	Tissue culture, proteins, and nucleic acids filtration, ion chromatography, pH 1-14, high-temperature liquids	General purpose laboratory filtration for most HPLC samples and solvents, pH 3-12	Versatile for aqueous and aggressive organic solvent-based solutions, alkali filtration	Filtration of aggressive organic, highly basic, or hot solutions, to which other filter types are not resistant.
Select Filter				
CA - Cellulose Acetate	PES - Polyethersulfone	Nylon	hPTFE - hydrophilic Polytetrafluoroethylene	PTFE - Polytetrafluoroethylene

Solvent	CA	PES	Nylon	hPTFE	PTFE
Water	+	+	+	+	-
Acetonitrile	-	+	+	+	+
Methanol, 98%	-	+	+	+	+
Ethanol, 98%	+	+	+	+	+
Isopropanol	+	+	+	+	+
THF	-	-	+	+	+
DMSO	-	-	+	+	+
Chloroform	-	-	+	+	+

+ compatible; - Incompatible (not recommended) For further information visit: [store.knauer.net](http://store.knauer.net)

# 04

## Filter Unit: Opt for glass filter units for mobile phase filtration or reusable syringe filter holder as an eco-conscious syringe filter alternative.



Reusable syringe filter holder



Glass vacuum filter unit



# Laboratory Filtration

## Sepapure® Syringe Filters

Streamline your workflow with Sepapure® Syringe Filters: intuitively color-coded for quick selection, ensuring optimal throughput and minimal sample loss. Achieve unmatched precision and purity in every filtration.

- **Color-coded and labeled:** Easy identification of membrane and filter type. Each unit is clearly marked with an identifying code to denote pore size and membrane material
- **Bonded outer ring on housing:** Durability under higher working pressures (> 87 psi or 6 bar)
- **Built-in prefilter:** Polypropylen prefilter
- **Specifically designed to maximize sample recovery:** Minimal sample hold-up volume
- **Broad compatibility:** Many types of applications and membranes

Sample volume	Diameter [mm]	Pore size [µm]	Membrane material	Housing material	Solvent compatibility	Units per package	Article number
< 10 mL	13	0.22	Nylon	Polypropylen	aqueous and organic	500	A09000
< 10 mL	13	0.45	Nylon	Polypropylen	aqueous and organic	500	A09001
< 50 mL	25	0.22	Nylon	Polypropylen	aqueous and organic	100	A09002
< 50 mL	25	0.45	Nylon	Polypropylen	aqueous and organic	100	A09003
< 50 mL	25	0.45	hPTFE	Polypropylen	aqueous and organic	100	A09013
< 50 mL	25	0.45	CA	Polypropylen	aqueous	100	A09033
< 50 mL	25	0.45	PTFE	Polypropylen	organic	100	A09043
< 100 mL	30	0.22	Nylon	Polypropylen	aqueous and organic	100	A09004
< 100 mL	30	0.45	Nylon	Polypropylen	aqueous and organic	100	A09005

## Sepapure® Membrane Disc Filters

Enhance your filtration process with Sepapure® Membrane Disc Filters, which offer a variety of materials for efficient separation and clear results. Perfect for complex tasks, ensuring purity and reliability.



Diameter [mm]	Pore size [µm]	Membrane material	Solvent compatibility	Units per package	Article number
13	0.22	Nylon	aqueous and organic	100	A09100
13	0.45	Nylon	aqueous and organic	100	A09101
25	0.22	Nylon	aqueous and organic	100	A09102
25	0.45	Nylon	aqueous and organic	100	A09103
25	0.22	hPTFE	aqueous and organic	100	A09112
25	0.45	hPTFE	aqueous and organic	100	A09113
25	0.22	CA	aqueous	100	A09132
25	0.45	CA	aqueous	100	A09133
25	0.22	PTFE	organic	100	A09142
25	0.45	PTFE	organic	100	A09143
25	0.22	PES	aqueous	100	A09152
25	0.45	PES	aqueous	100	A09153
47	0.22	Nylon	aqueous and organic	100	A09104
47	0.45	Nylon	aqueous and organic	100	A09105



## Filter Units

Upgrade your filtration efficiency with our top-tier glass filter units and reusable filter holders, perfectly compatible with our superior membrane disc filters. Durable, eco-conscious choice.

