

Chemical Resistance Ratings Table 1 and Table 2

EXPLANATION OF RATINGS

E (e)¹ = Excellent

The plastic was unaffected in any way for the duration of the test

G (g) = Good

A very slight clouding or discoloration took place. Expected life - months to years.

F (f) = Fair

Moderate effect. Slight etching, some discoloration, possibly some dimensional changes or weight change. Expected life - weeks to months.

P (p) = Poor

Considerable change. Expected life - days.

N (n) = Not Recommended

Severe attack. Plastic became soft in a few hours, and was unusable within a few days or by the end of the test.

S (s) = Solvent

¹Lower case letters express opinions.

**TABLE 1 - General chemical resistance characteristics
at room temperature**

NOTE: refer to ratings, front page, before using Table 1.

Chemical Class	Polystyrene resins		ABS Resins
	General Purpose Grades	High Impact Grades	
Acids, Inorganic			
weak	E	G	G
strong	E	G	G
strong oxidizing	F	F	N
Acids, Organic			
weak	E	E	G
strong	G	E	G
Alcohols	E	G	F
Aldehydes	N	N	N
Amines			
aliphatic	E	E	G
aromatic	N	N	N
Bases	E	E	E
Beverages	E	E	E
Condiment	G	G	E
Esters	N	N	N
Foodstuffs	E	E	E
Glycols			
polyglycols	E	E	E
polyglycol ethers	N	N	N
Hydrocarbons			
aliphatic	N	N	G
aromatic	N	N	N
chlorinated	N	N	N
Insecticides	N	N	N
Ketones	N	N	N
Oils			
essential oils	N	N	N
vegetal oils	G	G	G
Pharmaceuticals	E	E	E
Salts	E	E	E

CAUTION - This table should be used only as a guide. For design engineering of plastic parts, specific test data on the intended environment-plastic combination should be acquired under simulated end-use condition.

TABLE 2 - Chemical resistance

NOTE: refer to ratings, front page, before using Table 2.

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Acetaldehyde	n	n	n	n	n	n
Acetic 5%	E	G	F	P	g	g
10%	E	G	F	P	G	G
25%	E	G	F	P	G	G
30%	g	g	f	p	g	g
50%	G	G	F	N	G	G
Glacial	N	N	N	N	N	N
Acetic Anhydride	N	N	n	n	N	N
Acetone	N	N	N	N	S	S
Acetophenone	N	N	N	N	S	S
Acetamide (Powder)	G	P	E	E	e	e
Saturated Solution	e	e	e	e	e	e
Acetyl-di-Alanine (Powder)	E	E	E	E	e	e
Acetyl-di-Leucine-n	E	E	E	E	e	e
Acetyl-di-Methionine-n (Powder)	E	E	E	E	e	e
Acetyl-di-Tryptophan-n (Powder)	E	E	E	E	e	e
Acetyl-di-Valine-n (Powder)	E	E	E	E	e	e
Acetylene Tetrabromide	n	n	n	n	n	n
Acetophenetidin	E	E	e	e	e	e
Adipic Acid	e	e	e	e	e	e
Alanine-di	e	e	E	E	e	e
Allyl Alcohol	G	F	f	p	N	N
Aloin (Powder)	g	g	g	g	e	e
Aluminium Acetate	e	e	g	g	e	e
Aluminium Chloride	G	G	g	f	g	g
21%	e	e	e	e	e	e
Saturated	E	E	e	e	e	e
Aluminium Fluoride	G	F	g	f	e	e
Aluminium Hydroxide	g	g	g	g	g	g
Aluminium Oxalate	e	e	g	g	e	e
Aluminium Oxide	e	e	e	e	E	E
Aluminium Potassium Sulfate	G	F	g	f	e	e
Aluminium Sulfate	G	G	g	f	E	E
Saturated	E	G	E	E	e	e

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Aluminium Sodium Sulfate	g	g	g	f	e	e
Amino Acetic Acid (Glycine)	E	E	E	E	e	e
Aminobutric-a-di Acid	E	E	E	E	e	e
Aminoisobutric-2 Acid	E	E	E	E	e	e
Ammonia	G	f	g	f	g	g
Ammonium Acetate (Saturated)	e	e	g	g	e	e
Ammonium Aluminium Sulfate	e	g	G	F	e	e
Ammonium Bicarbonate	e	g	g	g	e	e
Ammonium Bifluoride (Saturated)	E	E	g	f	e	e
Ammonium Bromide	E	E	g	f	E	E
Ammonium Carbonate	e	e	E	P	e	e
Saturated	e	g	g	f	e	e
Ammonium Chloride	G	G	g	f	e	e
Ammonium Dichromate (Saturated)	g	g	g	f	e	e
Ammonium Fluoride 10%	e	g	g	f	e	e
Saturated	g	g	g	f	e	e
Ammonium Glycolate	e	e	g	g	e	e
Ammonium Hydroxide 5%	e	f	f	p	g	g
10%	E	F	f	p	G	P
15%	e	f	f	p	g	p
20%	G	F	f	p	g	p
25%	g	f	f	p	g	p
30%	g	f	f	p	g	p
Concentrated	g	g	f	p	F	p
Ammonium Metaphosphate	g	g	g	g	e	e
Ammonium Molybdate	E	E	G	G	e	e
Saturated	e	e	g	g	e	e
Ammonium Nitrate	G	G	g	g	e	e
Saturated	g	g	g	g	e	e
Ammonium Oxylate	e	e	g	g	e	e
Ammonium Persulfate	G	G	g	f	e	e
Ammonium Phosphate	g	g	g	f	e	e
Ammonium Sulfate	G	G	g	f	e	e
Saturated	g	g	g	f	e	e
Ammonium Sulfocyanide	g	g	g	f	e	e
Ammonium Thiocyanate	G	F	G	G	e	e
Ammonium Thioglycolate	E	E	g	g	e	e

