PP Chemical Resistance Guide

Reagent	70°F (21°C)	140°F (60°C)	212°F (100°C)
A			
Acetic acid (10%)	S	S	
Acetic acid (50%)	S	S	O
Acetic acid (100%)	S	S	
Acetic anhydride	S	S	
Acetone	S	S	
Acetonitrile	S		
Acetophenone	O	O	U
Almond Oil	S	S	
Aluminum ammonium sulfate	S	S	
Aluminum chloride	S	S	O
Aluminum fluoride	S	S	
Aluminum hydroxide	S	S	
Aluminum nitrate	S	S	S
Aluminum potassium sulfate	S	S	
Alums (all types)	S	S	
Ammonia (anhydrous)	S	S	
Ammonia (30% aqueous)	S	S	
Ammonium bi-fluoride	S	S	
Ammonium carbonate	S	S	S
Ammonium chloride	S	S	O
Ammonium fluoride (25%)	S	S	
Ammonium hydroxide	S	S	
Ammonium nitrate	S	S	S
Ammonium sulfate	S	S	S
Ammonium sulfide	S	S	
Ammonium thiocyanate	S	S	
Amyl acetate	O	U	
Amyl alcohol	S	O	U
Amyl chloride	U	U	
Aniline	S	S	O
Anisole	O	O	U
Antimony trichloride	S	S	
Apple Juice	S	S	S
Aqua regia	O	O	
Arsenic acid	S	S	
Aviation fuel	O	O	
B			
Barium carbonate	S	S	
Barium chloride	S	S	O
Barium hydroxide	S	S	
Barium soap grease	S	O	
Barium sulfate	S	S	
Barium sulfide	S	S	S
Beer	S	S	
Beet Juice	S	S	O
Benzaldehyde	S	S	
Benzene	O	U	U
Benezene Sulfonic Acid, 10%	S	S	S
Benzoic Acid	S		
Benzyl alcohol	S	S	
Benzyl chloride	S	S	
Bismuth carbonate	S	S	
Bluing	S	S	S
Borax	S	S	S
Boric acid	S	S	
Brandy	S	S	
Brake fluid	S	O	
Brine	S	S	S
Bromic acid	U	U	
Bromine	U	U	
Bromine water	U	U	
Butane	O		
Butyl acetate	U	U	
Butyl acrylate	U	U	
Butyl alcohol	S	S	
Butyl Phthalate	S	S	S
C			
Calcium bisulfate	S	S	
Calcium carbonate	S	S	S
Calcium chlorate	S	S	
Calcium chloride	S	S	O
Calcium hydroxide	S	S	S
Calcium hypoclorite	S	S	
Calcium nitrate	S	S	
Calcium soap grease	S	O	
Calcium sulfate	S	S	
Calgonite (1%)	S	S	
Camphor Oil	U	U	U
Carbon dioxide (dry)	S	S	
Carbon dioxide (wet)	S	S	
Carbon disulfide	O	U	
Carbon monoxide	S	S	
Carbon tetrachloride	U	U	
Carbonic acid	S	S	
Castor oil	S	S	
Caustic Soda, conc.	S	S	S
Cellosolve	S	S	

