

Chemical resistance

Table Key

- + Resistant
- / Partial Resistant
- Not Resistant

SUBSTANCE	CONCENTRATION	20°C	60°C	100°C	SUBSTANCE	CONCENTRATION	20°C	60°C	100°C
A									
Acetaldehyde	techn grade	/			Bismuth salts		+		
Acetaldehyde, aqueous	any	+	+		Bisulphite liquor		+	+	
Acetamide		+	+		Bitter almond oil		+		
Acetic acid (glacial)	100%	+	/D	-	Borax (sodium tetraborate), aqueous	saturated	+	+	+
Acetic acid (aqueous)	70%	+	+	+	Boric acid, aqueous	any	+	+	+
Acetic acid anhydride techn. Grade	techn grade	+	/D	-	Brake fluid		+	+	
Acetone	100%	+	+(b)		Bromochloromethane		-		
Acetophenone		+	/		Bromic acid	concentrated	/		
Acids, aromatic		+	+		Bromine vapours	high	-		
Acrylnitrile	techn grade	+			Bromine water	cold saturated	/		
Adipic acid, aqueous	saturated	+	+		Bromine, liquid	100%	-		
Air		+	+		1, 3 butadiene, gaseous	techn grade	/	-	
Alcohol (drinking)		+	+	+(b)	Butane, gaseous	100%	+	+	
Allyl alcohol (2-propenol-1), aqueous	96%	+	+		Butane, liquid	100%	+		
Aluminium chloride, aqueous	any	+	+	+	Butanediol, aqueous	any	+	+	
Aluminium hydroxide			+	+	2-butenediol-1, 4	techn grade	+	+	
Aluminium salts, aqueous	any	+	+	+	Butanone		+	/	
Aluminium sulphate, solid		+	+		Butenediol	100%	+	+	
Alums (all types)	aqueous, any	+	+		2-butenediol-1, 4	techn grade	+		
Amino acids		+	+		Buttermilk		+		
2-aminoethanol (ethanolamine)	techn grade	+			Butyl acetate	techn grade	/	-	
Ammonia water	any	+	+		Butyl alcohol		+		
Ammonia , aqueous	10%	+	+		Butyl phenol	techn grade	+		
Ammonia, gaseous	100%	+	+		Butylene (butene), liquid	techn grade	/		
Ammonia, liquid	100%	+			Butylene glycol	techn grade	+		
Ammonium acetate, aqueous	any	+	+	+	Butyric acid, aqueous	any	+		
Ammonium chloride, aqueous	any	+	+	+					
Ammonium fluoride, aqueous	saturated	+	+		C				
Ammonium hydrosulphide, aqueous	any	+	+		Cake		+	+	+
Ammonium metaphosphate		+	+		Calcium carbide		+	+	
Ammonium nitrate, aqueous	any	+	+	+	Calcium carbonate, aqueous	cold saturated	+	+	+
Ammonium phosphate, aqueous	any	+	+	+	Calcium chlorated, aqueous	saturated	+	+	
Ammonium sulphide, aqueous	any	+	+		Calcium hydroxide		+	+	
Amyl acetate	techn grade	/	-		Calcium nitrate, aqueous	cold saturated	+	+	
Aniline	any	+	+		Calcium oxide (powder)		+	+	
Aniline hydrochloride, aqueous	any	+	+		Calcium phosphate		+	+	
Animal oils		+	/		Calcium sulphate		+	+	
Anisole	100%	/	/		Camphor		+		
Anon (cyclohexanone)		+	/		Cane sugar	any	+	+	
Anti-freeze (automotive)	as commercial	+	+	+	Carbazole		+	+	
Antimony chloride, anhydrous		+	+		Carbolic acid (phenol)		+	+D	
Antimony tri-chloride		+	+		Carbolineum	as commercial	+		
Apple juice		+	+		Carbolineum, aqueous (for fruit trees)		+D	/D	
Arsenic acid anhydride		+	+		Carbon dioxide	100%	+	+	
Arsenic acid, aqueous	any	+	+		Carbon tetrachloride (tetrachloromethane)	100%	-		
Ascorbic acid		+	+		Carbonic acid, aqueous	any	+	+	
Asphalt		+	/D		Carbonic acid, dry	100%	+	+	
B									
Barium hydroxide, aqueous	any	+	+		Caustic soda solution	any	+	+	+
Barium salts, aqueous	any	+	+	+	Cetyl alcohol (hexadecanol)		+		
Battery acid		+	+		Choral (trichloracetaldye)	techn grade	+	+	
Beef dripping		+	+		Choral hydrate, aqueous	any	/	-	
Beer		+	+		Chloric acid, aqueous	1%	+	/	-
Beeswax		+	/		Chloric acid, aqueous	20%	+	-	
Benzalhyde, aqueous	any	+			Chlorinated lime		+	+	
Benzene sulphonlic acid			+	+	Chlorine water	cold saturated	/	-	
Benzoid acid, aqueous	any	+	+	+	Chlorine, aqueous solution (chlorine water)	cold saturated	/	-	
Benzoyl chloride			/		Chlorine, gaseous, dry	100%	-		
Benzil chloride			/	+	Chlorine, gaseous, moist		-		
Bichromate-sulphuric acid	concentrated	-			Chlorine liquid	100%	-		
					Chloroacetic acid	100%	+		

