

TECHNICAL INFORMATION

OMICRON CHEMICAL COMPATIBILITY CHART - MEMBRANE FILTER

Chart below shows the Chemical Compatibility of various types of membrane filters with some commonly used chemicals. All types of membrane filter products were exposed to specified chemicals/reagents for 3 days at 25⁰C. Upshot: All products retain its Integrity after Chemical compatibility Test.

C = Compatibility N = Not Compatibility

L = Limited Compatibility - = No Data Available

MEMBRANE FILTER CHEMICAL COMPATIBILITY CHART

CHEMICAL	NYLO N	PTF E	PVD F	POLYSULFO NE	CELLULO SE ACETATE	POLYPROPYLE NE	CELLULO SE NITRATE	REGENERAT ED CELLULOSE
Acids								
Acetic,10%	C	C	C	C	C	C	C	C
Boric, 5%	L	C	C	C	C	C	C	C
Hydrochloric, 25%	L	C	C	C	N	C	N	C
Hydrochloric, Conc.	N	L	L	C	N	L	N	L
Sulfuric, 25%	N	C	C	C	N	C	C	C
Sulfuric, Concentrated	N	N	L	N	N	C	N	L
Nitric, 25%	N	L	L	L	L	C	C	C
Nitric, Concentrated	N	L	L	N	N	L	N	N
Phosphoric, 25%	N	C	-	C	N	-	L	C
Bases								
Potassium hydroxide,6N	C	C	-	C	N	-	N	-
Sodium Hydroxide,3N	C	C	C	C	N	C	N	-
Ammonium Hydroxide,25 %	C	C	L	C	-	C	N	-
Alcohols								

Amyl Alcohol	C	C	C	C	N	C	-	C
Benzyl Alcohol	L	C	C	N	L	C	L	C
Butyl Alcohol	C	C	-	C	C	-	-	C
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Ethanol, 70%	C	C	C	C	N	C	N	C
Ethanol, 98%	C	C	C	L	N	C	N	C
Ethylene Glycol	C	C	C	C	C	C	-	C
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Glycerol	L	C	-	C	C	-	L	C
Isopropanol	C	C	C	C	C	C	L	C
Methanol, 98%	C	C	C	C	C	C	N	C
<hr/>								
n-Propanol	C	C	C	C	C	C	-	C
Propylene Glycol	C	C	C	C	L	C	-	C
<hr/>								
Hydrocarbons								
Benzene	C	C	C	N	C	N	C	C
Hexane,Xylene	C	C	C	N	C	L	C	C
Kerosene, Gasoline	C	C	C	L	C	L	-	C
<hr/>								
Tetralin, Decalin	C	C	C	N	C	L	-	-
Toluene	C	C	C	N	C	L	C	C
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Halogenated Hydrocarbons								
Carbon Tetrachloride	C	C	C	N	L	L	C	C
Chlorobenzene (Mono)	C	C	C	L	C	C	-	C
Chloroform	L	C	C	N	N	L	N	C
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Freon	C	C	C	L	C	C	-	C
Methylene Chloride	L	C	C	N	N	L	-	C
Trichloroethane	C	C	C	N	L	L	L	C
Trichloroethylene	C	C	C	N	C	L	L	C
<hr/>								
Ketones								
Acetone	C	C	N	N	N	C	N	C
Cyclohexanone	C	C	N	N	N	C	C	C
<hr/>								
Isopropylacetone	C	C	N	N	C	-	N	-
Methyl Ethyl Ketone	C	C	L	N	L	C	-	C
Methyl	C	C	N	N	C	L	-	C

**Isobutyl
Ketone
(MIBK)**

Esters									
2-Ethoxyethyl Acetate	L	L	L	N	L	-	-	C	
Amyl Acetate	C	C	C	N	L	L	N	C	
Benzyl Benzoate	C	C	-	N	C	-	N	C	
Butyl Acetate	C	C	C	N	L	L	-	C	
Ethyl Acetate	C	C	C	N	N	L	-	C	
Isopropyl Myristate	C	C	-	N	C	-	-	C	
Methyl Acetate	L	C	L	N	N	L	-	C	
Propyl Acetate	L	N	C	N	N	L	-	C	
Propylene Glycol Acetate	L	C	-	N	N	C	-	C	
Methyl Cellosolve Acetate	C	C	C	N	N	C	-	C	
Tricresyl Phosphate	-	C	-	N	C	-	-	C	
Oxides –Ethers									
Acetonitrile (Methyl Cyanide)	C	C	C	N	N	C	N	C	
Aniline	L	C	C	N	N	L	-	C	
Diethyl Acetamide	C	C	C	-	N	-	-	C	
Dimethyl Formamide	C	C	N	N	N	C	N	L	
Dimethyl Sulfoxide(DM SO)	C	C	C	N	N	C	N	L	
Dioxane	C	C	L	N	N	C	-	L	
Ethyl Ether	C	C	C	C	L	L	-	C	
Isopropyl Ether	C	C	N	C	C	C	-	-	
Pyridine	C	C	L	N	N	L	-	C	
Solvents with Nitrogen									
Tetrahydrofuran	C	C	L	N	N	C	-	L	
Triethanolamine	C	C	C	-	C	-	-	C	
Miscellaneous									
Formaldehyde Solution, 30%	C	C	C	C	L	C	-	L	
Hydrogen Peroxide, 30%	N	C	C	C	C	C	-	C	

