

3M Purification Inc.

Chemical Compatibility Guide—February 2011



Innovative Filtration

Quality. Performance. Service.

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Legend	System			Lenticular		Cartridge Filters ¹						O-rings/Support Rings				
	Zeta Plus™ Encapsulated System: Standard Capsules	Zeta Plus™ Encapsulated System: Alkaline Resistant Capsules—Pre-Use	Zeta Plus™ Encapsulated System: Alkaline Resistant Capsules—Post-Use	Zeta Plus™ Filter	Zeta Plus™ Activated Carbon Filter	Betafine™ D/Betafine™ XL	PolyPro™ XL/Betapure™ NTP	LifeASSURE™ SA/SP/ST Series	LifeASSURE™ BLA Series	LifeASSURE™ PFS Series	LifeASSURE™ PDA Series	Fluorocarbon	PTFE Encapsulated Fluorocarbon	Silicone	EPR	316 Stainless Steel
R = Recommended N = Not Recommended LR = Limited Recommendation* Blank = No data available																
Acetaldehyde	N			R	R	R	R	R	R	R	N	N	R	R	R	R
Acetic Acid (10%)	LR	LR	LR	LR	LR	R	R	N	N	R	R	LR	R	LR	R	R
Acetic Acid, Glacial	N	N	LR	N	N	R	R	N	N	R	R	N	R	LR	LR	R
Acetic Anhydride	N	N	N	N	N	LR	LR	R	R	R		N	R	LR	LR	R
Acetone	N	N	N	LR	LR	R	R	R	R	R	N	N	R	N	R	R
Ammonia	N	N	LR	N	N	R	R	R	R	R		N	R	LR	R	R
Ammonium Hydroxide (Conc.)	N	LR	R	LR	LR	R	R	R	R	R	R	LR	R	R	R	R
Benzaldehyde	N	N	N	LR	LR	LR	LR	N	R	R	R	N	R	N	R	LR
Benzene	N	N	N	N	N	N	N	N	N	N	N	R	R	N	N	LR
Butyl Acetate	N	N	N	R	R	LR	LR	R	R	R	LR	N	R	N	LR	R
Carbon Tetrachloride	N	N	N	LR	LR	N	N	LR	LR	R	N	R	R	N	N	R
Chlorine, Anhydrous Liquid	N	N	N	N	N	N	N	N	N	N	N	R	R	N	LR	LR
Chloroform	N	N	N	LR	LR	LR	LR	LR	LR	LR	N	R	R	N	N	R
Citric Acid	LR	LR	R	LR	LR	R	R	R	R	R	R	R	R	R	R	R
Cyclohexane	N	N	N	LR	LR	LR	LR	LR	LR	LR	LR	R	R	N	LR	R
Cyclohexanone	N	N	N	LR	LR	LR	LR	LR	LR	N	N	N	R	N	LR	R
Diethylamine	N					R	R	R	R	R	R	N	N	LR	LR	R
Ethanol		LR	LR	R	R	R	R	R	R	R	R	N	R	LR	R	R
Ethyl Acetate	N	N	N	R	R	LR	LR	R	R	R	N	N	R	LR	LR	R
Ethylene Glycol	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Ethylene Oxide	N	N	N	LR	LR	LR	LR	LR	LR	LR	LR	N	R	N	N	R
Formaldehyde—40%	LR	LR	LR	LR	LR	R	R	R	R	R	R	N	R	LR	R	R
Glycerol	R	LR	LR	R	R	R	R	R	R	R	R	R	R	R	R	R
Heptane	N	N	N	N	N	N	N	N	N	N	N	R	R	N	N	R
Hexane	N	N	N	LR	LR	LR	LR	LR	LR	LR	LR	R	R	N	N	R
Hydrobromic Acid—20%	N	N	N	N	N	LR	LR	N	N	LR		R	R	N	R	N
Hydrochloric Acid—20%	N	N	N	N	N	LR	LR	N	N	R	R	R	R	N	R	N
Hydrofluoric Acid—20%	N	N	N	N	N	LR	LR	N	N	R	LR	R	R	N	N	N
Hydrogen Peroxide—30%	N	N	LR	N	N	R	R	N	N	R	R	R	R	LR	N	R
Hydrogen Sulfide (Aqua)	N	N	N	R	R	R	R	N	N	R	LR	N	R	N	R	R
Isopropyl Alcohol	R	R	R	R	R	R	R	LR	LR	R	R	R	R	R	R	R
Maleic Acid		LR	LR	LR	LR	R	R	LR	LR	R		R	R	LR	N	R
Methanol	R	R	R	R	R	R	R	R	R	R	R	N	R	R	R	R
Methyl Chloride	N	N	N	LR	LR	N	N	LR	LR	LR	N	R	R	N	N	R