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Reagent	70°F (21°C)	140°F (60°C)	212°F (100°C)
Cetyl alcohol	S		
Chlorine (dry)	U	U	
Chlorine (wet)	O	U	
Chloroacetic acid	S		
Chlorobenzene	U	U	
Chloroform	O	U	
Chlorosulfonic acid	U	U	
Chromic acid (10%)	S	S	
Chromic acid (50%)	S	S	
Chromic acid (80%)	S		
Cider	S	S	
Citric acid	S	S	
Clorox	S	S	S
Clove Oil	O	U	U
Copper chloride	S	S	
Copper cyanide	S	S	
Copper fluoride	S	S	
Copper nitrate	S	S	
Copper sulfate	S	S	
Corn oil	S	S	
Cottonseed oil	S	S	
Cresol	S	S	
Cuprous chloride	S	S	
Cyclohexane	S	O	
Cyclohexanol	S	O	
Cyclohexanone	O	U	
D			
Decalin	U	U	
Developers (photographic)	S	S	
Dextrin	S	S	
Dibutyl phthalate	S	S	
Dichloroethylene	S		
Diethanolamine	S	S	
Diethyl ether	O	O	
Diglycolic acid	S	S	
Diisooctyl phthalate	S	S	
Dimethyl phthalate	S	S	
Dioctyl Phthalate	U	U	U
p-Dioxane	S	O	
E			
Ethanolamine	S	S	
Ethyl acetate	S	S	
Ethyl alcohol	S	S	S
Ethylamine	S	S	
Ethyl chloride	O	O	
Ethyl ether	O	O	
Ethylene chloride	U	U	
Ethylene chlorohydrin	S	S	
Ethylene dichloride	S		
Ethylene glycol	S	S	
Ethylene oxide	S		
F			
Ferric chloride	S	S	
Ferric nitrate	S	S	
Ferric sulfate	S	S	
Ferrous chloride	S	S	
Ferrous nitrate	S	S	O
Ferrous sulfate	S	S	
Fluorine	U	U	
Fluosilicic acid	S	S	
Formaldehyde	S	S	O
Formic acid (10%)	S	S	
Formic acid (100%)	S		
Freon (12, 22)	U		
Fructose	S	S	
Fruit juice	S	S	
Fuel oil	O	O	
Furfural	U	U	
G			
Gasoline	O	U	
Gelatin	S	S	
Glucose	S	S	
Glycerol	S	S	S
Glycol	S	S	O
Glycolic acid	S	S	
H			
Heptane	U	U	U
Hexadecyl alcohol	S	S	
Hexane	O	U	
Hydrobromic acid (50%)	S	S	
Hydrochloric acid (20%)	S	S	O
Hydrochloric acid (100%)	S	S	O
Hydrofluoric acid (35%)	S	O	
Hydrogen chloride gas (dry)	S	S	
Hydrogen peroxide (30%)	S	O	
Hydrogen peroxide (90%)	O	O	U
Hydrogen sulfide	S	S	
Hydroiodic acid	U	U	
Hydroquinone	S	S	
I			
Igepal	S	S	

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Iodine (dry)	S	S	
Iodine (wet)	U		
Isooctane	U		
Isopropyl alcohol	S	S	
J			
Jet fuel (JP-4 and JP-5)	O	U	
K			
Kerosene	O	U	
L			
Lactic acid	S	S	
Lacquer	S		
Lanolin	S	S	
Lead acetate	S	S	S
Lemon oil	O		
Ligroin	S		
Lime Sulfur	S		
Linseed oil	S	S	
Lubricating oil	S	O	
Lye	S		
M			
Magnesium carbonate	S	S	S
Magnesium chloride	S	S	O
Magnesium hydroxide	S	S	S
Magnesium nitrate	S	S	
Magnesium sulfate	S	S	
Magnesium sulfite	S	S	
Malic acid	S	O	
Maple Syrup	S		
Mayonnaise	S		
Mercuric chloride	S	S	
Mercuric cyanide	S	S	
Mercuric nitrate	S	S	
Mercurochrome	S		
Mercury	S	S	
Merthiolate (tincture)	S	S	
Methane	S	S	
Methanol	S	S	
Methyl cellosolve	S		
Methyl chloride	U		
Methylene chloride	S	O	
Methyl ethyl ketone	S	S	
Methyl isobutyl ketone	S	S	
Methylsulfuric acid	S	S	
Milk	S	S	
Mineral oil	S	U	
Molasses	S		

