

Chemical Resistance Guide

Concentration of the chemicals listed in the tables are assumed to be those that are typically used in industrial applications unless otherwise indicated. Concentration percentages are weight percentages. When a maximum temperature is shown it indicates the highest temperature for which data is available.

Recommended operating temperatures relate only to the chemical compatibility at these temperatures. Mechanical considerations must also be taken into account.

Chemical resistance data was obtained from numerous sources in

the industry. It should be noted that the 'R' rating does not mean or imply that material will necessarily perform within original specifications. The chemical resistance guide should be used for guidance only and not as a guarantee of chemical compatibility. We do not assume any liability for the accuracy or completeness of information. The use contemplated by any user and the manner of use is the sole responsibility of the user. It is recommended that the users should perform their own tests to determine final suitability.

Key	
R	Recommended for most conditions up to the maximum operating temperature
Number (i.e. 93)	Recommended only to this indicated temperature (°C.)
TR	Fair, may be acceptable, but testing is recommended
NR	Not recommended
Blank	No data available

Summary		
Abbreviation	Generic Name	Maximum Operating Temperature (°C.)
PP	Polypropylene	100
P.E.T.	Polyester	150
Nylon	Polyamide	125
Cotton	Cellulose	130
Steel	Carbon Steel	200
304 SS	304 Stainless Steel	200
316 SS	316 Stainless Steel	200

Chemical	PP	P.E.T.	Nylon	Cotton	Steel	304 SS	316 SS
Acetaldehyde	R	R	R	NR	TR	R	R
Acetaldehyde in Water	R	R	NR	NR			
Acetamide	50	NR	R	NR	TR		
Acetic Acid 5%	R	93	93	R	NR	R	R
Acetic Acid 10% to 50%	R	R	40	NR	NR	TR	R
Acetic Acid 50% to 95%	R	R	NR	NR	NR	R	R
Acetic Acid 100%	66	93	21	NR	TR	TR	R
Acetic Acid Glacial	R	R	NR	NR			
Acetic Anhydride	R	NR		NR	NR	R	R
Acetone	27	25	20	R	R	R	R
Acetophenone	NR	NR	R	NR	93	TR	R
Acetyl Chloride	NR	TR	NR	NR	NR	R	R
Acetylene	R	65	R	R	R	R	R
Acrolein	40	40	NR				
Acrylic Acid	66	21	NR	NR	R		R
Acrylonitrile	R	21	21	R	NR	R	R
Adipic Acid	R		NR	NR	R	R	R
Air-Compressed	R	R	R	R	R	R	R
Allyl Alcohol	60		25	R	R	R	R
Alum	R	65	NR				R
Alum Chrome	R		NR				
Alum Potassium	R		NR				
Aluminum Acetate	21			R	R	R	R
Aluminum Ammonium Sulfate	R			NR			

Chemical	PP	P.E.T.	Nylon	Cotton	Steel	304 SS	316 SS
Aluminum Chloride	R	75	NR	NR		TR	R
Aluminum Chloride 5%	93	21	21	NR	NR	R	R
Aluminum Fluoride	R		25	NR			
Aluminum Fluoride 5%	21			NR	NR	TR	TR
Aluminum Hydroxide	21	R	R	R	R	R	R
Aluminum Nitrate	R			NR	NR	TR	R
Aluminum Potassium Sulfate	R		NR	NR			
Aluminum Sulfate	82	21	21	NR	R	R	R
Amino Acids				R	NR	R	R
Ammonia Gas (Dry)	R	66	35	NR	R	R	R
Ammonia, Anhydrous	R		25	NR		R	R
Ammonium Bicarbonate	R			NR	TR	R	R
Ammonium Bifluoride	R			NR			
Ammonium Bromide 10%	R	R	NR	NR	TR		
Ammonium Carbonate	R	R	NR	NR	TR	R	R
Ammonium Chloride	R	75	NR	NR	TR	R	R
Ammonium Hydroxide 25%	R	R	R	NR		R	R
Ammonium Hydroxide 30%	R	21	38	R	R	R	R
Ammonium Hydroxide, Saturated	R	R	R	NR			R
Ammonium Nitrate	R	60	95	NR	TR	R	R
Ammonium Nitrate 5%	R	21	NR	NR	TR	R	R
Ammonium Persulfate	R	80	NR	NR		R	R
Ammonium Phosphate	R	NR		NR	NR	R	R
Ammonium Sulfate	R	75	NR	NR	TR	R	R

