

## Key to the Symbols:

Recommendations are based on a 24-hour static exposure to the test fluid at room temperature.

- **Recommended:**  
No change in either water flow rate or bubble point will be observed.
- ▼ **Limited resistance:**  
Additional in-house testing is advised as swelling, discoloration or other minor changes may occur.
- ✘ **Not recommended:**  
Significant changes in water flow rate and/or bubble point can be expected.
- ✦ **Data not available.**

## Membrane Filters

CHEMICAL	Polymer / Product							
	MCE	CA	PCTE	PTFE	Sup-ported PTFE	Hydro-philic PTFE	Coated CA	
<b>Acid</b>	Glacial Acetic acid	✘	✘	✘	●	●	●	✘
	10% Acetic acid	●	●	●	●	●	●	●
	12 kmol/m <sup>3</sup> Hydrochloric acid (37%, 12N)	✘	✘	●	●	●	●	✘
	6 kmol/m <sup>3</sup> Hydrochloric acid (19%, 6N)	▼	✘	●	●	●	●	✘
	12 kmol/m <sup>3</sup> Nitric acid (53%, 12N)	✘	✘	●	●	●	▼	✘
	6 kmol/m <sup>3</sup> Nitric acid (26%, 6N)	▼	✘	●	●	●	●	✘
	18 kmol/m <sup>3</sup> Sulfuric acid (96%, 36N)	✘	✘	✘	●	●	✘	✘
	3 kmol/m <sup>3</sup> Sulfuric acid (16%, 6N)	▼	✘	●	●	●	●	✘
	85% Phosphoric acid	●	✘	✘	●	●	●	✘
	5% Boric acid	●	●	●	●	●	●	●
	50% Formic acid	▼	▼	●	●	●	●	▼
	35% Hydrofluoric acid	✘	✘	●	●	●	●	✘
	60% Perchloric acid	●	✘	✘	●	●	●	✘
	<b>Alkalis</b>	6 kmol/m <sup>3</sup> Sodium hydroxide (26%, 6N)	✘	✘	✘	●	●	●
6 kmol/m <sup>3</sup> Potassium hydroxide (20%, 6N)		✘	✘	✘	●	●	●	✘
6 kmol/m <sup>3</sup> Aqueous ammonia (11%, 6N)		✘	✘	✘	●	●	●	✘
<b>Alcohol</b>	Methyl alcohol	✘	●	●	●	●	●	●
	Ethyl alcohol	✘	●	●	●	●	●	●
	Isopropyl alcohol	▼	●	●	●	●	●	●
	Isobutyl alcohol	▼	●	●	●	●	●	●
	Butyl alcohol	●	●	●	●	●	●	●
	Glycerol	●	●	●	●	●	●	●
	Amyl alcohol	▼	●	●	●	●	●	●
	Benzyl alcohol	▼	✘	✘	●	●	●	✘
Ethylene glycol	✘	●	●	●	●	●	●	

To be continued next page

## Membrane Filters (Continued)

CHEMICAL	Polymer / Product						
	MCE	CA	PCTE	PTFE	Sup-ported PTFE	Hydro-philic PTFE	Coated CA
<b>Ethers</b>	Ethyl ether	▼	●	●	●	▼	●
	Isopropyl ether	●	●	●	●	●	●
	Tetrahydrofuran	✗	✗	✗	●	✗	●
	Dioxane	✗	✗	✗	●	●	●
	Petroleum ether	●	●	●	●	●	●
<b>Esters</b>	Methyl acetate	✗	✗	✗	●	●	✗
	Butyl acetate	✗	✗	●	●	●	✗
	Amyl acetate	✗	▼	●	●	●	▼
<b>Ketones</b>	Acetone	✗	✗	✗	●	●	✗
	Methylethyl ketone	✗	✗	✗	●	●	✗
	Methyl isobutyl ketone	✗	✗	✗	●	●	✗
	Cyclohexanone	✗	✗	✗	●	●	✗
<b>Hydrocarbons</b>	Benzene	●	●	✗	●	●	●
	Toluene	●	●	✗	●	●	●
	Xylene	●	●	●	●	●	●
	Hexane	●	●	●	●	●	●
	Gasoline	●	●	●	●	▼	●
	Kerosene	●	●	●	●	●	●
<b>Halogenated hydrocarbons</b>	Chloroform	●	✗	✗	●	▼	✗
	Methylene chloride	✗	✗	✗	●	▼	✗
	Trichloroethylene	●	●	✗	●	●	●
	Tetrachloroethylene	●	●	●	●	●	●
	Carbon tetrachloride	●	●	✗	●	▼	●
<b>Amines</b>	Aniline	✗	✗	✗	●	●	✗
	Dimethyl formamide	✗	✗	✗	●	▼	✗
	Diethyl acetamide	✗	✗	✗	●	●	✗
	Triethanolamine	✗	●	✗	●	●	●
<b>Miscellaneous</b>	Methyl cellosolve	✗	✗	✗	●	●	✗
	Butyl cellosolve	✗	●	✗	●	●	●
	Nitrogen	●	●	●	●	●	●
	Hydrogen	●	●	●	●	●	●
	Oxygen	●	●	●	●	●	●
	30% Hydrogen peroxide	✗	●	●	●	●	●
	Saline solution	●	●	●	●	●	●
	Dimethylsulfoxide	✗	✗	✗	●	●	✗
	Nitrobenzene	✗	✗	✗	●	●	✗
	Methanol (1): Chloroform (1)	▼	✗	✗	●	●	✗
	Pyridine	✗	✗	✗	●	●	✗
	Acetonitrile	✗	✗	✗	●	●	✗
	Phenol	●	✗	✗	●	●	✗
	Freon	●	●	●	●	●	●
	37% Formaldehyde	▼	▼	●	●	●	▼
	Silicone oil	●	✗	●	●	●	●
	n-Hexane (95): Ethyl acetate (5)	✗	●	●	●	●	●
Nitric acid (70): Distilled water (30)	✗	✗	✗	●	●	✗	
Petroleum oil	●	●	●	●	●	●	