REAGENT CONCENTRATION _{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Amyl-n Alcohol	E	G	G	P	E	N
Amyl Acetate-n	S	S	S	S	N	N
Amyl Chloride	N	N	n	n	n	n
Amyl Phthalate	N	N	N	N	n	n
Aniline	N	N	N	N	S	S
Aniline Sulphate	G	G	g	g	g	g
Anise Seed Oil	N	N	N	N	S	S
Anthranilic Acid	E	E	E	E	e	e
Antimony Trichloride	G	G	g	f	g	g
Aqua Regia (3 parts conc. HCl-1 part conc. HNO ₃)	f	p	f	p	n	n
Arsenic (Concentrated)	e	e	g	g	e	e
Arsenic Trioxide	g	g	g	g	e	e
Aspirin Pills	e	e	e	e	e	e
Powder	E	E	E	G	E	E
Wet Paste	E	E	E	P	e	e
Atropine Sulfate	G	G	G	G	e	e
Barium Bromide	E	E	E	E	e	e
Barium Carbonate	E	E	e	e	E	E
Saturated	e	e	e	e	G	G
Barium Chloride	E	E	E	E	E	E
Saturated	e	e	e	e	G	G
Barium Hydroxide	g	g	g	g	g	g
Barium Sulfate	e	e	g	g	e	e
Barium Sulfide	G	G	g	g	e	e
Beer	G	f	g	f	e	e
Benzaldehyde	N	N	N	N	n	n
1% (in isopropyle alcohol)	E	P	E	P	n	n
5% (in isopropyle alcohol)	P	N	G	N	p	n
10% (in isopropyle alcohol)	P	N	F	N	p	n
Benzene	N	N	N	N	S	S
Benzene Hexachloride-g	n	n	n	n	n	n
20% (Lindane)	N	N	n	N	n	n
Benzene Sulfonic Acid	e	e	g	g	e	e
Benzoic Acid Crystals	E	G	G	F	E	E
Saturated	g	G	F	P	G	G
Benzyl Alcohol	N	N	n	n	n	n
1.5%	g	g	f	f	f	f

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Benzyl Acetate	N	N	n	n	n	n
Bismuth Carbonate	g	g	g	g	e	e
Borax (Powder)	G	F	g	f	E	E
Saturated	E	G	P	P	G	G
Boric Acid	e	e	e	e	E	E
10%	E	G	F	P	e	e
Saturated Solution	E	G	F	P	G	G
Boron Trifluoride	G	F	g	F	g	g
Brine	G	G	g	g	e	e
Bromine	N	N	n	n	n	n
Bromoacetic Acid	P	N	N	N	n	n
Bromobenzene	n	n	n	n	n	n
Bromobutyric-2 Acid	N	N	N	N	n	n
Bromoform	n	n	n	n	n	n
Bromosalicylic-5 Acid (Powder)	E	E	E	E	E	E
Saturated	e	e	f	f	G	G
BromoToluene-m	n	n	n	n	n	n
Butadiene	n	n	n	n	n	n
Butanane-2, 4-p-Methoxy Phenol	N	N	n	n	n	n
Butter	E	E	E	G	E	E
Butyl-n Alcohol	E	G	f	f	E	N
Butyl-sec Alcohol	G	G	f	p	E	N
Butyl-tert Alcohol	E	E	g	f	g	g
Butyl Acetate-n	S	S	S	S	s	s
Butyl Chloride	N	N	n	n	n	n
Butyl-n Stearate	f	f	f	f	E	N
Butylphenol-di-sec	N	N	n	n	n	n
Butylphenol-di-tert	N	N	n	n	n	n
Butylphenol-o-sec	N	N	n	n	n	n
Butylphenol-p-sec	N	N	n	n	n	n
Butylphenol-p-tert	N	N	n	n	n	n
Butyric-n Acid	n	n	n	n	n	n
Butyraldehyde	n	n	n	n	n	n
Cadmium Bromide	E	E	E	E	e	e
Caffeine Citrate (Saturated)	g	g	g	g	e	e
Calcium Bromide	E	E	E	E	e	e
Calcium Carbonate	e	e	g	g	e	e