Chemical

	PP	P.E.T.	Nylon	Cotton	Steel	304 SS	316 SS
Ammonium Sulfate 5%	77	21		NR	TR	R	R
Ammonium Sulfide	R			NR	TR		
Ammonium Sulfite	R	R	25	NR	TR		
Ammonium Thiocyanate	60	21	21	R	TR	R	R
Ammonium Thiosulfate	65		NR	R			R
Amyl Acetate	NR	R	21	R	R	R	R
Amyl Alcohol	65	21	21	R	TR	R	R
Amyl Chloride	NR		NR	NR	TR	R	R
Aniline	82	65	21	R	TR	R	R
Antimony Trichloride	R	R	NR	NR			
Aqua Regia	24	TR	NR	NR	NR	NR	NR
Arsenic Acid	TR		NR	NR	NR	R	R
Asphalt	60			R	R	R	R
Aviation Fuel	40	40	R	R	R	R	R
Banana Oil	TR	21	21	NR	R	R	R
Barium Carbonate	21	R	R	R	TR	TR	R
Barium Chloride	R	R	R	NR	TR		
Barium Hydroxide	R	NR	25	NR			
Barium Sulfate	R	NR	25	NR			
Barium Sulfide	R		25	R			
Beer	R			R	NR	R	R
Beet Sugar Liquors	R	R	NR	R	R	R	R
Benzaldehyde	25	NR	65	R	TR		R
Benzaldehyde in Water	R	R	R	R			R
Benzene	NR	R	R	R	R	R	R
Benzene Sulfonic Acid	R	R	NR	NR			
Benzoic Acid	80	R	25	NR	TR	R	R
Benzoyl Chloride	25	25	NR	NR			
Benzyl Acetate	R	R	R	NR	TR		
Benzyl Alcohol	65	25	95	R	TR	R	R
Benzyl Chloride	NR	R	R	NR	TR	R	R
Bismuth Acetate	R	R	R	R			
Bismuth Subcarbonate	R	R	R	R			
Boric Acid	R	95	NR	R	TR		TR
Brine	R						R
Bromic Acid	60			NR	NR		
Bromine (Dry)	NR	NR	NR	R	NR	NR	NR
Bromine (Wet)	NR	NR	NR	R	NR	NR	R
Bromine Water, Saturated	20	NR	100	R			
Bromine, liquid	NR	25	NR	R			
Bromobenzene	25	R	R	R	TR		
Butane	21	121	R	R	R	R	R
Butanoic Acid	R		R	NR		R	R
Butric Acid	80	R	NR	NR	NR		
Butyl Acetate	93	NR	R	NR	TR	R	R
Butyl Alcohol	65	38	R	R	R	R	R
Butyl Cellosolve	21			NR		R	R
Butyl Chloride				NR	R	R	R
Butyl Phthalate	80		R	R	TR		

Chemical

	PP	P.E.T.	Nylon	Cotton	Steel	304 SS	316 SS
Butylene	R		21	NR	R		R
Butyric Acid	R	NR	NR		NR	R	R
Cadmium Chloride	R	R	R	NR	NR		
Calcium Acetate	R	R	25	NR			
Calcium Bisulfite	95	NR	65	NR			
Calcium Carbonate	R	R	R	R	TR	R	R
Calcium Chlorate	R				TR		R
Calcium Chloride	R	R	R	NR	R	TR	TR
Calcium Hydroxide	R	NR	65	NR			R
Calcium Hydroxide 5%	R	38	R	NR	TR	R	R
Calcium Hypochlorite	R	R	TR	NR	NR	TR	R
Calcium Hypochlorite, Saturated	R	R	NR	NR			
Calcium Nitrate	R	75	NR		TR		
Calcium Oxalate	R	R	NR		TR		
Calcium Oxide	R	20	25		R		
Calcium Sulfate	R	R	25	R	TR	R	R
Cane Sugar Liquors	R		R	R	R	R	R
Caprylic Acid	60	R	R	NR			
Carbolic Acid (Phenol)	R	NR	NR	NR	TR	R	R
Carbon Bisulfide (disulfide)	NR	20	25			R	TR
Carbon Dioxide (Dry)	R	R	38	R	R	R	R
Carbon Disulfide	NR	21	21	R	TR	TR	R
Carbon Tetrachloride	NR	R	R	R	R	R	R
Carbonated Water	R		38	R	TR	R	R
Carbonic Acid	R	38	38	R	TR	R	R
Castor Oil	R			R	R	R	R
Caustic Potash	R		R	NR		R	R
Caustic Soda	R		R	NR	38	R	R
Cellosolve	R	NR		R	38		38
Cetyl Alcohol	R	R	R	R			
Chloracetic Acid	21	NR	NR	NR	TR	R	R
Chlorine Gas (Dry)	NR		NR	NR	21	R	R
Chlorine Gas (Wet)	NR	20	NR	NR	NR	NR	TR
Chlorine Liquid	NR		NR			TR	
Chlorine Water, Saturated	R	20	NR				
Chlorobenzene	TR	93	93	R	TR	R	R
Chloroform	NR	R	50	R	R	R	R
Chloroform (Dry)	21	21	R	NR	TR	R	R
Chlorosulfonic Acid	NR	NR	NR	NR			
Chlorox Bleach sol. 5.5% Chlorine	80		NR	R			
Chocolate Syrup	R						R
Chromic Acid	27	TR	NR		R	TR	R
Chromic Acid 10%	R	R	NR				
Chromic Acid 50%	65	R	NR			TR	
Chromic Chloride	R	25	NR		NR		
Chromium Trioxide	40	NR	NR				
Chromyl Chloride	60				R		
Cider	R				NR	R	R
Cinnomylic Acid	40	R	R	NR			