Table Key

- + Resistant
- / Partial Resistant
- Not Resistant

Chemical resistance

SUBSTANCE	CONCENTRATION	20°C	60°C	100°C
Chloroacetic acid, aqueous	<85%	+	+	
Chlorobenzene	100%	/	-	
Chloroform	techn grade	/	-	
Chlorsulphonic acid	techn grade	-		
Chrome anode slime		+		
Chromic acid, aqueous	50%	/D	/D	
Chromium salts (dibasic, tribasic), aqueous	saturated	+	+	
Chromium trioxide, aqueous	50%	/D	/D	
Chromium trioxide, aqueous (Chromic acid)	cold saturated	-	-	
Chromospluric acid		-		
Cider		+	+	
Cinnamon		+		
Citric acid, aqueous	saturated	+	+	+
Citrus fruit juices		+	+	
City gas / illuminating gas	as commercial	+		
Clove oil		+	/	
Coal-tar oil		+	D	
Cocoa (prepared)		+	+	+
Cocoa powder		+		
Coconut oil		+	+	
Cod-liver oil		+		
Coffee (prepared)		+	+	+
Cognac		+		
Cola concentrates		+	+	
Coolants and lubricants for metalworking "Hoechst"		/	/	
Copper cyanide, aqueous	saturated	+	+	
Copper fluide, aqueous	saturated	+		
Copper nitrate, aqueous	30%	+	+	
Copper sulphate, aqueous	any	+	+	
Cottonseed oil	techn grade	+	+	
Coumarone resins		+		
Cream, whipped cream		+		
Creosote		+	+D	
Cresol, aqueous	dilute	+	+D	
Crotonaldehyde	techn grade	+		
Cyanide of potash, aqueous	any	+	+	
Cyclanone (fatty alcohol sulphonate)	as commercial	+	+	
Cyclohexane	100%	+		
Cyclohexanol		+	+	
D				
Defoamers		+		
Detergents		+	+	
Detergents, synthetic	end use conc	+	+	+
Developer solutions (photographic)	+D	+D		
Dextrosa		+	+	
1,2-Diaminoethane (ethylenediamine)	techn grade	+	+	
1,2 Dibromoethane		/		
Dibutyl ether		/	-	
Dibutyl sebacate		+		
Dichloroacetic acid	50%	+		
Dichloroacetic acid methyl ester		+	+	
Dichlorobenzene		/		
Dichloroethane		+		
1,1 Dichloroethylene (vinylidene chloride)	techn grade	-		
Diesel fuel / oil	+to /	/		
Diethylen ether	100%	/		

