

# Syringe Filter Chemical Compatibility

CHEMICAL	NYLON	PTFE	PVDF	PES	CA	RC	PP	GF
<b>Acids</b>								
Acetic, Glacial	LC	C	C	C	IC	C	C	C
Acetic, 25%	C	C	C	C	LC	C	C	C
Hydrochloric, Concentrated	LC	C	C	C	IC	IC	C	C
Hydrochloric, 25%	LC	C	C	C	IC	IC	C	C
Sulfuric, Concentrated	LC	C	IC	IC	IC	IC	C	C
Sulfuric, 25%	LC	C	C	C	IC	LC	C	C
Nitric, Concentrated	LC	C	C	IC	IC	IC	C	LC
Nitric, 25%	LC	C	C	C	IC	IC	C	LC
Phosphoric, 25%	LC	C	ND	ND	C	LC	C	ND
Formic, 25%	LC	C	ND	ND	IC	C	C	C
Trichloroacetic, 10%	LC	C	ND	ND	C	C	C	ND
<b>Bases</b>								
Ammonium Hydroxide, 25%	C	C	LC	C	C	LC	C	C
Sodium Hydroxide, 3 Normal	C	C	C	C	IC	LC	C	IC
<b>Alcohols</b>								
Amyl Alcohol (Butanol)	C	C	C	C	C	C	C	C
Benzyl Alcohol	C	C	C	ND	LC	C	C	IC
Butyl Alcohol	C	C	C	C	C	C	C	C
Ethanol, 70%	LC	C	C	C	C	C	C	C
Ethanol, 98%	C	C	C	C	C	C	C	C
Ethylene Glycol	C	C	C	C	C	C	C	C
Glycerine (Glycerol)	C	C	C	C	C	C	C	C
Isopropanol	C	C	C	C	C	C	C	C
Methanol, 98%	C	C	C	C	C	C	C	C
n-Propanol	C	C	C	C	C	C	C	C
Propylene Glycol	C	C	C	C	IC	C	C	C
<b>Esters</b>								
Ethyl Acetate/Methyl Acetate	C	C	C	IC	IC	C	LC	C
Amyl Propyl/Butyle Acetate	C	C	IC	IC	LC	C	LC	C
Propyl Acetate	C	C	IC	IC	LC	C	LC	ND
Propylene Glycol Acetate	ND	C	ND	IC	IC	C	C	ND
2-Ethoxyethyl Acetate	ND	C	ND	IC	LC	C	ND	ND
Methyl Cellosolve Acetate	ND	C	ND	IC	IC	C	C	C
Benzyl Benzoate	C	C	ND	IC	C	C	ND	ND
Isopropyl Myristate	C	C	ND	IC	C	C	ND	ND
Tricresyl Phosphate	ND	C	ND	IC	C	C	ND	ND
<b>Organic Oxides</b>								
Ethyl Ether	C	C	C	C	C	C	LC	ND
Dioxane/Tetrahydrofuran	C	C	LC	IC	IC	C	C	C
Triethanolamine	C	C	ND	ND	C	C	ND	ND
Dimethylsulfoxide (DMSO)	C	C	IC	IC	IC	C	C	C
Isopropyl Ether	ND	C	C	C	C	C	C	ND
<b>Amines and Amides</b>								
Dimethyl Formamide	LC	C	IC	IC	IC	LC	C	C
Diethylacetamide	C	C	ND	ND	IC	C	ND	C
Triethanolamine	C	C	ND	ND	C	C	ND	ND
Aniline	ND	C	ND	ND	IC	C	ND	ND
Pyridine	C	C	IC	IC	IC	C	IC	C
Acetonitrile	C	C	C	LC	IC	C	C	C
<b>Halogenated Hydrocarbons</b>								
Methylene Chloride	LC	C	C	IC	IC	C	LC	C
Chloroform	C	C	C	IC	IC	C	LC	C
Trichloroethylene	C	C	C	IC	C	C	C	C
Monochlorobenzene, Freon	C	C	C	LC	C	C	C	C
Carbon Tetrachloride	C	C	C	IC	LC	C	LC	C
<b>Hydrocarbons</b>								
Hexane, Xylene	C	C	C	IC	C	C	IC	C
Toulene, Benzene	C	C	C	IC	C	C	IC	C
Kerosene, Gasoline	C	C	C	LC	C	C	LC	ND
Tetralin, Decalin	ND	C	C	ND	C	C	ND	ND
<b>Ketones</b>								
Acetone	C	C	IC	IC	IC	C	C	C
Cyclohexanone	C	C	IC	IC	IC	C	C	C
Methyl Ethyl Ketone	C	C	LC	IC	LC	C	C	C
Isopropylacetone	C	C	IC	IC	C	C	ND	C
Methyl Isobutyl Ketone	ND	C	LC	IC	ND	C	LC	C
<b>Miscellaneous</b>								
Phenol Aqueous, 10%	ND	C	LC	IC	IC	IC	C	C
Formaldehyde Aqueous, 30%	C	C	C	C	C	LC	C	C
Hydrogen Peroxide, 30%	C	C	ND	ND	C	C	ND	ND
Silicone Oil & Mineral Oil	ND	C	C	C	C	C	C	C

- ◆ Use the information in this table to determine the ability of a specific syringe filter membrane to withstand exposure to a solvent.
- ◆ All concentrations are 100% unless noted.

## LEGEND

**C** = Compatible

**LC** = Limited Compatibility (Membrane may swell and shrink)

**IC** = Incompatible (Not Recommended)

**ND** = No Compatibility Data Currently Available

## Ion Chromatography (IC) Syringe Filters

**PES Syringe Filters** are suitable for the sample preparation of ion chromatography.

**PES Syringe Filters** are available in two pore sizes (0.22 µm & 0.45 µm) and two diameters (13mm & 25mm).

### Choose a filter or membrane based on:

1. Chemical compatibility of the membrane and housing with your sample matrix
2. Size and amount of particulates in the sample
3. Potential interactions (binding) between the membrane and sample components
4. Special considerations such as requirement for prefilter or inorganic ion certification

## Syringe Filter Housings

- ◆ Syringe filter housings are manufactured from solvent-resistant, low-extractable polypropylene resins specifically selected for wide compatibility with common HPLC sample matrices.
- ◆ Solutions at temperatures up to 100°C can be filtered using syringe filters.
- ◆ Syringe filters can be sterilized by autoclave at 125°C for 15 minutes.
- ◆ The inlet connection is an enhanced female Luer-Lok fitting designed for extra security when attached to a Luer-Lok syringe.
- ◆ The outlet fitting is a standard size male Luer-slip fitting for ease of filtrate collection.