Chemical

	PP	P.E.T.	Nylon	Cotton	Steel	304 SS	316 SS
Citric Acid	R	R	R	NR	NR	R	R
Cod Liver Oil	NR			NR	TR		
Coffee Extract	NR			NR	NR	R	R
Cola Syrup	21	21	21	NR		R	R
Copper Sulfate	R	21	NR	NR	NR	R	R
Corn Oil	38		R	R	R	R	R
Cottonseed Oil	38	R	R	R	R	R	R
Creosol	R	NR	NR	R	NR		R
Creosote	NR				R	R	R
Cresylic Acid	TR	R	NR	NR		TR	R
Crude Oil	60	75	65	R			R
Cupric Fluoride	R			NR			
Cupric Sulfate	R	95	NR	NR			
Curpic Carbonate	R	R	R				
Curpic Chloride	R	R	NR				
Curpic Cyanide	R	R	20				
Cyclohexamine	NR	93	R		21		21
Cyclohexan	NR	NR	R	R			
Cyclohexane	NR	93		R	R	R	R
Cyclohexanol	66			R	R		
Cyclohexanone	40	R	R	R			
Cyclopentanone	NR	R	R	R			
Cymene	25	R	R				
DDT Solution	TR					TR	TR
Detergents	R	60	40	R		R	R
Dextrose	R			R	R	R	R
Diacetin (Glycerol Acetate)	R	R	R				
Diacetone Alcohol	21			R	R	R	R
Diallyl Phthalate	NR	R	R	NR			
Dibenzylamine	NR	R	R	NR			
Dibenzylketone	R	R	R	R			
Dibromobenzene	40	R	R				
Dibutyl Phthalate	21			NR	R	R	R
Dibutylamine	40	R	R	NR			
Dichloroacetic Acid	40	40	NR	NR			
Dichlorobenzene	60	R	R	NR			
Dichloroethane	NR					R	R
Dichloroethylene	21		21	R	R		
Diesel Fuel	49		R	R	R	R	R
Diethanolamine	R	R	R	R	R		
Diethylamine	40		R		TR	R	
Diethylene Glycol	R	R	R	R	R	R	R
Dimethyl Formamide	93	93	93	NR		21	21
Dimethyl Phthalate	60	R	25				
Dimethylaniline	70		R				
Dimethylformamide	93	20	R				
Dinitrobenzene	20	R	R				
Diocetylphthalate	NR	20	60	21			
Dioxane	60	20	R			R	R

