

HDPE Chemical Resistance Chart

Reagent	70 deg. F (21 deg. C)	140 deg. F (60 deg. C)	Reagent	70 deg. F (21 deg. C)	140 deg. F (60 deg. C)
A			Calcium Nitrate 50%	S	S
Acetic Acid 1-10%	S	S	Calcium Sulfate	S	S
Acetic Acid 10-60%	S	M	Camphor Oil	N	U
Acetic Acid 80-100%	S	M	Carbon Dioxide 100% Dry	S	S
Acetone	M	U	Carbon Dioxide 100%Wet	S	S
Acrylic Emulsions	S	S	Carbon Dioxide Cold Sat'd	S	S
Aluminum Chloride-Dilute	S	S	Carbon Disulfide	N	U
Aluminum Chloride Conc.	S	S	Carbon Monoxide	S	S
Aluminum Fluoride Conc.	S	S	Carbon Tetrachloride	M	U
Aluminum Sulfate Conc.	S	S	Carbonic Acid	S	S
Alums (All Types) Conc.	S	S	Castor Oil Conc.	S	S
Ammonia 100% Dry Gas	S	S	Chlorine Dry Gas 100%	S	M
Ammonium Carbonate	S	S	Chlorine Moist Gas	M	U
Ammonium Chloride Sat'd	S	S	Chlorine Liquid	M	U
Ammonium Fluoride 20%	S	S	Chlorobenzene	M	U
Ammonium Hydroxide 0.85 S.G.	S	S	Chloroform	M	U
Ammonium Metaphosphate Sat'd	S	S	Chlorosulfonic Acid 100%	M	U
Ammonium Nitrate Sat'd	S	S	Chrome Alum Sat'd	S	S
Ammonium Persulfate Sat'd	S	S	Chromic Acid 20%	S	S
Ammonium Sulfate Sat'd	S	S	Chromic Acid Up to 50%	S	S
Ammonium Sulfide Sat'd	S	S	Chromic Acid and Sulfuric Acid	S	M
Ammonium Thiocyanate Sat'd	S	S	Cider	S	S
Amyl Acetate	M	U	Citric Acid Sat'd	S	S
Amyl Alcohol 100%	S	S	Coconut Oil Alcohols	S	S
Amyl Chloride 100%	N	U	Cola Concentrates	S	S
Aniline 100%	S	N	Copper Chloride Sat'd	S	S
Antimony Chloride	S	S	Copper Cyanide Sat'd	S	S
Aqua Regia	U	U	Copper Fluoride 2%	S	S
B			Copper Nitrate Sat'd	S	S
Barium Carbonate Sat'd	S	S	Copper Sulfate Dilute	S	S
Barium Chloride	S	S	Copper Sulfate Sat'd	S	S
Barium Hydroxide	S	S	Cottonseed Oil	S	S
Barium Sulfate Sat'd	S	S	Crude Oil	S	M
Barium Sulfide Sat'd	S	S	Cuprous Chloride Sat'd	S	S
Beer	S	S	Cychohexanol	S	S
Benzene	M	U	Cyclohexanone	M	U
Benzene Sulfonic Acid	S	S	D		
Bismuth Carbonate Sat'd	S	S	Detergents Synthetic	S	S
Bleach Lye 10%	S	S	Developers, Photographic	S	S
Black Liquor	S	S	Dextrin Sat'd	S	S
Borax Cold Sat'd	S	S	Dextrose Sat'd	S	S
Boric Acid Dilute	S	S	Dibutylphthalate	S	M
Boric Acid Conc.	S	S	Disodium Phosphate	S	S
Bromic Acid 10%	S	S	Diazo Salts	S	S
Bromine Liquid 100%	M	U	Diethylene Glycol	S	S
Butanediol 10%	S	S	Diglycolic Acid	S	S
Butanediol 60%	S	S	Dimethylamine	M	U
Butanediol 100%	S	S	E		
Butyl Alcohol 100%	S	S	Emulsions, Photographic	S	S
C			Ethyl Acetate 100%	M	U
Calcium Bisulfide	S	S	Ethyl Alcohol 100%	S	S
Calcium Carbonate Sat'd	S	S	Ethyl Alcohol 35%	S	S
Calcium Chlorate Sat'd	S	S	Ethyl butyrate	M	U
Calcium Chloride Sat'd	S	S	Ethyl Chloride	M	U
Calcium Hydroxide	S	S	Ethyl Ether	U	U
Calcium Hypochlorite RRGH	S	S	Ethylene Chloride	U	U