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Calcium Chlorate	G	G	g	f	e	e
Calcium Chloride (Powder)	e	e	e	e	E	E
15%	e	e	e	e	e	e
Saturated	E	E	E	E	E	G
Calcium Chloride Sulfate	g	g	g	g	e	e
Calcium Hydroxide (Concentrated)	G	G	F	P	g	g
Calcium Hypochlorite (Powder)	E	E	E	G	E	G
20%	G	F	g	f	e	e
Saturated	G	F	F	F	G	G
Calcium Nitrate	g	g	g	f	E	E
Saturated	g	g	g	f	E	E
Calcium Oxide (Powder)	E	E	F	F	E	E
Saturated	g	g	g	f	G	G
Calcium Salicylate	e	e	g	g	E	G
Calcium Sulfate	G	G	g	f	e	g
Camphor Crystals	n	n	n	n	g	g
Camphor Oil	g	f	f	f	E	E
Carbazole	E	E	e	e	e	e
Carbon Bisulfide	N	N	n	n	n	n
Carbon Dioxide	g	g	g	g	g	g
Carbon Monoxide	G	G	g	g	g	g
Carbon Tetrachloride	N	N	N	N	N	N
Carnauba Wax	E	E	G	G	E	E
Carrot Juice	E	F	e	f	e	e
Castor Oil U.S.P.	G	G	G	G	e	e
Catsup	E	G	G	G	E	E
Cedar Leaf Oil	n	n	n	n	N	N
Cedar Wood Oil	N	N	N	N	f	f
CELLOSOLVE Acetate	n	n	n	n	n	n
Cesium Bromide	E	E	E	E	g	g
Cetyl Alcohol	E	E	E	E	g	g
Chlorine 10% in air	F	n	f	n	f	f
100%	N	N	n	n	n	n
10% (Moist)	N	N	n	n	n	n
Chloro-1 Nitropropane-1	n	n	n	n	n	n
Chloro-2-phenylphenol-4	N	N	N	N	n	n
Chloroacetic Acid (Powder)	G	N	P	N	N	N

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Chlorobenzene	N	N	N	N	s	s
Chloroform	S	S	S	S	n	n
Chlorophenol-o	N	N	n	n	n	n
Chlorophenylphenol-4 and -6 mixture	N	N	N	N	n	n
Chloropropionic Acid	N	N	N	N	n	n
Chlorosulphonic Acid	P	N	P	N	f	p
Chromic Acid 10%	e	e	f	p	g	g
20%	G	G	P	P	g	g
50%	f	f	n	n	f	f
Plating solution	N	N	n	n	f	f
Chromic and Sulfuric Acid Mixture	n	n	n	n	n	n
Cider	g	g	g	g	e	e
Cinnamon	e	e	g	g	F	P
Cinnamon Oil	n	n	n	n	n	n
Citric Acid Crystals	e	e	e	e	E	E
10%	E	G	G	F	G	G
Citronella Oil	S	S	N	N	N	N
Cloves (Ground)	n	n	n	n	N	N
Clove Oil	N	N	N	N	n	n
Coconut Oil	G	F	F	N	E	E
Cod Liver Oil	G	F	g	g	e	e
Coffee Ground	g	g	g	g	e	e
Coffee Powder, Instant	E	E	G	G	E	E
Copper Chloride	G	G	g	g	e	e
Saturated	g	g	g	g	e	e
Copper Cyanide	G	G	g	f	e	e
Copper Fluoroborate	g	g	g	f	e	e
Copper Nitrate	G	G	g	f	e	e
Copper Sulfate	F	f	f	f	E	E
Saturated	G	G	G	F	G	G
Corn Oil	G	G	P	P	E	E
Cottonseed Oil	G	F	F	P	E	E
Cranberry Sauce	E	E	g	g	e	e
Cresol	N	N	n	n	n	n
Cresotinic-o Acid	E	E	E	E	G	P
Cumyl Phenol-p	N	N	n	n	n	n
Cuprous Oxide	E	E	G	P	e	e

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Cyanoacetic Acid	E	E	E	E	e	g
Cyclohexyl Alcohol	E	N	E	N	E	N
Cyclohexane	n	n	n	n	N	N
Cyclohexanone	N	N	n	n	S	S
Decalin	N	N	N	N	n	n
Dehydroacetic Acid (Powder)	e	e	f	f	e	g
1%	E	G	F	P	e	p
Diacetone	E	G	F	N	n	n
Dibutoxyethyl Phthalate	n	n	n	n	n	n
Dibutyl Phthalate	N	N	N	N	n	n
Dibutyl Sebacate	n	n	n	n	n	n
Dichlorobenzene-p (PARADOW®)	N	N	N	N	n	n
Dichlorobenzene-o	N	N	N	N	S	S
Dichloro-Diphenyl-Trichloroethane, 75% (D.D.T.)	N	N	n	n	g	n
Diethanolamine	G	G	g	f	E	E
Diethyl Benzene	n	n	n	n	N	N
Diethyl Ether	N	N	N	N	n	n
Diethyl Ketone	S	S	S	S	S	S
Diethyl Malonate	N	N	N	N	n	n
Diethyl Phthalate	N	N	N	N	N	N
Diethylene Glycol	G	G	G	G	E	E
Diethylene Glycol Butyl Ether	N	N	N	N	n	n
Diethylene Glycol Ethyl Ether	N	N	N	N	n	n
Diethylene Glycol Methyl Ether	N	N	F	N	n	n
Diethylene Triamine	F	P	f	p	n	n
Dihydroxyphenyl alanine-34-di-6	E	E	E	E	g	g
Dimethyl-dichloro-vinyl-phosphate	N	n	n	n	n	n
Dimethyl Formamide	N	N	N	N	S	S
Diocetyl Phthalate	n	n	n	n	n	n
Dioxane-1, -4	N	N	N	n	S	S
Diphenyl Amine	N	N	N	N	n	n
Diphenyl Oxide	N	N	N	n	n	n
Dipropylene Glycol	E	E	g	f	E	E
Dipropylene Glycol Methyl Ether	N	N	N	n	n	n
Ethyl Alcohol 40%	G	F	f	f	E	G
Absolute	F	N	f	n	G	N
(Formula 30) (USP)	E	G	g	f	G	N