Chemical

	PP	P.E.T.	Nylon	Cotton	Steel	304 SS	316 SS
Diphenyl Oxide	21			R	R	R	R
Diphenylacetic Acid	R	R	25				
Diphenylamine	NR	R	R				
Disodium Phosphate	95			R			
Dowtherm	21				R	R	R
Epichlorohydrin	49	R	R	R			R
Ethanol	R	R	R	R	R	R	R
Ethanolamine	21				R	R	R
Ether	TR	35	R	R	R	R	R
Ethyl Acetate	60	R	R	R	R	R	R
Ethyl Alcohol	R	R	R	R		R	R
Ethyl Cellulose	21			NR	R	R	R
Ethyl Chloride (Dry)	NR			R	93	R	R
Ethyl Chloroacetate	25	R	20	R			
Ethyl Ether	25	R	20	R	TR		
Ethyl Phenylacetate	R	R	R	NR			
Ethyl Propionate	25	R	R				
Ethylbenzene	NR	R	R	R	R		
Ethylbenzoate	R	R	25	NR			
Ethylcarbamate (urethane)	40	R	R				
Ethylcarbonate	R	R	R				
Ethylchloride	R	R	R		R		
Ethylene Bromide	NR	R	R		TR		
Ethylene Chloride	NR	NR	R		R	R	R
Ethylene Chlorohydrin	95		NR		R		
Ethylene Diamine	21		21	NR	21	R	21
Ethylene Dichloride	NR	NR	20				R
Ethylene Glycol	R	R	21	R	R	R	R
Ethylene Oxide	NR			R	R	R	R
Fatty Acids	R	R	NR	R	NR	TR	R
Ferric Ammonium Sulfate	R	R	NR	NR			
Ferric Chloride	R	93	NR	NR	NR	TR	NR
Ferric Chloride 1%	R	93	NR	NR	NR	TR	NR
Ferric Chloride, 50% Water	R		NR		TR		
Ferric Hydroxide				R			
Ferric Nitrate	R	21	NR	NR	NR	R	R
Ferric Sulfate	R	75	20	NR	TR	R	R
Ferric Sulfate 5%	R	75	21	NR	NR	R	R
Ferrous Chloride	R	R	21	NR	NR	NR	21
Ferrous Nitrate	60						
Ferrous Sulfate	82	R	NR			R	R
Fish Oils	40			NR	TR	R	R
Fish Solubles	60						
Fluoboric Acid	R	20	NR				R
Fluorine Gas, Wet	NR	20	NR				
Flusilicic Acid	60			NR	NR	R	R
Formaldehyde 10%	R	R	R	NR	NR	R	R
Formaldehyde 35% to 50% Solution	R	R	95			R	
Formalin 40%	R				NR	R	R

Chemical

	PP	P.E.T.	Nylon	Cotton	Steel	304 SS	316 SS
Formic Acid (Conc.)	R	21	NR	NR	NR	TR	TR
Formic Acid (Dilute)	R	R	NR		NR	TR	TR
Formic Acid, 10% to 85%	R	R	NR	NR			TR
Formic Acid, Anhydrous	80	NR	NR	NR			TR
Freon 11	21		38	R	R	TR	R
Freon 113	21		38	R	R	R	R
Freon 12	21		38	R	R	TR	R
Freon 22	21		38	R	R	R	R
Freon TF	R		NR			R	R
Freon TMC	21						
Fruit Juices	80			NR	NR	R	R
Fuel Oils	40	R	R	R	R	R	R
Furfural	NR		NR	R	R	R	R
Furfural Alcohol	25	R	R				
Gallic Acid	R	R	20				
Gas-Natural	R	R	R	R	R	R	R
Gasoline	NR	R	R	R		R	R
Gasoline-Aviation	NR		R		R	R	R
Gasoline-Sour	NR		21	R	TR	R	R
Gelatin	R	R	NR	R	TR	R	R
Glucose	R			NR	R	R	R
Glucose (Corn Syrup)	R	20	20				R
Glycerine-Glycerol	R	R	R	R	R	R	R
Glycol	R	NR	R	R	R	R	R
Glycol Monoether	21			NR		R	R
Glycolic Acid	R						
Green Sulfate Liquor	40		NR	NR	TR	NR	TR
Gum Arabic				R	R	R	R
Helium	R	R	R	R	R	R	R
Heptane	NR	20	R	R	R		
Hexachlorbenzene	40	R	NR				
Hexane	30	R	R	R	R	R	R
Honey	R			R		R	R
Hydraulic Oil-Petroleum Base	30	R	R	R	R	R	R
Hydraulic Oil-Phosphate Ester	30	R	R	R	R	R	R
Hydraulic Oils	65	95	20	R			
Hydraulic Oils-Water Base	65	95	20	R			
Hydrazine				NR	TR		R
Hydrobromic Acid 10%	66	21	NR	NR	R	NR	NR
Hydrobromic Acid 50%	66		NR	NR	R	NR	NR
Hydrochloric Acid 5%	R	TR	NR	NR	NR	NR	NR
Hydrochloric Acid 25% to 38%	R	25	NR	NR			NR
Hydrochloric Acid 30%	R	TR	NR	NR	NR	NR	NR
Hydrochloric Acid 50%	40	R	NR	NR		TR	NR
Hydrocyanic Acid	40			NR	R	R	R
Hydrocyanic Acid 5%	40			NR	R	R	R
Hydrofluoric Acid 10%	R	NR	NR	NR	NR	NR	NR
Hydrofluoric Acid 50%	40	NR	NR	NR	NR	NR	NR
Hydrofluoric Acid 50% to 100%	R	NR	NR	NR		TR	TR

