

## Agilent InfinityLab Solvent Filtration Assembly and Spare Parts



Mobile phase filtration is a simple and economical way to extend the lifetime of HPLC instrument supplies. It reduces instrument downtimes and helps to maintain the precision of the HPLC system. The negative effects of improper filtration practices are often underestimated, and can impact almost every part of the flowpath.






Most HPLC supplies maintenance tasks such as replacing pump seals are considered mandatory procedures, but mobile phase and sample filtration are often forgotten. The use of Ultrapure prefiltered organic HPLC solvents renders the filtration process not required. However, using water-based buffer solutions, predominant with Biopharma applications, makes it mandatory to filter the mobile phases. Residue of undissolved salt crystals can lead to reduced pump seal lifetimes, and microbial growth can cause increased baselines and capillary and column clogging. Therefore, filtering mobile phase buffers should be done daily through a 0.2  $\mu\text{m}$  filter, and should be considered a routine part of sample analysis.

The Agilent InfinityLab solvent filtration assembly is manufactured from high-quality borosilicate glass components, and can hold a 47 mm membrane filter to remove particulates from liquid media.

The Agilent InfinityLab solvent filtration assembly is an optimal tool to generate suitable solvents for your HPLC applications.

## Specifications

- 100% borosilicate glass with fritted glass filter base and integrated vacuum connector
- Anodized aluminum spring clamp
- Compatible with Agilent 47 mm filter membranes
- Effective filtration area: 9.6 cm<sup>2</sup>
- Funnel capacity: 250 mL
- Flask capacity: 1 L (2 L optional)

Description		Part Number
InfinityLab solvent filtration assembly (includes 250 mL funnel, membrane holder base, 1 L flask, and aluminum clamp)		5191-6776
InfinityLab solvent filtration 250 mL glass funnel		5191-6777
InfinityLab solvent filtration membrane filter holder glass base		5191-6778
InfinityLab solvent filtration anodized aluminum clamp		5191-6779
InfinityLab solvent filtration 1,000 mL glass flask		5191-6780
InfinityLab solvent filtration 2,000 mL glass flask (optional)		5191-6781

## Compatible Agilent 47 mm solvent filtration membranes

### Regenerated cellulose (RC)

- Hydrophilic membrane for general solvent filtration purposes. pH resistance 3 to 12.
- Ideal membrane for HPLC mobile phase filtration
- Nonsterile

Available in two sizes

Description	Part Number
Regenerated cellulose filter membrane, 47 mm diameter, 0.45 µm pore size, 100/pk	5191-4337
Regenerated cellulose filter membrane, 47 mm diameter, 0.20 µm pore size, 100/pk	5191-4340

### Nylon (polyamide)

- Hydrophilic membrane suitable for particle removal of alkaline solutions and organic solvents
- Nonsterile

Available in two sizes

Description	Part Number
Nylon filter membrane, 47 mm diameter, 0.45 µm pore size, 100/pk	5191-4338
Nylon filter membrane, 47 mm diameter, 0.20 µm pore size, 100/pk	5191-4341

### PTFE (polytetrafluorethylene)

- Hydrophobic membrane with excellent chemical resistance and pH compatibility of pH 1 to 14
- Membrane needs to get prewetted with alcohols before filtering aqueous solutions.
- Nonsterile

Available in two sizes

Description	Part Number
PTFE filter membrane, 47 mm diameter, 0.45 µm pore size, 100/pk	5191-4336
PTFE filter membrane, 47 mm diameter, 0.20 µm pore size, 100/pk	5191-4339

## Results on chemical compatibility

Solvents	Regenerated Cellulose (RC)	PTFE	Nylon (Polyamide)
Acetone	•	•	—
Acetonitrile	•	•	—
Gasoline	•	•	•
Benzene	•	•	•
Benzyl alcohol	•	•	•
<i>n</i> -Butyl acetate	•	•	•
<i>n</i> -Butanol	•	•	•
Cellosolve	•	•	?
Chloroform	•	•	•
Cyclohexane	•	•	?
Cyclohexanone	•	•	•
Diethylacetamide	•	•	•
Diethyl ether	•	•	•
Dimethylformamide	o	•	o
Dimethyl sulfoxide	•	•	•
Dioxane	•	•	•
Ethanol, 98%	•	•	•
Ethyl acetate	•	•	•
Ethylene glycol	•	•	?
Formamide	?	•	?
Glycerin	•	•	•
<i>n</i> -Heptane	•	•	?
<i>n</i> -Hexane	•	•	•
Isobutanol	•	•	•
Isopropanol	•	•	•
Isopropyl acetate	•	•	?
Methanol, 98%	•	•	?
Methyl acetate	•	•	•
Methylene chloride	•	•	•
Methyl ethyl ketone	•	•	•
Methyl isobutyl ketone	•	•	•
Monochlorobenzene	•	•	•
Nitrobenzene	•	•	•
<i>n</i> -Pentane	•	•	•

- = compatible
- o = limited compatibility
- = not compatible
- ? = not tested

Solvents	Regenerated Cellulose (RC)	PTFE	Nylon (Polyamide)
Perchloroethylene	•	•	•
Pyridine	•	•	•
Carbon tetrachloride	•	•	•
Tetrahydrofuran	•	•	•
Toluene	•	•	•
Trichloroethane	•	•	?
Trichloroethylene	•	•	•
Xylene	•	•	•
<b>Acids</b>			
Acetic acid, 25%	•	•	o
Acetic acid, 96%	•	•	—
Hydrofluoric acid, 25%	o	•	—
Hydrofluoric acid, 50%	—	•	—
Perchloric acid, 25%	o	•	—
Phosphoric acid, 25%	o	•	—
Phosphoric acid, 85%	o	•	—
Nitric acid, 25%	—	•	—
Nitric acid, 65%	—	•	—
Hydrochloric acid, 25%	—	•	—
Hydrochloric acid, 37%	—	•	—
Sulfuric acid, 25%	o	•	—
Sulfuric acid, 98%	—	•	—
Trichloroacetic acid, 25%	•	•	—
<b>Bases</b>			
Ammonium, 1N	o	•	•
Ammonium hydroxide, 25%	—	o	•
Potassium hydroxide, 32%	o	•	o
Sodium hydroxide, 32%	o	•	o
Sodium, 1N	o	•	•
<b>Aqueous Solutions</b>			
Formalin, 30%	o	•	o
Sodium hypochlorite, 5%	•	•	o
Hydrogen peroxide, 35%	o	•	o

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This information is subject to change without notice.