## Disposable Syringe Filter Units

CHEMICAL		AS	CS	CP	HP	JP	
		Mixed Cellulose Esters with acrylic housing	Cellulose Acetate with acrylic housing	Cellulose Acetate with PP housing	Hydrophilic PTFE with PP housing	Hydrophobic PTFE with PP housing	
<b>Acids</b>	3 kmol/m <sup>3</sup> Hydrochloric acid (10%, 3N)	●	▼	▼	●	●	
	9 kmol/m <sup>3</sup> Hydrochloric acid (30%, 9N)	✘	✘	✘	●	●	
	1 kmol/m <sup>3</sup> Sulfuric acid (5%, 2N)	●	●	●	●	●	
	4 kmol/m <sup>3</sup> Sulfuric acid (20%, 8N)	✘	✘	✘	●	●	
	1 kmol/m <sup>3</sup> Nitric acid (5%, 1N)	●	●	▼	●	●	
	5 kmol/m <sup>3</sup> Nitric acid (20%, 5N)	✘	✘	✘	▼	▼	
	20% Acetic acid	●	●	●	●	●	
	Glacial acetic acid	✘	✘	✘	●	●	
	10% Hydrofluoric acid	✘	✘	✘	●	●	
	35% Hydrofluoric acid	✘	✘	✘	●	●	
	10% Chromic acid	▼	▼	▼	▼	▼	
	10% Phosphoric acid	●	●	●	●	●	
	<b>Alkalis</b>	2.5 kmol/m <sup>3</sup> Sodium hydroxide (10%, 2.5N)	✘	✘	✘	●	●
		2 kmol/m <sup>3</sup> Potassium hydroxide (10%, 2N)	✘	✘	✘	●	●
8 kmol/m <sup>3</sup> Aqueous ammonia (28%, 8N)		✘	●	▼	●	●	
<b>Alcohols</b>	Methyl alcohol	✘	✘	●	●	●	
	Ethyl alcohol	✘	▼	●	●	●	
	n-Propyl alcohol	▼	●	●	●	●	
	Isopropyl alcohol	▼	●	●	●	●	
	n-Butyl alcohol	▼	●	●	●	●	
	Amyl alcohol	▼	●	●	●	●	
	Benzyl alcohol	▼	✘	✘	●	●	
	Ethylene glycol	✘	✘	●	●	●	
	Glycerol	●	●	●	●	●	
	<b>Ethers</b>	Ethyl ether	✘	✘	▼	▼	▼
Isopropyl ether		✘	✘	●	●	●	
Tetrahydrofuran (THF)		✘	✘	✘	▼	▼	
Dioxane		✘	✘	✘	▼	▼	
<b>Esters</b>	Methyl acetate	✘	✘	✘	▼	▼	
	Ethyl acetate	✘	✘	✘	▼	▼	
	Butyl acetate	✘	✘	✘	▼	▼	
	Amyl acetate	✘	✘	▼	▼	▼	
<b>Ketones</b>	Acetone	✘	✘	✘	●	●	
	Methyl ethyl ketone (MEK)	✘	✘	✘	▼	▼	
	Methyl isobutyl ketone (MIBK)	✘	✘	✘	▼	▼	
	Cyclohexanone	✘	✘	✘	▼	▼	
<b>Hydro-carbons</b>	Benzene	✘	✘	▼	▼	▼	
	Toluene	✘	✘	▼	▼	▼	
	Xylene	✘	✘	▼	▼	▼	
	n-Hexane	✘	✘	▼	▼	▼	
	Gasoline	▼	▼	●	●	●	
Kerosene	●	●	▼	▼	▼		

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## Disposable Syringe Filter Units (Continued)