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
2-B-95%	E	F	G	F	G	N
Ethyl Acetate	S	S	N	N	n	n
85-88%	s	s	n	n	S	S
Ethyl Benzene	N	N	N	N	S	S
Ethyl Benzoate	N	N	n	n	n	n
Ethyl Bromoacetate	N	N	N	N	n	n
Ethyl Butyrate	n	n	n	n	n	n
Ethyl Chloride Gas	N	N	n	n	n	n
Liquide	n	n	n	n	n	n
Ethyl Chloroacetate	N	N	N	N	n	n
Ethyl Cyanoacetate	g	n	G	N	n	n
Ethyl Lactate	F	P	P	N	n	n
Ethyl Monochloro Acetate	n	n	n	n	n	n
Ethyl Salicylate	n	n	n	n	n	n
Ethylene Chloride	n	n	n	n	n	n
Ethylene Chlorohydrin	F	N	f	n	f	n
Ethylene Diamine	F	n	f	n	f	n
Ethylene Dichloride	N	N	n	n	N	N
Ethylene Glycol	E	E	E	E	E	G
Ethylene Glycol Butyl Ether	N	N	N	N	e	n
Ethylene Glycol p-sec-Butylphenyl Ether	N	N	N	N	e	n
Ethylene Glycol p-tert-Butylphenyl Ether	F	N	F	N	f	n
Ethylene Glycol Ethyl Ether	N	N	N	N	n	n
Ethylene Glycol Methyl Ether	P	N	P	N	n	n
Ethylene Glycol Phenyl Ether	N	N	N	N	n	n
Ethylene Oxide	N	N	n	n	n	n
Ethylene Trichloride	n	n	n	n	n	n
Eugenol	n	n	n	n	n	n
Ferric Ammonium Sulfate Crystals	E	E	P	P	E	E
Saturated	e	e	f	p	G	G
Ferric Chloride	E	E	g	f	e	e
40%	g	g	g	f	e	e
Saturated	g	g	g	f	e	g
Ferric Nitrate	G	G	g	f	e	g
Ferric Sulfate	G	G	g	f	e	g
Saturated	g	g	f	f	e	g
Ferrous Ammonium Citrate	e	e	g	f	e	g

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Ferrous Chloride	F	F	P	P	e	g
Saturated	E	G	g	f	e	g
Ferrous Sulfate	G	G	G	F	e	e
15%	g	g	g	f	e	e
40%	g	g	F	P	e	e
Saturated	g	g	f	p	e	e
Fluoboric	g	g	g	g	g	g
Fluorine	N	N	n	n	n	n
Fluosilicic	g	g	g	g	g	g
20%	g	g	G	F	g	g
Formaldehyde 10%	f	p	g	f	e	g
30%	P	N	F	P	E	G
37%	n	n	n	n	p	n
40%	N	N	n	n	p	n
Formic Acid 3%	e	g	g	f	g	g
10%	g	g	f	p	g	g
25%	f	f	p	p	f	f
50%	f	f	p	n	p	p
90%	f	f	P	N	n	n
98-100%	f	f	p	n	n	n
Furaldehyde-2	N	N	n	n	n	n
Furfuryl Alcohol	P	N	F	N	n	n
Gallic Acid (Powder)	E	E	E	G	e	e
Saturated	e	e	e	g	e	e
Gasoline, Aviation	N	N	n	n	e	n
Ethyl	N	N	N	N	e	p
Regular	N	N	N	N	e	p
White	N	N	n	n	e	f
Glycerine	E	E	F	F	E	E
Glycerol Triacetate	n	n	n	n	n	n
Glucose	E	G	G	G	e	e
Grape juice	E	G	F	F	g	g
Grapefruit juice	G	G	P	P	G	G
Concentrated	n	n	n	n	g	g
Heptane-n	N	N	n	n	N	N
Heptyl-2 Alcohol	E	N	G	N	g	f
Hexachlorobenzene	E	E	G	G	e	e

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Hexane	n	n	n	n	e	g
Hexyl-n Alcohol	G	G	g	g	E	N
Hexyl-2 Alcohol	E	G	g	f	e	g
Hydrobromic	G	F	f	f	g	g
40%	g	g	f	f	g	g
50%	G	G	f	f	g	g
Hydrochloric 1%-5%	e	e	f	f	e	e
10%	E	E	F	P	E	G
20%	E	E	f	p	g	g
30%	e	e	p	p	g	g
35% (Concentrated)	F	F	P	P	g	g
Hydrochlorous	f	f	p	p	g	f
Hydrocyanic	g	g	f	f	g	f
Hydrofluoric 4%	g	f	f	f	g	f
40%	G	F	f	p	g	f
48%	N	N	n	n	g	f
Hydrogene	G	G	e	e	e	e
Hydrogene Peroxide 1%	e	g	g	f	e	e
3%	E	G	G	F	G	F
8%	e	g	g	f	g	f
12%	e	g	g	f	g	f
30%	e	g	g	f	F	F
90%	e	g	g	f	f	f
Hydroxylamine Hydrochloride (Concentrated)	e	e	e	e	g	g
Hydroquinone (Powder)	e	g	g	g	g	g
Saturated	E	G	F	F	g	p
Hypochlorous Acid	g	g	f	f	g	g
Isobutyl Alcohol	G	G	g	g	g	f
Iodine Crystals	n	n	n	n	N	N
Iso-octane	p	n	p	n	G	N
Isoleucine-di	E	E	E	E	e	e
Isopropyl Alcohol	E	G	G	G	E	N
Isopropyl Acetate	N	N	n	n	n	n
Isopropyl Benzene	n	n	n	n	S	S
Isopropylphenol-o	N	N	n	n	n	n
Isopropylphenol-p	N	N	n	n	n	n
Kerosene	P	N	N	N	g	g