Chemical

	PP	P.E.T.	Nylon	Cotton	Steel	304 SS	316 SS
Hydrogen Chloride Gas, Dry	R						
Hydrogen Gas	TR				R	R	R
Hydrogen Peroxide 5%	80	TR	TR	R	NR	R	R
Hydrogen Peroxide 30%	80	50	TR	R	NR	R	R
Hydrogen peroxide 50%	80	20	20			R	
Hydrogen peroxide 90%	80	20	20			R	
Hydrogen Sulfide (Dry)	40			NR	TR	R	R
Hydrogen Sulfide (Wet)	R			NR	NR	R	R
Hydroquinone	60	21		R	TR	R	R
Insulating Oil				R	R	R	R
Iodine	R	TR	NR		NR	R	R
Iodine Solution, Alcohol	NR	20		R			
Iodine Solution, Water			NR	R			
Isopropyl Acete	21			R			TR
Isopropyl Alcohol	R	21		R	R	R	R
Isopropyl Ether	38		20	R			R
Jet fuel,JP 4 & JP 5	20	20	35	R		R	R
Kerosene	40	R	R	R	R	R	R
Ketchup	R			R		TR	TR
Ketones, General	66	NR	65	R		R	R
Lactic Acid	R	R	21	NR		NR	R
Lanolin Oil	R			R			
Lard Oil	R	R	R	R	NR	R	R
Latex (Natural)	21		21	R	R	R	R
Lauric Acid	75						
Lead Acetate	R	R	R	NR	NR	R	R
Lead Chloride		R			TR		
Lead Sulfate			20	R	TR		
Lime-Sulfur	60			R		R	R
Linoleic Acid	R		NR	37	NR	TR	R
Linseed Oil	R	R	R	R	TR	R	R
Lithium Bromide	40			R	R	R	R
Lithium Carbonate	21			NR	TR		
Lithium Chloride	R	R	R	R	R	R	R
Lithium Hydroxide	R		NR	R	R	R	R
Lube Oil	40	R	R	R	R	R	R
Lye	R	NR	R	NR	54	R	R
Magnesium Carbonate	R	40		R	TR	R	R
Magnesium Chloride	82	21	21	NR	NR	TR	R
Magnesium Hydroxide	R			R	TR	R	R
Magnesium Nitrate	R		20		TR	R	R
Magnesium Sulfate	82				R	R	R
Maleic Acid	R	NR	NR		TR	R	R
Malic Acid	50						R
Mayonnaise	40			R	NR	TR	R
Melamine Resins	R		R	21		NR	NR
Mercuric Chloride	R		NR				NR
Mercuric Chloride 10%	R	R		R	NR	NR	TR
Mercuric Cyanide	R						R