SUBSTANCE	CONCENTRATION	20°C	60°C	100°C
Diethylene glycol		+	+	
Diglycolic acid, aqueous	30%	+	+	
Dihexyl phthalate	techn grade	+	/	
Disobutylketone	techn grade	+	-	
Disopropyl ether	100%	/	-	
Dimethyl formamide	techn grade	+	+	
Dimethylamine		+		
Diocetylphthalate		+	/	
Dioxane		/	/	-
Disodium phosphate		+	+	
Disodium sulphate		+	+	
Drinking water, also chlorinated		+	+	+
E				
Eau de javelle (potassium hypochlorite bleaching solution)			+to /	/
Edible oil, vegetable		+	/	
Emulsifiers		+	+	
Emulsions (photographic)		+	+	
Engine oil		+	/	
Epichlorohydrin		+		
Epsom salt, aqueous	any	+	+	+
Ethanol	96%	+	+	+
Ethanol denatured with toluene	96% (v/v)	+		
Ether		/		
Ethereal oils		/	-	
Ethyl acetate	techn grade	+	/	
Ethyl alcohol	96%	+	+	+
Ethyl alcohol + acetic acid (fermentation mixture) is used in production			+	+
Ethyl benzene	techn grade	/	-	
Ethyl chloride (chloroethane)	techn grade	- (b)		
Ethyl ether (diethyl ether)	techn grade	/		
Ethylene chloride		100%	/	
Ethylene diamine (1,2 - diaminopropane)	techn grade	+	+	
Ethylene dichloride (dichloroethane)		/		
Ethylene glycol		+	+	+
Ethylene oxide, gaseous	techn grade	+		
Ethlenediamine tetraacetic acid		+	+	
F				
Fatty acid amides		+		
Fatty alcohol sulphonate		+		
Fertilizer salts, aqueous	any	+	+	
Fir-needle oil		+	+	
Fish, pickled		+	+	+
Fixing salt, aqueous	any	+	+	
Floor polish		+	/	
Flour		+		
Flourine, gaseous		-		
Formaldehyde, aqueous	up to 40%	+	+	
Formamide		+	+	
Formic acid, aqueous	50%	+	/	
Formic acid, aqueous	98%	+	-	
Fructose (fruit sugar), aqueous	any	+	+	+
Fruit juices	any	+	+	+
Fruit pulp		+	+	
Fruit salad		+		
Fuel oils		/	/	
Furfuryl alcohol		+	/D	