Phenol, Aqueous, 10%	N	C	L	N	N	C	-	C
Silicone Oil & Mineral Oil	C	C	C	C	C	C	-	C

OMICRON SYRINGE FILTER CHEMICAL COMPATIBILITY CHART

Chart below shows the Chemical Compatibility of various types of syringe filters with some commonly used chemicals. All types of membrane filter products were exposed to specified chemicals/reagents for 3 days at 25°C. Upshot: All products retain its Integrity after Chemical compatibility Test.

O = Recommended x = Not Recommended

*= Limited Resistance - = No Data Available

SYRINGE FILTER CHEMICAL COMPATIBILITY CHART

CHEMICAL	Cellulose acetate with PP housing	Hydrophilic PVDF with PP housing	Hydrophobic PTFE with PP housing	Nylon with PP housing	PES with PP housing
Acids					
3 kmol/m³ Hydrochloric acid (10%, 3N)	*	o	o	*	o
9 kmol/m³ Hydrochloric acid (30%, 9N)	x	o	o	x	o
1 kmol/m³ Sulfuric acid (5%, 2N)	o	o	o	o	x
4 kmol/m³ Sulfuric acid (20%, 8N)	x	o	o	x	x
1 kmol/m³ Nitric acid (5%, 1N)	*	o	o	*	x
5 kmol/m³ Nitric acid (20%, 5N)	x	*	*	x	x
20% Acetic acid	o	o	o	o	o
Glacial acetic acid	x	o	o	x	o
10% Hydrofluoric acid	x	o	o	x	x
35% Hydrofluoric acid	x	o	o	x	*
10% Chromic acid	*	*	*		*
10% Phosphoric acid	o	o	o	*	*
ALKALIS					
2.5 kmol/m³ Sodium hydroxide (10%, 2.5N)	x	o	o	x	o
2 kmol/m³ Potassium hydroxide (10%, 2N)	x	o	o	o	o

hydroxide (10%, 2N)					
8 kmol/m ³ Aqueous ammonia (28%, 8N)	*	0	0	0	0
Alcohols					
Methyl alcohol	0	0	0	0	0
Ethyl alcohol	0	0	0	0	0
n-Propyl alcohol	0	0	0	0	0
Isopropyl alcohol	0	0	0	0	0
n-Butyl alcohol	0	0	0	0	X
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Amyl alcohol	0	0	0	0	X
Benzyl alcohol	X	0	0	0	X
Ethylene glycol	0	0	0	0	0
Glycerol	0	0	0	0	0
ETHERS					
Ethyl ether	*	*	*	0	0
Isopropyl ether	0	0	0	-	0
Tetrahydrofuran(THF)	X	*	*	*	0
Dioxane	X	*	*	0	-
ESTERS					
Methyl acetate	X	*	*	0	0
Ethyl acetate	X	*	*	-	0
Butyl acetate	X	*	*	X	0
Amyl acetate	*	*	*	-	0
KETONES					
Acetone	X	0	0	0	0
Methyl ethyl ketone (MEK)	X	*	*	0	0
Methyl isobutyl ketone (MIBK)	X	*	*	0	0
<hr/>					
Cyclohexanone	X	*	*	0	0
HYDROCARBONS					
Benzene	*	*	*	*	0
Toluene	*	*	*	*	0
<hr/>					
Xylene	*	*	*	*	0
n-Hexane	*	*	*	0	0
Gasoline	0	0	0	0	-
Kerosene	*	*	*	0	0
HALOGENATED HYDROCARBONS					
Chloroform		*	*	*	
Methylene chloride		*	*	*	
Trichloroethylene	*	*	*		
Carbon tetrachloride	*				
<hr/>					
Trichloroethane		*	*		
Perchloroethylene		*	*		

AMINES**Freon(TMC)**

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*

Aniline

*

*

*

Diethyl Formamide

*

*

Diethylacetamide

*

*

Triethanolamine**MISCELLANEOUS****Ethyl acetate cellosolve**

*

*

*

Acetonitrile

*

*

*

Pyridine

*

*

Sodium Hypochloride**35% Formaldehyde**

*

Iron (II) chloride**Coppersulfate****Mineroloil**

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*

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Saltwater**10% Hydrogen peroxide****Nitrobenzene**

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*

Phenol**Siliconeoil****Petroleumoil****Acetonitrile (70): water
(30)**