CHEMICAL RESISTANCE OF POLYPROPYLENE

Reagent	20° C	60° C	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
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 bifluoride	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	
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	
Benzaldehyde	S	S	
Benzyl alcohol	S	S	
Benzyl chloride	S	S	
Bismuth carbonate	S	S	
Borax	S	S	S
Boric acid	S	S	
Brake fluid	S	O	
Brine	S	S	S
Bromic acid	U	U	
Bromine	U	U	
Bromine water	U	U	
Butyl acetate	U	U	
Butyl acrylate	U	U	
Butyl alcohol	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 hypochlorite	S	S	
Calcium nitrate	S	S	
Calcium soap grease	S	O	
Calcium sulfate	S	S	
Calgonite (1%)	S	S	
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	
Cellosolve	S	S	
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
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	U
Dichloroethylene	S		
Diethanolamine	S	S	
Diethyl ether	O	O	
Diglycolic acid	S	S	
Diisooctyl phthalate	S	S	
Dimethyl phthalate	S	S	
p-Dichlorobenzene	S	S	

p-Dioxane	S	O	
Ethanolamine	S	S	
Ethyl acetate	S	S	
Ethyl alcohol	S	S	S
Ethyl chloride	O	O	
Ethyl ether	O	O	
Ethylamine	S	S	
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	
Fluorosilicic acid	S	S	
Formaldehyde	S	S	O
Formic acid (10%)	S	S	
Formic acid (100%)	S		
Fructose	S	S	
Fruit juice	S	S	
Fuel oil	S	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	
Hexadecyl alcohol	S	S	
Hexane	S	S	
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	
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	
Lanolin	S	S	
Lauric acid	S	S	
Lead acetate	S	S	S
Lemon oil	O		
Linseed oil	S	S	
Lubricating oil	S	O	

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	
Mercuric chloride	S	S	
Mercuric cyanide	S	S	
Mercuric nitrate	S	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	
Mineral spirits	S	S	
Motor oil	S	S	

N

Naphtha	S	S	
Naphthalene	S	S	S
Nickel chloride	S	S	
Nickel nitrate	S	S	O
Nickel sulfate	S	S	S
Nitric acid (10%)	S	S	S
Nitric acid (concentrated)	O	U	
Nitric acid (fuming)	U		
Nitric/sulfuric acid (50/50%)	U		
Nitrobenzene	S	O	
Nitrous acid	O		

O

Oleic acid	S	S	
Oleum	U		
Olive oil	S	S	
Oxalic acid	S	S	
Oxygen	U	U	
Ozone	U	U	

P

Paraffin	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 acid (85%)	S	S	O
Phosphorus	S		
Phthalic acid	S		
Polyvinyl acetate	S		
Potassium bromide	S	S	S
Potassium carbonate	S	S	S
Potassium chlorate	S	S	O
Potassium chloride	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	
Potassium permanganate	S	O	
Potassium sulfate	S	S	S
Potassium sulfide	S	S	S
Propanol	S	S	
Pyridine	S		

S

Silicone oil	S	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 fluoride	S	S	
Sodium hydroxide (concentrated)	S	S	S
Sodium sulfate	S	S	
Sodium sulfite	S	S	
Stannic chloride	S	S	
Stannous chloride	S	S	
Starch	S	S	
Sucrose (20%)	S	S	
Sulfamic acid	S	S	
Sulfuric acid (10%)		S	S
S			
Sulfuric acid (50%)		S	S
Sulfuric acid (concentrated)	S	O	U
Sulfuric acid (fuming)	U	U	

T

Tannic acid (10%)	S	S	
Tetrahy drofuran	S	O	O
Tetralin	O	O	O
Toluene	U	U	
Tributyl phosphate	S	O	
Trichloroacetic acid		S	S
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	

W

Water	S	S	O
Whiskey	S	S	S
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	

Legend:

S = Satisfactory O = Some attack U = Unsatisfactory

Note:
This information concer ns general chemical resistance only. Since other factors such as permeation, ESCR and container design are involved, it is necessary to establish the resistance under real conditions.