Chemical resistance

Table Key

- + Resistant
- / Partial Resistant
- Not Resistant

SUBSTANCE	CONCENTRATION	20°C	60°C	100°C	SUBSTANCE	CONCENTRATION	20°C	60°C	100°C
G									
Gas, natural and manufactured		+			Lime		+	+	+
Gelatin	techn grade	+	+		Linseed oil	techn grade	+	+	
Grenantin	any	+	+	+	Liquid soaps		+	+	
Gin		+			Lithium bromide		+	+	
Glauber's salt, aqueous		+	+	+	Lubricating oils	techn grade	+		
Glucose, aqueous	any	+	+	+					
Glue	any	+							
Glutin glue		+	+						
Glycerin, aqueous	as commercial	+	+	+					
Glycol	any	+	+	+					
Glycol, aqueous	100%	+	+	+					
Glykokoll	as commercial	+	+						
Grapefruit juice		+	+						
H									
Heptane		/	/		Machine oil		+	/	
n-Hepte		/	/		Magnesium carbonate		+	+	
Hexane	100%	+	/		Magnesium chloride, aqueous	any	+	+	
n-Hexane		+	/		Magnesium iodide		+	+	
Honey	100%	+	+		Magnesium salts, aqueous	any	+	+	+
Horseradish (prepared)		+			Magnesium sulphate, aqueous	any	+	+	
Hydrazine hydrate		+			Maleic acid, aqueous	up to 10%	+	+	
Hydrobromic acid, aqueous		+	+		Manganese sulphate		+		
Hydrocyanic acid	50%	+	+		Mash	as supplied	+	+	
Hydrofluoric acid, aqueous		+	+		Mayonnaise		+		
Hydrogen	40%	+	+		Menthol	100%	+		
Hydrogen chloride gas, dry and moist		+	+D		Mercury salts	cold saturated	+	+	
Hydrogen peroxide, aqueous		+	/		Metal soaps		+		
Hydrogen sulphide, gaseous	30%	+	+		Methacrylic acid		+	+	
Hydroquinone		+D			Methanol	techn grade	+	+	
Hydrosulfite, aqueous		+	+		Methyl acetate (acetic acid methyl ester)	techn grade	+	+	
Hydroxylamine sulphate, aqueous	up to 10%	+	+		Methyl alcohol (methanol)	100%	+	+ (b)	
Hypochlorous acid	12%	+to /	/		Methyl benzene		/	-	
I, J									
Ink		+	+		Methyl bromide (bromomethane), gaseous	techn grade	-		
Iodine in potassium iodide solution	3% iodine	+	+		Methyl chloride (chloromethane), gaseous	techn grade	-		
Iodine tintue, DAB 6	as commercial	+			Methyl ethyl ketone	techn grade	+	/	
Iron (II) chloride, aqueous	saturated	+	+		Methyl glycol		+	+	
Iron (II) sulphate, aqueous	saturated	+	+		4-Methyl pentanol-2		+		
Iron (III) nitrate, aqueous	saturated	+	+		Methyl salicylate (salicylic acid methyl ester)		+		
Iron SALT	saturated	+	+	+	Methyl sulphuric acid	50%	+	+	
Isobutyl alcohol (isobutanol)		+			Methylamine, aqueous	32%	+		
Isoctane		+	/		Methylene chloride (dichloromethane)		/	- (b)	
Isopropanol	techn grade	+	+	+	Milk		+	+	+
Jelly		+	+	+	Milk products		+	+	+
K									
Kerosene		/	/	-	Mineral oil (free from aromatic hydrocarbons)	+	/	-	
Ketone		+to /			Mineral water		+	+	+
Kippers / pickled herring		+			Molasses		+	+	
L									
Lactic acid, aqueous	any	+	+	+	Monochloroacetic acid		+	+	
Lactose (milk sugar)		+	+		Monochloroacetic acid ether ester		+	+	
Lanolin (woolfat)		+	/		Monochlorobenzene		+		
Latex		+	+		Morpholine	100%	+	+	
Lead acetate, aqueous	any	+	+		Motor oil (heavy duty oil)		+	/	
Lead tetraethyl		+							
Lemon juice		+	+						
Lemon oil		+							
N									
Nail polish					Nail polish remover		+	/	
Naphthalene					Nickel chloride		+	+	
Nickel nitrate					Nickel nitrate		+	+	
Nickel salts, aqueous	cold saturated				Nickel sulphated, aqueous	any	+	+	
Nitric acid	10%				Nitric acid	25%	+	/	
Nitric acid	50%				Nitric acid	50%	/	-	

Chemical resistance

Table Key

- + Resistant
- / Partial Resistant
- Not Resistant

SUBSTANCE	CONCENTRATION	20°C	60°C	100°C
Nitric acid	68%	-	-	
Nitrobenzene	100%	+	/	
Nitrocellulose		+		
o-Nitrotoluene		+	/	
Nonyl alcohol (nonanol)		+		
Nut oil		+		
O				
Octyl cresol	techn grade	/	-	
Oils, ethereal		/	-	
Oleic acid	100%	+	/	-
Olive oil		+	+	+
Orange juice		+	+	
Orange oil (sweet)		+		
Oxalic acid, aqueous	cold saturated	+	/	
Oxygen		+	+	
Ozone (<0,5 ppm)		+	/	
Ozone (50pphm)		+	/	
P				
Palm nut oil		+	/	
Palmitic acid		+	+	
Paraffin		+	+	-
Paraffin emulsions	as commercial	+	+	
Paraformaldehyde		+		
Parraffin oil		+	/	-
Pectin	cold saturated	+	+	
Pentanol		+		
Peppermint oil		+		
Pechloric acid, aqueous	20%	+	+	
Perchloroethylene		/	-	
Perfume		+		
Petroleum		+	/	
Petroleum ether		+	/	
Phenol (carbolic acid)		+	+D	
Phenyl ethyl alcohol		+		
Phenyl hydrazine	techn grade	/		
Phenyl hydrazine hydrochloride		+		
Phosgene, gaseous		/	/	
Phosgene, liquid	100%	-		
Phosphates, aqueous	any	+	+	
Phosphoric acid, aqueous	50%	+	+	+
Phosphorus oxychloride	100%	+	/	
Phosphorus trichloride	100%	+		
Photographic developers as commercial		+D	+D	
Photographic emulsions				
as commercial		+	+	
Phthalic acid ester		+	/	
Phthalic acid , aqueous	50%	+	+	
Picric acid, aqueous	1%	+		
Pine-needle oil		+	+	
Pineapple juice		+	+	
Plasticizers		+	/	
Polyester plasticizers		+		
Polyester resins		/		
Polyglycols		+	+	
Potassium borate, aqueous	1%	+	+	
Potassium bromate, aqueous	up to 10%	+	+	+
Potassium carbonate (potash), aqueous	cold saturated	+	+	
Potassium chlorate	any	+	+	+
Potassium chloride	any	+	+	+