Filter Unit Type	Product	Article number
Glass Vacuum Filter Unit	Set, 1000 mL, Ground Glass Joint	A09200
	Set, 2000 mL, Ground Glass Joint	A09201
	Collection Flask, 1000 mL, Ground Glass Joint	A09202
	Collection Flask, 2000 mL, Ground Glass Joint	A09203
	Set, 1000 mL, Rubber Joint	A09210
	Set, 2000 mL, Rubber Joint	A09211
	Collection Flask, 1000 mL, Rubber Joint	A09212
	Collection Flask, 2000 mL, Rubber Joint	A09213
Reusable syringe filter holder	Polypropylen, 13 mm	A09220
	Polypropylen, 25 mm	A09221
	Polypropylen, 47 mm	A09222





# Sample Vials - User guide

Selecting the right sample vials is essential for accurate HPLC/UHPLC analyses. KNAUER *originals* vials, designed to prevent contamination and evaporation, offer customizable options to meet your needs.

Choose from different glass colors, closure types, and pre-slit septa in caps, with the option for micro-inserts. Our selection guide helps you find the ideal vial configuration, enhancing your chromatography results.

## 01 Glass Color



**Clear Glass:** Ideal for the majority of compounds, providing maximum visibility to monitor the sample's condition. Choose clear glass for routine applications where light sensitivity is not a concern.



**Amber Glass:** Provides protection against UV light for light-sensitive substances, such as vitamins, steroids, and other pharmaceuticals. Select amber glass to prolong the shelf life of light-sensitive samples.



## 02

### Closure Type



**Screw Neck:** Offers a secure sealing option, ideal for volatile samples and long-term storage. Screw caps provide excellent resealability and are suitable for repetitive access.



**Crimp Neck:** Provides the tightest seal, recommended for highly volatile samples and when sample integrity is critical. This option is best for single-time use or long-term storage.



**Snap Ring:** Allows for easy manual application and removal without special tools. Opt for snap rings for short-term storage and frequent sample retrieval.

## 03

### Septum Type



**Pre-slit Septum:** Designed to prevent vacuum formation inside the vial, facilitating easier needle penetration and reducing the risk of septum coring. Ideal for automated sampling to ensure consistent sample integrity.



**Non-slit Septum:** Offers a tighter seal, suitable for storage and applications where minimizing evaporation is crucial. Best for manual sampling where precise control over needle penetration is needed.

## 04

### (Optional) Small Volumes: $\mu$ -Inserts



**Micro Inserts:** Enable small volume sampling, reducing the required sample quantity and minimizing waste. Essential for valuable or scarce samples, allowing for maximum recovery.



# Sample Vials

Enhance lab precision with our LC sample vials, offering accuracy and seamless system integration. With exceptional chemical resistance and leak-proof caps, they're available in various materials and closure types - screw neck, crimp neck, snap ring, pre-slit or not - to meet specific needs, ensuring sample integrity and lab efficiency.

## Vials

Explore our sample vials, available in amber or clear glass, with versatile closure options: screw neck, crimp neck, and snap ring for secure sealing.



Glass material	Closure type	Nominal Diameter*	Volume [mL]	Units per package	Article number
Clear	Screw Neck	ND 9	1.5	100	A09302
Clear	Crimp Neck	ND 11	1.5	100	A09322
Clear	Snap Ring	ND 11	1.5	100	A09342
Amber	Screw Neck	ND 9	1.5	100	A09300
Amber	Crimp Neck	ND 11	1.5	100	A09320
Amber	Snap Ring	ND 11	1.5	100	A09340

\*Nominal Diameter (ND) is the outer diameter of the vial in mm.

## Caps

Choose our versatile caps for sample vials, available for screw neck, crimp neck, and snap ring closures, with options for pre-slit or solid designs for optimal sealing.



Closure type	Septum	Pre-slit	Cap material	Units per package	Article number
Screw Neck	PTFE/Silicone	No	Blue Polypropylen	100	A09304
Screw Neck	PTFE/Silicone	Yes	Blue Polypropylen	100	A09305
Crimp Neck	PTFE/Silicone	No	Aluminum	100	A09324
Crimp Neck	PTFE/Silicone	Yes	Aluminum	100	A09325
Snap Ring	PTFE/Silicone	No	Clear Polypropylen	100	A09344
Snap Ring	PTFE/Silicone	Yes	Clear Polypropylen	100	A09345



## μ-Inserts

Maximize small sample analysis with our micro inserts. Designed for minimal volume loss, ensuring precision and efficiency in your lab's testing and research needs.

Volume [μL]	Bottom	Units per package	Article number
250	Conic with plastic spring	100	A09360
300	Conic	100	A09361
400	Flat	100	A09362

## Accessories

Maximize lab efficiency: Premium crimping pliers ensure secure, leak-proof vial sealing for sample integrity in critical applications. Trust in precision and durability.



Product	Units per package	Article number
Manual Crimper Pliers	1	A09339

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and use exclusive online resources.



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