Legend: S=Satisfactory U=Unsatisfactory M=Marginal N=Not known

Reagent	70 deg. F (21 deg. C)	140 deg. F (60 deg. C)
Ethylene Chlorohydrin	U	U
Ethylene Dichloride	M	U
Ethylene Glycol	S	S

F

Ferric Chloride Sat'd	S	S
Ferric Nitrate Sat'd	S	S
Ferrous Chloride Sat'd	S	S
Ferrous Sulfate	S	S
Fish Solubles	S	S
Fluoboric Acid	S	S
Fluorine	S	U
Fluosilicic Acid 32%	S	S
Fluosilicic Acid Conc.	S	S
Formaldehyde 40%	S	N
Formic Acid 0-20%	S	S
Formic Acid 20-50%	S	S
Formic Acid 100%	S	S
Fructose Sat'd	S	S
Fruit Pulp	S	S
Fuel Oil	S	U
Furfural 100%	M	U
Furfuryl Alcohol	M	U

G

Gallic Acid Sat'd	S	S
Gas Liquids	S	M
Gasoline	M	U
Gin	S	U
Glucose	S	S
Glycerine	S	S
Glycol	S	S
Glycolic Acid 30%	S	S
Grape Sugar Sat'd Aq.	S	S

H

Hexanol, Tert.	S	S
Hydrobromic Acid 50i/O	S	S
Hydrocyanic Acid Sat'd	S	S
Hydrochloric Acid 10%	S	S
Hydrochloric Acid 30%	S	S
Hydrochloric Acid 35%	S	S
Hydrochloric Acid Conc.	S	S
Hydrofluoric Acid 40%	S	S
Hydrofluoric Acid 60%	S	S
Hydrofluoric Acid 75%	S	S
Hydrogen 100%	S	S
Hydrogen Bromide 10%	S	S
Hydrogen Chloride Gas Dry	S	S
Hydrogen Peroxide 30%	S	S
Hydrogen Peroxide 90%	S	M
Hydrogen Phosphide 100%	S	S
Hydroquinone	S	S
Hydrogen Sulfide	S	S
Hypochlorous Acid Conc.	S	S

I

Inks	S	S
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L

Iodine (Alc. Sol.) Conc.	S	U
Lactic Acid 10%	S	S

Reagent	70 deg. F (21 deg. C)	140 deg. F (60 deg. C)
Lactic Acid 90i/O	S	S
Latex	S	S
Lead Acetate Sat'd	S	S
Lube Oil	S	M

M

Magnesium Carbonate Sat'd	S	S
Magnesium Chloride Sat'd	S	S
Magnesium Hydroxide Sat'd	S	S
Magnesium Nitrate Sat'd	S	S
Magnesium Sulfate Sat'd	S	S
Mercuric Chloride Sat'd	S	S
Mercuric Cyanide Sat'd	S	S
Mercurous Nitrate Sat'd	S	S
Mercury	S	S
Methyl Alcohol 100%	S	S
Methyl Bromide	M	U
Methyl Chloride	M	U
Methyl Ethyl Ketone 100%	M	U
Methylsulfuric Acid	S	S
Methylene Chloride 100%	M	U
Milk	S	S
Mineral Oils	S	U
Molasses Comm.	S	S

N

Nickel Chloride Sat'd	S	S
Nickel Nitrate Conc.	S	S
Nickel Sulfate Sat'd	S	S
Nicotine Dilute	S	S
Nicotinic Acid	S	S
Nitric Acid 0-30%	S	S
Nitric Acid 30-50%	S	M
Nitric Acid 70%	S	M
Nitric Acid 95-98%	U	U
Nitrobenzene 100%	U	U

O

Octyl Cresol	S	U
Oils and Fats	S	M
Oleic Acid Conc.	S	U
Oleum Conc.	U	U
Orange Extract	S	S
Oxalic Acid Dilute	S	S
Oxalic Acid Sat'd	S	S
Ozone 100%	S	U

P

Perchlone Acid 10%	S	S
Petroleum Ether	U	U
Phenol 90%	U	U
Phosphoric Acid Up to 30%	S	S
Phosphoric Acid Over 30%	S	S
Phosphoric Acid 90%	S	S
Phosphorous (Yellow) 100%	S	N
Phosphorus Pentoxide 100%	S	N
Photographic Solutions	S	S
Pickling Baths		
Sulfuric Acid	S	S
Hydrochloric Acid	S	S
Sulfuric-Nitric	S	U