SUBSTANCE	CONCENTRATION	20°C	60°C	100°C
Potassium chromate, aqueous	40%	+	+	+
Potassium cyanide, aqueous	any	+	+	
Potassium fluoride, aqueous	any	+	+	
Potassium hydrogen carbonate, aqueous	saturated	+	+	
Potassium hydrogen sulfate, aqueous	saturated	+	+	+
Potassium hydroxide	any	+	+	
Potassium iodide	any	+	+	
Potassium nitrate	any	+	+	
Potassium perchlorate, aqueous	1%	+	+	
Potassium permanganate	up to 6%	+	+D	
Potassium persulphate	any	+	+	
Potassium sulphate	any	+	+	
Potassium sulphite, aqueous	saturated	+	+	
Potassium thiosulphat, aqueous	saturated	+	+	
Potato (mashed)		+	+	
Propane, gaseous	techn grade	+	+	
Propane, liquid	100%	+		
Propanol (propyl alcohol)		+	+	
n-Propanol (n-propyl alcohol)		+	+	
Propargyl alcohol, aqueous	7%	+	+	
Propylene dichloride	100%	-		
Propylene glycol	100%	+	+	
Pyridine	100%	/	/	
Q, R				
Quark		+		
Quinine		+	+	
Raw gasoline		/	-	
Roasting gases, dry	any	+	+	
Rum		+	+	
S				
Salicylic acid		+	+	
Salt brine	saturated	+	+	
Salt water		any	+	+
Salt, dry		+	+	+
Sauerkraut (pickled cabbage)		+	+	+
Sea water		+	+	+
Sewage		+	+	
Shoe polish		+	/	
Silicic acid, aqueous	any	+	+	
Silicone oil	techn grade	+	+	
Silver nitrate, aqueous	any	+	+	
Silver salts, aqueous	cold saturated	+	+	
Soap (bar)		+	+	
Soap solution, aqueous	any	+	+	
Soda water		+		
Sodium acetate, aqueous	any	+	+	+
Sodium aluminium sulphate		+	+	
Sodium benzoate, aqueous	any	+	+	
Sodium borate		+	+	
Sodium bromide		+	+	
Sodium carbonate, aqueous		+	+	+
Sodium chlorate	25%	+	+	
Sodium chloride, aqueous		+	+	+
Sodium chronate		+	+	
Sodium cyanide		+	+	
Sodium dichromate		+	+	
Sodium fluoride		+	+	
Sodium hexacyanoferrate (II)		+	+	
Sodium hexametaphosphate, aqueous	saturated	+	+	