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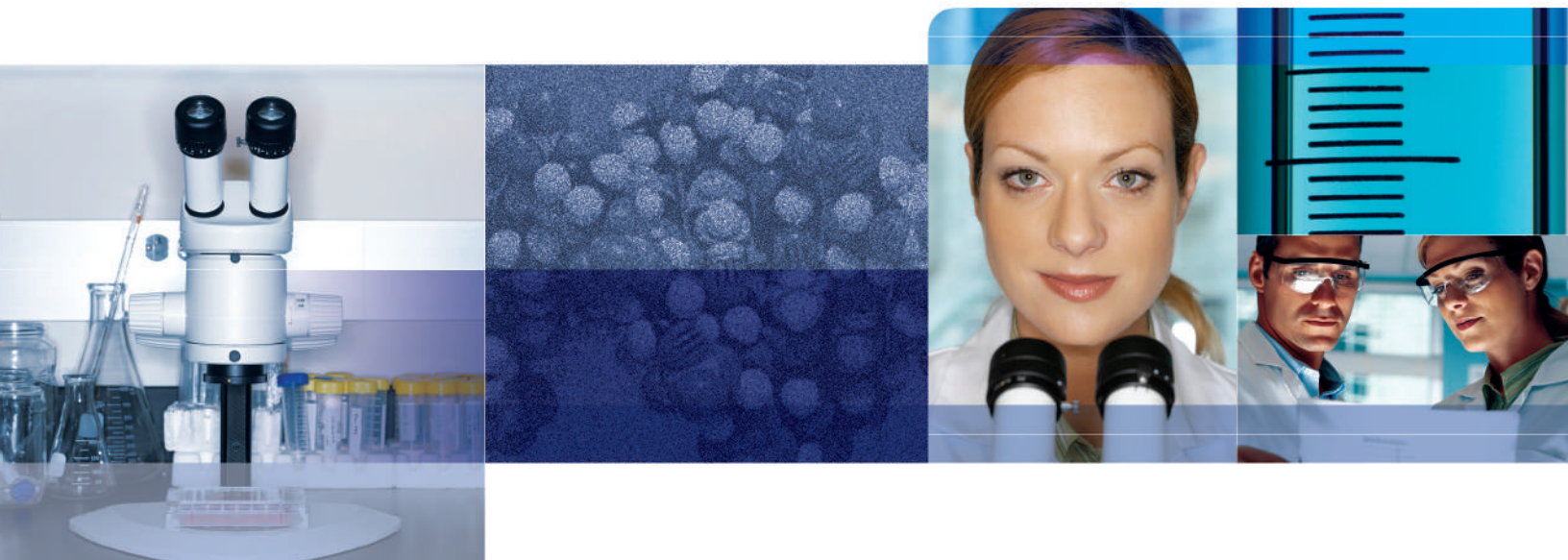
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Methyl Ethyl Ketone (MEK)	N	N	N	LR	LR	LR	LR	LR	LR	LR	N	N	R	N	R	R
Methylene Chloride	N	N	N	LR	LR	N	N	N	N	R	LR	LR	R	N	N	R
Nitric Acid—20%	N	N	N	N	N	R	R	N	N	R	R	R	R	N	LR	R
Nitric Acid—50%	N	N	N	N	N	LR	LR	N	N	N	N	R	R	N	N	R
Nitric Acid (Conc.)	N	N	N	N	N	N	N	N	N	N	N	R	R	N	N	R
Pentane	N	N	N	LR	LR	LR	LR	LR	LR	LR		R	R	N	N	LR
Perchloroethylene	N	N	N	LR	LR	N	N	LR	LR	R	N	R	R	N	N	R
Phosphoric Acid > 40%	N	N	N	N	N	LR	LR	LR	LR	R	LR	R	R	N	LR	N
Potassium Hydroxide	N	N	N	N	N	R	R	LR	LR	R	N	LR	R	N	R	R
Propylene Glycol				R	R	R	R	R	R	R	R	R	R	R	R	R
Sodium Hydroxide, 20%	N	LR	R	LR	LR	R	R	LR	LR	R	R	LR	R	R	LR	LR
Sodium Hydroxide, 50%	N	LR	R	N	N	R	R	LR	LR	R	R	N	R	R	LR	LR
Sodium Hypochlorite—5%	N	N	LR	N	N	R	R	N	N	R	R	R	R	LR	LR	N
Sulfuric Acid—5%	LR	LR	LR	LR	LR	R	R	N	N	R	R	R	R	LR	R	LR
Sulfuric Acid—10%	N	N	N	N	N	R	R	N	N	R	R	R	R	N	LR	N
Sulfuric Acid—20%	N	N	N	N	N	R	R	N	N	R	R	R	R	N	LR	N
Sulfuric Acid—50%	N	N	N	N	N	R	R	N	N	R	R	R	R	N	LR	N
Sulfuric Acid—80%	N	N	N	N	N	LR	LR	N	N	LR	R	R	R	N	LR	N
Tetrachloroethylene	N	N	N	LR	LR	N	N	LR	LR	R		R	R	N	N	R
Tetrahydrofuran, THF	N	N	N	LR	LR	LR	LR	R	R	R	N	N	R	N	N	R
Toluene	N	N	N	LR	LR	N	N	LR	LR	LR	N	LR	R	N	N	R
Trichloroethane	N	N	N	LR	LR	N	N	LR	LR	LR	LR	R	R	N	N	R
Trichloroethylene	N	N	N	LR	LR	N	N	N	N	R	N	R	R	N	N	R
Xylene	N	N	N	LR	LR	N	N	LR	LR	LR	LR	R	R	N	N	R

* LR: Please verify compatibility with fluid prior to use.

¹ Note: When using a filter cartridge which contains a stainless steel reinforcing ring, consult chemical compatibility of stainless steel.

Compatibility recommendations are given at room or ambient temperature conditions.

This listing is intended as a guide for selecting the appropriate 3M Purification Inc. filter based on compatibility with most common chemicals used in pharmaceutical manufacturing. This information is based on technical publications, laboratory experiments, data from material suppliers and field tests. 3M Purification Inc. recommends that compatibility be established by the customer in their specific application because actual performance may differ as a result of variations in temperature, concentration, exposure time, or other factors. Consideration must also be given in selecting a suitable O-ring material to ensure compatibility.



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