CHEMICAL		AS	CS	CP	HP	JP
		Mixed Cellulose Esters with acrylic housing	Cellulose Acetate with acrylic housing	Cellulose Acetate with PP housing	Hydrophilic PTFE with PP housing	Hydrophobic PTFE with PP housing
<b>Halogenated hydrocarbons</b>	Chloroform	×	×	×	▼	▼
	Methylene chloride	×	×	×	▼	▼
	Trichloroethylene	×	×	▼	▼	▼
	Carbon tetrachloride	×	×	▼	●	●
	Trichloroethane	×	×	×	▼	▼
	Perchloroethylene	×	×	×	▼	▼
<b>Amines</b>	Freon (TMC)	×	×	▼	▼	▼
	Aniline	×	×	×	▼	▼
	Dimethyl formamide	×	×	×	▼	▼
	Diethylacetamide	×	×	×	▼	▼
	Triethanolamine	×	●	●	●	●
<b>Misc.</b>	Ethyl acetate cellosolve	×	×	×	▼	▼
	Acetonitrile	×	×	×	▼	▼
	Pyridine	×	×	×	▼	▼
	Sodium Hypochloride	×	×	×	●	●
	35% Formaldehyde	×	▼	▼	●	●
	Iron (II) chloride	●	●	●	●	●
	Copper sulfate	●	●	●	●	●
	Mineral oil	▼	●	▼	▼	▼
	Salt water	●	●	●	●	●
	10% Hydrogen peroxide	×	▼	●	●	●
	Nitrobenzene	×	×	×	▼	▼
	Phenol	×	×	×	●	●
	Silicone oil	×	×	×	●	●
	Petroleum oil	▼	▼	●	●	●
	Acetonitrile (70): water (30)	×	×	×	●	●

## Capsule Filters

CHEMICAL	CCS	CCF/CCFH	CCP	CCG
<b>Acids</b>				
5% Acetic acid	●	●	●	●
20% Acedic acid	●	●	●	▼
10% Chromic acid	✦	▼	▼	✖
3 kmol/m <sup>3</sup> Hydrochloric acid (10%, 3N)	●	●	●	●
11 kmol/m <sup>3</sup> Hydrochloric acid (35%, 11N)	●	●	●	▼
10% Hydrofluoric acid	✦	●	●	✖
1 kmol/m <sup>3</sup> Nitric acid (5%, 1N)	✦	●	●	▼
4 kmol/m <sup>3</sup> Nitric acid (20%, 4N)	✦	▼	▼	✖
10% Phosphoric acid	✦	●	●	●
1 kmol/m <sup>3</sup> Sulfuric acid (5%, 2N)	●	●	●	●
4 kmol/m <sup>3</sup> Sulfuric acid (20%, 8N)	●	●	●	▼
<b>Alkalis</b>				
2.5 kmol/m <sup>3</sup> Sodium hydroxide (10%, 3N)	●	●	●	▼
2 kmol/m <sup>3</sup> Potassium hydroxide (10%, 2N)	●	●	●	▼
5 kmol/m <sup>3</sup> Aqueous ammonia (10%. 5N)	●	●	●	▼
15 kmol/m <sup>3</sup> Aqueous ammonia (28%. 15N)	●	●	●	▼
<b>Alcohols</b>				
Methyl alcohol	●	●	●	▼
Ethyl alcohol	●	●	●	▼
n-Propyl alcohol	●	●	●	▼
n-Butyl alcohol	●	●	●	▼
Ethylene glycol	●	●	●	●
<b>Ethers</b>				
Ethyl ether	▼	▼	▼	✖
Dioxane	▼	▼	▼	✖
Tetrahydrofuran (THF)	✖	▼	▼	✖
<b>Esters</b>				
Amyl acetate	✦	▼	▼	✦
Methyl acetate	✦	▼	▼	▼
Ethyl acetate	✖	▼	▼	▼
Butyl acetate	✦	▼	▼	▼
<b>Ketones</b>				
Acetone	✖	▼	▼	✖
Methyl ethyl ketone (MEK)	✖	▼	▼	✖
Methyl isobutyl ketone (MIBK)	✖	▼	▼	✖
<b>Hydro-carbons</b>				
n-Hexane	▼	▼	▼	▼
Cyclohexane	▼	▼	▼	▼
Benzene	▼	▼	▼	▼
Toluene	✖	▼	▼	✖
Xylene	✦	▼	▼	▼
Chloroform	✖	▼	▼	✖
<b>Halogenated hydrocarbons</b>				
Carbon tetrachloride	✦	▼	▼	▼
Freon (TMC)	✖	▼	▼	✖
Methylene chloride	✖	▼	▼	✖
Trichloroethylene	✦	▼	▼	✖
Trichloroethane	✦	▼	▼	▼
<b>Amines</b>				
Dimethyl formamide	✖	▼	▼	✖
<b>Aldehydes</b>				
Acetaldehyde	✦	✦	✦	✦
35% Formaldehyde	●	●	●	●
<b>Misc.</b>				
Acetic cellosolve	✦	▼	▼	▼
Acetonitrile	✦	▼	▼	✦
Pyridine	✦	▼	▼	✖
Nitrobenzene	✦	✦	✦	✦
6% Sodium hypochlorite	✦	●	●	●
Ferrous chloride	●	●	●	●
Copper Sulfate	●	●	●	●
Mineral oil	▼	▼	▼	▼
Salt water	●	●	●	●
10% Hydrogen peroxide	●	●	●	▼