Table Key

- + Resistant
- / Partial Resistant
- Not Resistant

Chemical resistance

SUBSTANCE	CONCENTRATION	20°C	60°C	100°C
Sodium hydrogen sulphite, aqueous	saturated	+	+	
Sodium hydroxide, aqueous	any	+	+	
Sodium hydroxide, solid	100%	+	+	
Sodium Ircyanide		+	+	
Sodium nitrate, aqueous	any	+	+	
Sodium perborate, aqueous	any	+	+	+
Sodium phosphate, aqueous	saturated	+	+	+
Sodium sulphate, aqueous	cold saturated	+	+	+
Sodium sulphide, aqueous	saturated	+	+	
Sodium sulphite, aqueous	40%	+	+	+
Sodium thiosulphate, aqueous	saturated	+	+	
Soft soap		+	+	
Soya bean oil		+	/	
Spermaceti		+		
Spindle oil		+	-	
Spirit of terpine	techn grade	-		
Spirits		+		
Standard grade petrol		/	-	
Starch syrup		+	+	
Stearic acid	100%	+	/	
Styrene		/	-	
Succinic acid, aqueous	cold saturated	+	+	
Sugar beet juice		+	+	+
Sugar solutions	any	+	+	+
Sugar syrup		+	+	+
Sulphates, aqueous solution	any	+	+	
Sulphur	100%	+	+	+
Sulphur dioxide, aqueous	any	+	+	
Sulphur dioxide, gaseous		+	+	
Sulphuric acid	98%	/	-	
Sulphuric acid, aqueous	10%	+	+	+
Sulphuric acid, aqueous	70%	+	/	
Sulphuric acid, aqueous	85%	+	/	
Sulphuric acid, aqueous	up to 50%	+	+	
Sulphuric ether		/		
Sulphurous acid		+	+	
Sulphuryl chloride (sulphonyl chloride)	-			
T				
Tallow	techn grade	+	+	
Tanning extracts vegetable	as commercial	+	/	
Tar		+	/	
Tataric acid, aqueous	cold saturated	+	+	
Tea leaves		+	+	
Terpentine		/	-	
Tetrachlorethane	100%	/	-	
Tetrachlorethylene (perchloroethylene)	100%	/	-	
Tetrahydrofurane	100%	/	-	
Tetrahydronaphthalene (tetrain)	100%	/	-	
Thioglycoic acid		+	+	
Thiophene	100%	/	-	
Tin (II) chloride, aqueous	any	+	+	
Tincture of iodine		+		
Toluene	Techn grade	/	-	
Tomato ketchup		+	+	
Toothpastes		+	+	
Transformer oil	techn grade	+	/	
Tributyl phosphate		+	+	
Trichloroacetaldehyde (chloral)	techn grade	+	+	
Trichloroacetic acid	techn grade	+		

SUBSTANCE	CONCENTRATION	20°C	60°C	100°C
Trichloroethylene	techn grade	/	/	
Tricresyl phosphate		+	/	
Triethanolamine		+	+D	
Triethylene glyco		+	+	
Trimethylol propane, aqueous		+	+	
Tricetyl phosphate		+		
Trisodium phosphate		+	+	
Two-stroke oil		+		
U				
Urea, aqueous	cold saturated	+	+	
Urea, aqueous	up to 33%	+	+	
Uric acid		+		
Urine		+	+	
V				
Vanilla		+		
Vaseline	techn grade	+	/	
Vaseline oil	techn grade	+	/	-
Vegetables		+	+	+
Vinyl acetate		+	/	
Viscose spinning solutions		+	+	
Vitamin C		+		
W				
Walnut oil		+		
Washing-up liquid	ready for use	+	+	+
Washing-up liquid	as commercial	+		
Waste gases containing carbon dioxide		any	+	+
Waste gases containing hydrochloric acid		any	+	+
Waste gases containing sulphur dioxide	low	+	+	
Water	100%	+	+	+
Water glass		+	+	
Water, distilled		+	+	+
Waxes		+	+to /	
Whey		+	+	
Whisky		+		
White spirit		/	-	
Wine		+	+	
Wine Vinegar (table vinegar)	as commercial	+	+	
Wine, mulled		+	+	
X, Y, Z				
Xylene	100%	/	-	
Yeast	any	+		
Zinc carbonate		+	+	
Zinc oxide		+	+	+
Zinc salts, aqueous	any	+	+	
Zinc sludge		+	+	
Zinc stearate		+	+	+