Chemical

	PP	P.E.T.	Nylon	Cotton	Steel	304 SS	316 SS
Mercuric Nitrate	R						
Mercurous Nitrate	82			NR	R	R	R
Mercury	82	60	60	NR	R	R	R
Methane	R			R	R	R	R
Methyl Acetate	40	R	R	NR	TR	R	R
Methyl Alcohol	R	R	R	R	R	R	R
Methyl Bromide	NR	NR	NR		TR		
Methyl Bromoacetate	R	R	R				
Methyl Cellosolve	R			R	R	TR	TR
Methyl Chloride	R	20	20	R	TR		R
Methyl Ethyl Ketone	60	21	NR	R	R	NR	R
Methyl Isobutylketone	R	NR	40	R		R	R
Methyl Salicylate	R						
Methyl Urea	R	R	R				
Methylene Chloride	NR	38	38	NR	38	66	100
Methyl Diethanol Amine	R						
Methyl Sulfate	R						
Milk	82	R	R	R	R	R	R
Mineral Oil	40	R		R	R	R	R
Molasses	30	93	93	R	TR	R	R
Monoethanolamine	30			R	R	R	R
Morpholine	65		R	R	R		R
Mustard	R	R		R	NR	R	R
Naptha	21	93	93	R	R	R	R
Naphthalene	21	21	21	R	R	R	R
Nickel Chloride	R	21	NR	NR	NR	NR	NR
Nickel Nitrate	R						
Nickel Sulfate	R	R	NR	NR	NR	R	R
Nitric Acid 10%	R	TR	NR	NR	NR	R	R
Nitric Acid 20%	82	TR	NR	NR	NR	R	R
Nitric Acid 5% to 40%	50	20	NR	NR		R	R
Nitric Acid 50%	40	TR	NR	NR	NR	100	100
Nitric Acid 70%	NR	20	NR	NR			
Nitric Acid Fuming	NR	NR	NR	NR	NR	52	52
Nitrobenzene	TR	93	93	R	TR	R	R
Nitrobenzene 10%	TR	93	93	R	TR	R	R
Nitrobenzoic Acid	40	R	NR			R	
Nitrogen	R	R	R	R	R	R	R
Nitrotoluene	R	R	R				
Nitrous Acid	NR		NR	NR			
Nitrous Oxide				NR	TR	TR	R
Octyl Alcohol	R	R	R	R			
Oil, Crude	30	R	R	R	R	R	R
Oleic Acid	49	66	NR	NR	NR	NR	R
Oleic Acid 5%	82		NR	NR	NR	NR	R
Oleum	NR		NR	NR	NR	TR	R
Olive Oil	40			R	TR	R	R
Oxalic Acid	50	R	NR	NR		TR	R
Oxalic Acid 5%	82	TR	21	NR		R	R

Chemical

	PP	P.E.T.	Nylon	Cotton	Steel	304 SS	316 SS
Ozone	NR	R	NR				
Palm Oil	40	R		R	R	R	R
Palmitic Acid	70	75	20				
Paraldehyde	R	R	R				
Pentane	21		R	R	R	R	R
Peracetic Acid 40%	NR		20	NR			
Perchloric Acid 10%	60	NR	NR	NR			
Perchloric Acid 70%	NR	NR	NR	NR			
Perchloroethylene	NR	95	95			R	R
Perchloroethylene (Dry)	TR	95	95		R	R	R
Petroleum Ether	21	R	R		R	R	R
Petroleum Oil-Refined	21	R	R		R	R	R
Petroleum Oil-Sour	21	R	R		NR	R	R
Phenol	88	TR	NR	NR	TR	R	R
Phenol (Carbolic Acid)	80	NR	NR	NR		R	
Phenol Ether	NR	R	R	R			
Phenol-Formaldehyde Resin				R	R	R	R
Phenoxyacetic Acid	R	R	25	NR			
Phosphoric Acid 1%	R	99	R	NR	NR	100	R
Phosphoric Acid 10%	R	99	21	NR	NR	100	R
Phosphoric Acid 50%	82	TR	NR	NR	NR	100	R
Phosphoric Acid 80%	82	TR	NR	NR	NR	NR	TR
Phosphorous Pentoxide	70						
Phosphorous Trichloride	NR	R	NR				
Phthalic Acid (Aqueous)	R	R	20	NR			
Picric Acid (HO2 Sol'n.)	49				NR	R	R
Pine Oil	30	R	21	R	TR	R	R
Plating Solutions							
-Arsenic	66			R	R		R
-Brass Cyanide	R			R	R	R	
-Bronze Cyanide	30			R	R		
-Cadmium Cyanide	R			R	R	R	R
-Cadmium Fluoborate	37			NR		NR	R
-Copper Cyanide	R			37	R	R	R
-Gold Cyanide	R	70		R		R	R
-Iron Chloride	R		R			NR	R
-Iron Sulfate	60		60		R		R
-Lead Alkali	R		R		R		R
-Lead Fluoborate			38			R	R
-Nickel Bright Chloride	21					R	R
-Nickel Dull Chloride						R	R
-Nickel Dull Fluoborate	NR		77				R
-Silver	80				R	R	R
-Tin Acid	21		21		R	R	
-Tin Fluoborate	38		38			R	R
-Zinc Cyanide	R				R	R	R
-Zinc Fluoborate			54				R
Potassium Acetate 50%	95		95		NR	R	R
Potassium Bicarbonate	R	60	20				R