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Lactic Acid 3%	g	g	g	g	G	G
10%	G	G	G	F	g	g
85%	g	g	g	f	E	E
Lanolin	E	G	g	g	E	E
Lard	E	E	e	e	E	E
Lauryl Alcohol	E	E	G	G	e	e
Lauryl Sulfate	g	g	g	g	g	g
Saturated	g	f	g	f	g	g
Lead Acetate Crystals	E	E	g	g	e	e
Saturated	G	G	P	P	g	g
Lead Arsenate	F	f	f	f	g	g
Lead Nitrate	E	G	F	F	e	e
Lemon Juice	g	g	p	p	g	g
Lemon Oil	N	N	N	N	f	p
Leucine-di (Powder)	E	E	E	E	e	e
Lime Juice (Concentrated)	N	n	n	n	g	g
Linseed Oil Refined	g	g	g	f	e	e
Raw	G	G	N	N	g	g
Boiled	F	F	P	N	g	g
Lithium Bromide (Saturated)	e	g	g	f	g	g
Lysine-Monohydrochloride-di (Powder)	E	E	E	E	g	g
Lysine-Dihydrochloride-di (Powder)	e	e	e	e	g	g
Magnesium Bromide	E	E	E	E	g	g
Magnesium Carbonate	E	E	G	F	g	g
Saturated	e	e	g	f	g	g
Magnesium Chloride	G	G	g	f	g	g
Magnesium Chloride Sulfate	g	g	f	f	g	g
Magnesium Hydroxide	g	g	g	g	g	g
Magnesium Iodide (Saturated)	g	g	g	f	g	g
Magnesium Nitrate	g	g	g	f	g	g
Magnesium Sulfate	E	E	E	E	g	g
10%	g	g	g	f	g	g
20%	g	g	g	f	g	g
Saturated	g	g	g	f	g	g
Maleic Acid	e	g	g	g	g	g
10%	E	G	f	p	g	g
25%	e	e	e	e	g	g

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Margarine	E	E	g	g	E	E
Mercapto Acetic Acid (95%)	g	n	f	n	N	N
Mercuric Chloride	E	G	G	F	g	g
5%	E	G	g	f	g	g
Saturated	G	G	F	P	g	g
Mercuric Cyanide	g	g	g	f	g	g
Mercurous Chloride	G	G	g	f	g	g
Mercurous Nitrate	g	g	g	f	g	g
Mesityl Oxide	N	N	n	n	n	n
Methionine-di (Powder)	E	E	E	G	e	e
Methoxyethyl Oleate	n	n	n	n	n	n
Methyl Acetate (82%)	n	n	n	n	n	n
Methyl Alcohol	F	P	F	N	P	N
Methyl Amyl Alcohol	E	P	E	P	e	e
Methyl Bromide Liquid under 20 psi pressure	n	n	n	n	n	n
Methyl Bromoacetate	N	N	N	N	n	n
Methyl Chloride Liquid under 65 psi pressure	n	n	n	n	n	n
Methylcyclohexane	N	N	N	N	g	g
Methyl Ethyl Ketone	N	N	N	N	S	S
Methyl Eugenol	N	n	n	n	n	n
Methyl Isobutyl Ketone	N	N	N	N	s	s
Methyl Propyl Ketone	S	S	S	S	s	s
Methyl Salicylate	N	N	N	N	N	N
Methylene Bromide	n	n	n	n	n	n
Methylene Chloride	N	N	N	N	n	n
Methylene Chlorobromide	N	N	N	N	n	n
Methylene iodide	n	n	n	n	n	n
Milk Regular	e	e	e	e	G	G
Dried	E	E	E	E	e	e
Wet Paste (Instant)	E	E	G	G	G	G
Mineral Oil USP	E	E	E	e	e	e
Mannitol Alcohol	G	F	g	f	p	n
Mono-Di-Tri-Propylene Glycol-Methyl Ethers	N	N	n	n	n	n
Monoethylaniline	n	n	n	n	n	n
Morpholine	G	G	N	N	n	n
Mustard (Prepared)	E	G	g	g	E	G
Naphtha (VMP)	N	N	N	N	e	n