Reagent	70°F (21°C)	140°F (60°C)	212°F (100°C)
Motor oil	S	S	
Mustard Paste	S		
N			
Naphtha	S	S	
Naphthalene	S	S	S
Neat's Foot Oil	S		
Nickel chloride	S	S	
Nickel nitrate	S	S	O
Nickel sulfate	S	S	S
Nitric acid (10%)	S	S	S
Nitric acid, conc.	O	U	
Nitric acid (fuming)	U		
Nitric/sulfuric acid (50/50)	U		
Nitrobenzene	S	O	
Nitrous acid	O		
Nutmeg Oil	U	U	U
O			
Oleic acid	S	S	
Oleum	U		
Olive oil	S	S	
Orange Juice	S		
Oxalic acid	S	S	
Oxygen	U	U	
Ozone	U	U	
P			
Palmitic Acid	S	S	S
Paradichlorobenzene	S	S	
Peanut oil	S	S	
Perchloroethylene	U	U	
Phenol (10%)	S	S	O
Phosgene (gas)	U	U	
Phosgene (liquid)	U	U	
Phosphoric acid (30%)	S	S	O
Phosphoric (85%)	S	S	O
Phosphorus	S		
Phthalic acid	S		
Picric Acid	S		
Polyvinyl acetate	S		
Potassium bromide	S	S	S
Potassium carbonate	S	S	S
Potassium chlorate	S	S	O
Potassium cyanide	S	S	
Potassium dichromate	S	S	S
Potassium ferrocyanide	S	S	
Potassium hydroxide	S	S	S
Potassium nitrate	S	S	

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Reagent	70°F (21°C)	140°F (60°C)	212°F (100°C)
Potassium permanganate	S	O	
Potassium sulfate	S	S	S
Potassium sulfide	S	S	S
Propanol	S	S	
Pyridine	S		
R			
Rice Bran Oil	S	S	
Rosin, light	S		
S			
Safflower Oil	S	O	
Sauerkraut	S		
Shellac	S		
Silicone Oil	S		
Silver cyanide	S	S	
Silver nitrate	S	S	S
Sodium acetate	S	S	
Sodium benzoate	S	S	S
Sodium bicarbonate	S	S	
Sodium bisulfate	S	S	
Sodium bisulfite	S	S	
Sodium bromide	S	S	
Sodium carbonate	S	S	S
Sodium chlorate	S	S	O
Sodium chloride	S	S	O
Sodium cyanide	S	S	
Sodium hydroxide, conc.	S	S	S
Sodium Hypochlorite, conc.	S	O	U
Sodium Nitrate	S	S	S
Sodium Perborate	S		
Sodium Phosphate	S	S	S
Sodium sulfate	S	S	
Sodium sulfite	S	S	
Sodium Thiosulfate	S	S	
Soybean Oil	S	S	
Stannic chloride	S	S	
Stannous chloride	S	S	
Starch	S	S	
Styrene	U	U	U
Sucrose (20%)	S	S	
Sulfamic acid	S	S	
Sulfur	O	U	U
Sulfur Chloride	O	U	U
Sulfuric acid (10%)	S	S	S
Sulfuric acid (50%)	S	S	
Sulfuric acid, conc.	S	O	U
Sulfuric acid (fuming)	U	U	

Reagent	70°F (21°C)	140°F (60°C)	212°F (100°C)
T			
Tannic acid (10%)	S	S	
Tartaric Acid	S	S	S
Tea	S	S	S
Tetrahydrofuran	S	S	O
Tetralin	O	O	O
Toluene	U	U	
Tomato Juice	S	S	S
Tomato Soup	S	S	S
Tributyl phosphate	S	O	
Trichloroacetic Acid	S	O	
Trichloroethylene	U	U	
Tricresyl phosphate	S	S	
Triethanolamine	O	O	
Trisodium phosphate	S	S	
Turpentine	S	O	O
U			
Urea	S	S	
Urine	S	S	
V			
Vanilla	S	S	
Varnish	S		
Vaseline	S	O	O
Vinegar	S	S	
W			
Water	S	S	O
Wheat Germ Oil	S	S	
Whiskey	S	S	S
White Spirits	U	U	U
Wines	S	S	
X			
Xylene	O	U	
Xylol	S		
Y			
Yeast	S	S	
Z			
Zinc chloride	S	S	
Zinc oxide	S	S	
Zinc sulfate	S	S	

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Note: The proceeding information concerns general chemical resistance only. Since other factors such as permeation, ESCR and container design are involved, full compatibility testing is recommended. Staining is not considered in this evaluation.

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