Chemical

	PP	P.E.T.	Nylon	Cotton	Steel	304 SS	316 SS
Potassium Bichromate	R	NR	NR				
Potassium Bisulfate	R	R	25	NR			
Potassium Bisulfate 10%	21	R	TR	NR		NR	R
Potassium Bromide	R	20	NR		TR	R	R
Potassium Carbonate	82	NR	R	NR	R	R	R
Potassium Carbonate 10%	82	TR	R	NR	TR	R	R
Potassium Chlorate	R	20	NR		TR	R	R
Potassium Chloride	R	75	20		TR	R	R
Potassium Chloride 5%	82	21			NR	R	R
Potassium Chlorite	R	R	R				
Potassium Chromate	R						R
Potassium Chromate 10%	R					R	R
Potassium Cyanide	R	20	20		TR		R
Potassium Cyanide 5%	R		R	R	R	R	R
Potassium Dichromate	R	R	NR		TR		R
Potassium Ferricyanide	R	75	20				
Potassium Ferrocyanide 10%	82			R	R	R	R
Potassium Hydroxide	82	R	R	NR		R	
Potassium Hypochlorite	70				TR		
Potassium Nitrate	R	75	20		TR	R	R
Potassium Permanganate	60	R	NR		TR	R	R
Potassium Permanganate 5%	66	TR	NR	NR	TR	R	R
Potassium Sulfate	R	20	60		TR	R	R
Potassium Sulfate 5%	82	49	49	R	R	R	R
Potassium Sulfide	R		20		TR		
Propane	38	121	93	R	R	R	R
Propionic Acid	25	R	R	R	NR	NR	R
Propyl Alcohol	R	20	NR	R			
Propylene Glycol	82	NR	R	R	TR	R	R
Propylene Oxide	21			R	TR		
Pyridine	80	R	20		R	TR	R
Resorcinol	R	R	20				
Salicylic Acid	80		20	NR	NR		
Shellac	21			21	R	R	R
Silver Cyanide	R						
Silver Nitrate	R	TR	TR		NR	R	R
Soap Salolutions	R			R		R	R
Soda Ash	40	21	R	R	TR	R	R
Sodium Acetate	R	R	R	R	NR	R	R
Sodium Benzoate	R	R	20		R		
Sodium Bicarbonate	R	40	95	R	R	R	R
Sodium Bisulfate	66	21	NR		NR	NR	R
Sodium Bisulfite	82	R	TR	NR	NR		60
Sodium Borate	80			R	NR	R	R
Sodium Bromide	R	R	R		TR		
Sodium Carbonate	R	TR	R	NR	TR	R	R
Sodium Chlorate	R	20	NR	NR	TR	R	R
Sodium Chloride	R	R	R	R			R
Sodium Chloride 10%	R	R	R	R	TR	R	R

Chemical

	PP	P.E.T.	Nylon	Cotton	Steel	304 SS	316 SS
Sodium Chlorite	60				NR		
Sodium Cyanide	R	R	TR	R	R	R	R
Sodium Dichromate	60	20	NR				
Sodium Ferricyanide	R						
Sodium Ferrocyanide	50	75					
Sodium Fluoride	R		NR				
Sodium Fluoride 5%	R			NR	NR	TR	R
Sodium Hydroxide 5%	R	55	R		TR	R	R
Sodium Hydroxide 10% to 30%	R	55	R	NR		R	R
Sodium Hydroxide 40%	R	NR	R	NR	TR	R	R
Sodium Hydroxide 70%	R	NR	R	NR			
Sodium Hypochlorite	R	70	NR		TR		
Sodium Hypochlorite 5%	R	TR	TR		NR	TR	R
Sodium Metaphosphate	30			NR	TR	NR	R
Sodium Nitrate	R	R	70			R	R
Sodium Nitrate 5%	R	R	70	R	R	R	R
Sodium Nitrite	R						TR
Sodium Perborate 1%	82	71		R	TR	R	R
Sodium Peroxide	80	NR	20		NR	R	R
Sodium Phosphate	82	21	R	R	NR	R	R
Sodium Polysulfide				NR		R	R
Sodium Silicate	82			R	R	R	R
Sodium Sulfate	82	R	R	NR	TR	R	R
Sodium Sulfide	82	R	R		R	TR	R
Sodium Sulfite	50	25	95				TR
Sodium Thiosulfate	60	21	21	R	R	R	R
Soybean Oil	60	R		R	TR	R	R
Stannic Chloride	R	75	20				R
Stannic Chloride 5%	R		R	R	TR	R	R
Stannous Chloride	R	75	NR		NR		TR
Stannous Chloride 5%	R	75	21	R	NR	NR	R
Starch	R			R	NR	R	R
Steam	R		116	R	TR	R	R
Stearates	R		R	R	R	R	R
Stearic Acid	80	20	60		NR	R	R
Stoddard Solvent	40	R	21	R	TR	TR	TR
Succinic Acid	60	R	20				
Sucrose Solutions	R				NR	R	R
Sulfamic Acid	R	NR	NR	NR			
Sulfate Liquors	30		NR	NR		NR	TR
Sulfur Dioxide (Dry)	R		NR	NR	TR	R	R
Sulfur Dioxide (wet)	R	25	20			R	R
Sulfur Trioxide	NR	20	NR	NR			TR
Sulfuric Acid 5%	R	66	NR	NR	NR	TR	R
Sulfuric Acid 10% to 50%	95	70	NR	NR		NR	TR
Sulfuric Acid 50%	95	21	NR	NR	NR	NR	TR
Sulfuric Acid 60%	95	NR	NR	NR		NR	TR
Sulfuric Acid 70%	70	NR	NR	NR		NR	
Sulfuric Acid 80%	70	NR	NR	NR		NR	