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Naphthalene Crystals	E	N	E	N	N	N
Vapors	E	N	E	N	n	n
Natural Gas (Wet)	g	g	F	f	g	g
Nickel Chloride	G	G	g	f	e	e
Nickel Nitrate	G	G	g	f	e	e
Nickel Sulfate	G	G	g	f	e	e
Nickel Acid 1%	g	n	g	n	g	g
5%	G	N	g	n	g	g
10%	G	N	g	n	E	P
20%	F	P	F	P	g	p
25%	F	N	f	p	g	p
30%	p	n	p	p	f	p
50%	N	N	p	p	P	N
65%	n	n	n	n	p	n
70% (Concentrated)	P	N	N	N	N	N
Nitrobenzene	N	N	n	n	n	n
Nitroglycerine	E	n	e	n	g	n
Nitrosyl Chloride	n	n	n	n	n	n
Nitrous Acid	n	n	n	n	n	n
Nonyl-n Alcohol	E	E	E	G	E	E
Nutmeg Oil	N	N	N	N	n	n
Octane-n	p	n	n	n	N	N
Octyl-n Alcohol	E	E	F	P	e	g
Octyl Cresol	n	n	n	n	n	n
Oleic Acid	G	G	G	P	E	E
Olive Oil	G	G	G	G	E	E
Orange Juice	e	g	f	f	G	G
Concentrated	n	n	n	n	G	G
Orange Oil	N	n	N	N	G	G
Orange Peelings (Fresh)	n	n	n	n	g	g
Oxalic Acid (Powder)	E	G	G	G	g	g
Saturated	e	g	g	g	g	g
Ozone	f	f	f	f	g	g
Palmitic Acid (Powder)	G	G	G	G	e	e
Palm Oil	G	G	P	P	E	E
Parachlordine	N	N	n	n	f	f
Paraffin Oil	G	G	G	G	E	F

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Paraldehyde	N	N	n	n	N	N
Peanut Butter	E	E	E	F	E	E
Pentachlorophenol	E	G	E	G	g	f
DOWICIDE G Sodium Salt (5%)	F	F	F	N	g	n
DOWICIDE G Sodium Salt (10%)	E	G	E	G	g	f
DOWICIDE G Sodium Salt (Powder)	E	E	E	E	e	e
Pepper (Fresh Ground)	p	n	p	n	P	P
Peppermint Oil	N	N	N	N	N	N
Perchloric Acid	G	F	f	p	g	g
Perchloroethylene	N	N	N	N	N	N
Petroleum Jelly	e	g	g	g	E	E
Phenol Crystals	N	N	n	n	n	n
5%	n	n	n	n	n	n
Phenolsulfonic Acid	g	g	g	f	g	g
Phenoxyacetic Acid	E	E	E	E	e	e
Phenyl Ethyl Alcohol	N	N	N	N	n	n
Phenyl Glycine Potassium Salt	E	E	E	E	e	e
Phenyl Hydrazine	n	n	n	n	f	n
Phenylphenol-o	P	N	G	N	N	N
Phenylphenol-p	E	E	e	e	F	P
Phenylphenol-o Sodium Salt	E	E	E	E	e	n
Phosphoric Acid 1% - 5%	G	G	G	P	g	g
10%	G	G	F	P	G	G
25%	g	g	f	p	g	g
30%	G	G	F	P	g	g
50%	G	G	f	p	g	g
85%	e	G	f	p	E	E
Phosphoric Anhydride	g	g	g	g	g	g
Phthalic Anhydride	G	G	f	f	g	g
Phosphorus Oxychloride	n	n	n	n	n	n
Phosphorus Pentachloride	n	n	n	n	n	n
Phosphorus Trichloride	n	n	n	n	n	n
Picric Acid	g	f	g	f	g	g
Pine Oil	N	n	N	N	N	N
Pine Needle Oil	N	n	n	n	p	n
Polyethylene Glycol Monolaurate	N	n	n	n	E	N
Polyglycol E-300 to E-4000	E	E	E	E	e	e

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Potassium Aluminium Chloride (50%)	e	g	g	f	e	e
Potassium Aluminium Sulfate (Saturated)	E	G	P	P	e	e
Potassium Bicarbonate	G	G	g	f	e	e
Potassium Bisulfate	E	E	g	f	e	e
Saturated	G	G	F	F	e	e
Potassium Borate	g	g	g	f	e	e
Potassium Bromate (Powder)	E	E	E	E	E	E
Saturated Solution	g	g	g	f	G	G
Potassium Bromide	E	E	E	E	e	e
3%	G	g	P	P	e	e
Saturated	G	G	G	F	e	g
Potassium Carbonate	G	G	g	f	e	e
Potassium Chlorate	g	g	g	f	e	e
Potassium Chloride	G	G	g	f	e	e
Potassium Chloride Sulfate	g	g	g	f	e	e
Potassium Cyanide	g	g	g	f	e	e
Potassium Dichromate (Saturated)	G	G	g	f	e	e
Potassium Ferricyanide	E	G	f	p	e	e
25%	g	f	f	f	g	g
Saturated	g	f	F	F	g	g
Potassium Hydroxide	f	f	f	f	E	E
1%	g	g	g	F	g	g
10%	g	g	g	F	g	g
30%	g	g	g	F	g	g
50%	g	g	g	F	g	g
Concentrated	g	g	g	F	E	E
Potassium Iodide	G	F	f	f	g	g
Saturated	E	G	G	G	g	g
Potassium Manganate	G	G	G	G	g	g
Potassium Nitratate	G	G	g	F	g	g
Potassium Permanganate	F	F	f	f	g	f
Saturated	g	g	f	f	g	g
Potassium Persulfate	G	G	g	f	e	e
Potassium Sulfate	E	E	e	e	g	g
Saturated	e	e	g	f	g	g
Potassium Sulfide	E	E	F	P	g	g
Saturated	e	e	g	f	g	g