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Reagent	70 deg. F (21 deg. C)	140 deg. F (60 deg. C)	Reagent	70 deg. F (21 deg. C)	140 deg. F (60 deg. C)
Plating Solutions			Sodium Ferrocyanide	S	S
Brass	S	S	Sodium Ferrocyanide Sat'd	S	S
Cadmium	S	S	Sodium Fluoride Sat'd	S	S
Chromium	N	N	Sodium Hydroxide Conc.	S	S
Copper	S	S	Sodium Hypochlorite	S	S
Gold	S	S	Sodium Nitrate	S	S
Indium	S	S	Sodium Sulfate	S	S
Lead	S	S	Sodium Sulfide 25%	S	S
Nickel	S	S	Sodium Sulfide Sat'd Sol.	S	S
Rhodium	S	S	Sodium Sulfite Sat'd	S	S
Silver	S	S	Stannous Chloride Sat'd	S	S
Tin	S	S	Stannic Chloride Sat'd	S	S
Zinc	S	S	Starch Solution SaUd	S	S
Potassium Bicarbonate Sat'd	S	S	Stearic Acid 100%	S	S
Potassium Borate 1%	S	S	Sulfuric Acid 0-50%	S	S
Potassium Bromate 10%	S	S	Sulfuric Acid 70%	S	M
Potassium Bromide Sat'd	S	S	Sulfuric Acid 80%	S	U
Potassium Carbonate	S	S	Sulfuric Acid 96%	M	U
Potassium Chlorate Sat'd	S	S	Sulfuric Acid 98%	M	U
Potassium Chloride Sat'd	S	S	Sulfuric Acid, Fuming	U	U
Potassium Chromate 40%	S	S	Sulfurous Acid	S	S
Potassium Cyanide Sat'd	S	S	T		
Potassium Dichromate 40%	S	S	Tallow	S	M
Potassium Ferri/Ferro Cyanide Sat'd	S	S	Tannic Acid 10%	S	S
Potassium Fluoride	S	S	Tanning Extracts Comm.	S	S
Potassium Hydroxide 20%	S	S	Tartaric Acid Sat'd	N	N
Potassium Hydroxide Conc.	S	S	Tetrahydrofurane	N	U
Potassium Nitrate Sat'd	S	S	Titanium Tetrachloride Sat'd	N	U
Potassium Perborate Sat'd	S	S	Toluene	M	U
Potassium Perchlorate 10%	S	S	Transformer Oil	S	M
Potassium Sulfate Conc.	S	S	Trisodium Phosphate Sat'd	S	S
Potassium Sulfide Conc.	S	S	Trichloroethylene	U	U
Potassium Sulfite Conc.	S	S	U		
Potassium Persulfate Sat'd	S	S	Urea Up to 30%	S	S
Propargyl Alcohol	S	S	Urine	S	S
Propyl Alcohol	S	S	V		
Propylene Dichloride 100%	U	U	Vinegar Comm.	S	S
Propylene Glycol	S	S	Vanilla Extract	S	S
R			W		
Rayon Coagulating Bath	S	S	Wetting Agents	S	S
S			Whiskey	S	N
Sea Water	S	S	Wines	S	S
Selenic Acid	S	S	X		
Shortening	S	S	Xylene	M	U
Silicic Acid	S	S	Y		
Silver Nitrate Sol.	S	S	Yeast	S	S
Soap Solution Any Conc'n	S	S	Z		
Sodium Acetate Sat'd	S	S	Zinc Chloride Sat'd	S	S
Sodium Benzoate 35%	S	S	Zinc Sulfate Sat'd	S	S
Sodium Bicarbonate Sat'd	S	S			
Sodium Bisulfate Sat'd	S	S			
Sodium Bisulfite Sat'd	S	S			
Sodium Borate	S	S			
Sodium Bromide Dilute Sol.	S	S			
Sodium Carbonate Con.	S	S			
Sodium Carbonate	S	S			
Sodium Chlorate Sat'd.	S	S			
Sodium Chloride Sat'd	S	S			
Sodium Cyanide	S	S			
Sodium Dichromate Sat'd	S	S			

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