Chemical

	PP	P.E.T.	Nylon	Cotton	Steel	304 SS	316 SS
Sulfuric Acid 96%	21	NR	NR	NR			
Sulfuric Acid 100%	NR	NR	NR	NR		R	30
Sulfuric Acid Fuming	NR	NR	NR	NR	NR	TR	R
Sulfurous Acid	R		NR	NR	TR	R	R
Tannic Acid	R	65	20			R	
Tannic Acid 10%	R	65	21		NR	R	R
Tanning liquors	60		20				R
Tartaric Acid	66	75	60	NR	TR	TR	R
Tetrachlorethylene (Dry)	NR		100	R	R	NR	R
Tetrachloroethane	21	30	30	R	24	R	R
Tetrachloroethylene	25	R	R	R			R
Tetrahydrofuran	NR		38	NR	NR	R	R
Thiocarbamide (Thio Urea)	25	R	R				
Titanium Tetrachloride	40		20				
Toluene	49	21	R	R	R	R	R
Transformer Oil	49	TR			R	R	R
Tribromobenzene	25	R	25				
Trichloroethylene	NR	R	R	R			R
Trichloroethylene (Dry)	NR		21	R	R	R	R
Triethanolamine	60	21		R	TR	R	R
Triethylene Glycol				R		R	R
Trisodium Phosphate	49	21	21	R		R	R
Tung Oil	30			NR	R	R	R
Turpentine	40	21	R	R	R	R	R

Note: As a suggestion, if the chemical you are interested in is not listed in the table, or is labeled "TR" (Test Recommended), you may conduct your own test by following these procedures:

1. Immerse the filter cartridge in the test solution at the desired operating temperature for a minimum period of 48 hours.
2. Thoroughly examine the filter cartridge for any change in colour, swelling, softening, deformation, weakness or any other changes.

Chemical

	PP	P.E.T.	Nylon	Cotton	Steel	304 SS	316 SS
Urea	R	20	40		TR		
Urea-Formaldehyde Resin	R			R	R		
Valeraldehyde	NR	R	NR				
Vanilla Extract	R			R		R	R
Varnish	NR		R	R	R	R	R
Vegetables Oils	40	R	NR	R	R	R	R
Venyl Chloride Monomer (VCM)	TR		R				
Vinegar	66		NR	32	NR	R	R
Water-Brakish	R					R	R
Water-De-ionised	R					R	R
Water-Demineralized	R	R	20	R		R	R
Water-Distilled	R	R	20	R		R	R
Water-Drinking	R			NR		R	R
Water-Fresh	R	99	116		NR	R	R
Water-Salt	R	99	20	R	NR	NR	R
Water-Sea	R	R	20	R	NR	NR	R
Waxes	40				R	R	R
Whiskey	40		NR	NR	NR	R	R
Wine	40		NR	NR	NR	R	R
Xylene	NR	R	R	R	R	R	R
Zinc Bromide	R		NR				R
Zinc Chloride 10% - 20%	R	95	NR		TR	R	R
Zinc Cyanide	R		R	R	R	R	R
Zinc Sulfate	R	R	TR	NR	NR	R	R

3. Observe the solution to see if any changes in colour, clarity, viscosity, etc. have taken place.

4. If possible, analyze the solution to check if any chemical reaction has taken place.

If there is no perceptible change in the solution or the cartridge, it may be considered suitable for use.