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Propane Gas	n	n	n	n	g	g
Propargyl Alcohol	F	F	f	p	f	n
Propyl-n Alcohol	E	G	g	f	g	n
Propyl Dichloride	n	n	n	n	n	n
Propylene Dibromide	n	n	n	n	n	n
Propylene Dichloride	N	N	N	N	S	S
Propylene Glycol	E	E	G	G	g	g
Propylene Glycol Methyl Ether	N	N	N	N	n	n
Propylene Oxide	N	N	N	N	n	n
Quinine Sulfate	e	g	g	g	e	e
Resorcinol (Powder)	e	e	e	g	e	e
Saturated	g	f	g	f	e	e
5%	G	F	g	f	g	g
Salicylaldehyde	N	N	n	n	S	S
Salicylic Acid (Powder)	e	e	g	g	e	e
Saturated	E	G	G	G	g	g
Salicylic Ointment	g	g	g	g	g	g
Sassafrass Oil	N	N	N	N	n	n
Serine-di	E	E	E	E	e	e
Sesame Oil	g	g	g	f	e	e
Silver Acetate	G	G	g	f	e	e
Silver Nitrate	G	G	g	f	e	e
Saturated	g	f	f	p	g	f
SKELLY SOLVENT, boiling range 60-70°C	N	N	N	N	N	N
Sodium Acetate (Powder)	e	e	g	g	E	E
Saturated	G	G	G	F	G	G
Sodium Aluminium Sulfate	g	g	G	F	g	g
Saturated	g	g	g	f	g	g
Sodium Benzoate (Powder)	E	E	G	F	e	e
Saturated	g	g	g	f	e	g
Sodium Bicarbonate	G	G	F	P	e	e
Saturated	g	g	g	f	e	e
Sodium Bisulfate	G	G	g	f	e	e
Saturated	g	g	g	f	e	e
Sodium Bisulfite	F	F	f	f	e	e
4%	G	g	G	F	e	e
Saturated	g	g	g	f	e	e

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Sodium Borate	E	G	G	G	e	e
Saturated	E	G	P	P	e	e
Sodium Bromate	g	g	g	f	e	e
10%	E	E	g	f	e	e
Sodium Bromate - Sodium Bromide Mixture	E	E	E	E	e	e
Sodium Bromide	E	E	E	E	g	g
Saturated	E	G	F	F	e	e
Sodium Carbonate	E	E	E	E	E	E
2%	G	G	P	P	e	e
7%	g	g	P	P	e	e
20%	g	g	g	f	e	e
Saturated	G	F	G	F	G	G
Sodium Chlorate	g	g	g	f	e	e
Sodium Chloride	E	E	G	G	E	E
3%	e	e	g	g	e	e
Saturated	g	g	g	g	E	E
Sodium Chloride Sulfate	e	g	g	f	e	e
Sodium Chloroacetate	E	E	E	E	e	e
Saturated	e	e	e	e	e	e
Sodium Dichromate	e	e	e	e	E	E
Saturated	g	g	g	f	E	G
Sodium Ferricyanide	G	G	g	f	e	e
Sodium Fluoride	G	G	G	G	e	e
Saturated	g	g	g	f	e	e
Sodium Hydroxide	g	g	f	f	E	E
1%	G	G	F	F	G	G
10%	G	G	F	F	G	G
25%	g	g	f	f	g	g
30%	G	G	F	F	g	g
35%	G	G	f	f	g	g
50%	G	G	F	F	E	E
Saturated	G	G	F	F	g	g
Sodium Hypochlorite (5% Chlorine)	G	G	G	P	g	g
15%	E	E	G	G	g	g
Sodium Nitrate	E	E	G	G	g	g
Saturated	e	e	g	f	e	e
Sodium Nitrite	G	G	g	f	e	e

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Sodium Perborate	E	G	G	G	e	e
Saturated	E	G	F	P	g	g
Sodium Phosphate	e	g	g	g	e	e
Saturated	G	F	G	P	g	g
Sodium Salicylate (Powder)	e	e	e	e	G	G
Sodium Silicate	g	g	g	f	g	g
Sodium Sulfate	E	E	G	G	e	e
Saturated	e	e	g	g	e	e
Sodium Sulfide	e	e	g	g	e	e
25%	G	G	g	f	e	e
Sodium Sulfite	G	F	f	f	e	e
Saturated	E	G	G	G	e	e
Sodium Tetraborate (Borax) (Powder)	g	g	g	g	E	E
Saturated	g	g	g	g	G	G
Sodium Thiosulfate	e	e	g	g	e	e
Saturated	E	E	G	G	e	e
SORBITOL	e	e	e	e	E	E
Soybean Oil	E	E	F	F	e	e
Spearmint Oil	n	n	n	n	n	n
Sperm Oil	g	f	f	f	E	E
Spermacet	g	g	g	f	e	e
Spruce Oil	n	n	n	n	n	n
Stannic Chloride	G	F	g	f	g	g
Stannous Chloride	G	G	g	f	g	g
Stearic Acid (Crystals)	E	G	G	F	g	f
Strontium Bromide	E	E	E	E	e	e
Strontium Salicylate (Powder)	e	e	g	g	E	E
Saturated	e	e	g	g	E	G
Sucrose	G	F	g	f	e	e
Sulfur Chloride	n	n	n	n	n	n
Sulfur Dioxide Dry	f	p	f	p	g	g
Moist	f	p	f	p	g	g
Liquid (under 46 psi pressure)	n	n	n	n	n	n
Sulfuric Acid 1%-6%	e	g	g	f	G	G
10%	E	G	G	F	G	G
16%	e	g	g	f	g	g
20%	E	G	G	F	g	g

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
30%	E	G	G	F	G	G
40%	G	G	f	f	g	g
50%	E	G	F	F	G	G
60%	g	p	g	p	g	g
70%	G	N	f	f	f	f
80%	g	f	f	p	f	f
90%	N	N	n	n	p	p
96%	N	N	N	N	N	N
Sulfur Ointment	e	e	g	g	g	g
Sulfurous Acid 5%	e	g	g	g	g	g
6%	e	g	g	g	F	F
10%	e	g	g	f	f	f
Concentrated	g	g	N	N	f	f
Sulfur Trioxide	G	G	g	f	g	g
Sulfuryl Chloride	n	n	n	n	n	n
Tannic Acid (Powder)	f	f	p	p	E	E
1%	F	F	P	P	G	F
20%	F	F	P	P	G	F
Saturated	F	F	P	P	G	F
Tartaric (Powder)	E	G	G	G	e	e
Saturated	g	g	g	g	e	e
Tea, Brewed	e	e	g	g	e	e
Moist Leaves	G	G	F	P	E	G
Instant	E	E	f	f	E	E
Instant Paste	e	e	f	f	e	e
Tetrachloroethane	N	N	N	N	n	n
Tetrachlorophenol-2,3,4,6	E	N	E	N	g	n
Tetrahydrofuran	S	S	S	S	S	S
Tetralin	N	N	N	N	S	S
Thioglycolic Acid	e	e	g	g	g	g
Thionyl Chloride	N	N	n	n	n	n
Titanium Tetrachloride	N	N	n	n	g	f
Toluene	N	N	N	N	S	S
Tomato Juice	E	G	F	P	g	g
Tribromoethylbenzene	n	n	n	n	n	n
Trichloroacetic (Crystals)	N	N	N	N	n	n
Trichlorobenzene-1,2,4	N	N	N	N	N	N

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
Trichloroethane	n	n	n	n	S	S
Trichloroethylene	S	s	S	s	s	s
Trichlorophenol-2,4,5	N	N	N	N	n	n
Trichlorophenol, Sodium Salt-2,4,5	E	E	E	E	g	g
Trichlorophenol, Sodium Salt 5%-2,4,5	P	P	P	P	f	n
Tricresyl Phosphate	g	g	f	f	g	g
Triethanolamine	E	E	G	G	E	E
5-50%	e	e	g	g	e	e
Triethylene Glycol	E	G	G	F	E	E
Triethylenetetramine	G	G	f	f	g	g
Tripropylene Glycol	E	E	g	f	g	g
Tripropylene Glycol Methyl Ether	N	N	N	N	n	n
Trisodium Phosphate (Powder)	E	G	g	g	E	E
Saturated	e	g	g	f	G	F
Tryptophan-di (Powder)	E	E	E	E	e	e
Turkey Red Oil	G	G	F	F	e	e
Turpentine	N	N	n	n	N	N
Tyrosine-di (Powder)	E	E	E	E	e	e
Undecyl Alcohol	G	G	E	P	e	e
Urea	e	g	f	f	g	g
Valine-di (Powder)	E	E	E	E	e	e
Vanilla Extract	E	E	g	g	g	f
VASELINE Petroleum Jelly	g	g	g	f	e	e
Vinegar	e	e	g	g	e	e
Vinyl Chloride	n	n	n	n	n	n
Vinylidene Chloride	n	n	n	n	n	n
Walnut Oil	F	F	f	f	E	E
Water	e	e	e	g	e	e
Distilled	E	G	E	G	G	G
Whiskey	g	g	f	f	f	f
Xylene-o	N	N	N	N	S	S
Yeast	g	g	g	g	e	e
Zephran Chloride (Benzalkonium Chloride)	E	E	G	F	g	g
Zinc Bromide	E	E	E	E	g	g
Zinc Carbonate	E	G	e	g	e	e
Saturated	e	g	g	g	e	e
Zinc Chloride (Powder)	G	G	g	g	E	E

REAGENT CONCENTRATION ^{1,2}	Polystyrene resins				ABS Resins	
	General Purpose Grades		High Impact Grades			
Degrees Celsius	25	50	25	50	25	50
50% Solution	E	E	F	F	e	e
Saturated	e	e	f	f	E	E
Zinc Hydrosulfite (10%)	g	g	g	f	e	e
Zinc Oxide	E	E	G	P	e	e
Saturated	e	e	g	f	e	e
Zinc Oxide Ointment	e	e	g	g	e	e
Zinc Sulfate	E	E	g	f	e	e
Saturated	e	e	g	f	e	e
Zinc Stearate	E	E	F	F	G	G

¹ 100% ² For other than 100% concentrations water is the diluent unless otherwise noted

With best regards
Universal Polythex Kunststoffe GmbH