

# Chemical Compatibility Chart

## RATING SYSTEM\*

The following codes are used to rate chemical resistance:

G = Good

F = Fair

P = Poor

N = Not Recommended (some swelling or degradation will probably occur)

\* Unless otherwise agreed upon in writing, Porex products are sold without a chemical resistance warranty. Buyer/user should perform appropriate tests to determine performance under specific operating conditions.

SUBSTANCE AT 21°C (70°F)	HDPE UHMWPE	PP	PVDF	PTFE
Acetaldehyde	G	F	N	G
Acetic acid, 10%	G	G	G	G
Acetic acid, 100% (glacial)	G	G	G	G
Acetic anhydride	G	G	F	G
Acetone	G	G	P	G
Acide, aromatic	G	G	-	G
Acrylonitrile	G	G	F	G
Aallyl alcohol, 96%	G	G	G	G
Aluminum chloride	G	G	G	G
Alum	G	G	G	G
Amonia	G	G	N	G
Ammonia, gaseous	G	G	N	G
Ammonium salts	G	G	G	G
Amyl acetate	G	G	F	G
Anisole	F	F	-	G
Antimony trichloride	G	G	F	G
Aqua regia	N	F	F	G
Beer	G	G	G	G
Beeswax	G	G	-	G
Benzaldehyde	G	G	F	G
Benzene	F	F	G	G
Bensenesulphonic acid	G	G	F	G
Benzoic acid	G	G	G	G
Benzol chloride	F	F	F	G
Borax	G	G	G	G
Boric acid	G	G	G	G
Brine (saturated)	G	G	G	G
Bromine (liquid)	N	N	F	G
Bromochloromethane	N	N	-	-
Butanol	G	G	G	G
Butylacetate	G	F	G	G
Butylene glycol	G	G	G	G
Butyric acid	G	G	G	G
Calcium chloride	G	G	G	G
Calcium hypochlorite	G	G	G	G
Calcium nitrate, 50%	G	G	G	G
Camphor	G	G	-	-
Carbon disulphide	F	G	F	G
Carbon tetrachloride	P	N	G	G
Carbonic acid	G	G	G	G
Castol oil	G	G	G	G
Caustic potash	G	G	G	G
Caustic soda	G	G	N	G
Chloral hydrate	G	F	G	G
Chlorine (liquid)	N	N	G	G
Chlorine gas (dry)	F	N	G	G
Chlorine gas (wet)	F	P	G	G
Chloroacetic acid (mono)	G	G	G	G
Chlorobenzene	F	G	G	G
Chlorethanol	G	G	-	G

SUBSTANCE AT 21°C (70°F)	HDPE UHMWPE	PP	PVDF	PTFE
Chloroform	P	F	G	G
Chlorosulphonic acid	N	N	N	G
Chromic acid, 80%	G	G	G	G
Citric acid	G	G	G	G
Clophen A50 and A6	G	G	-	-
Coconut oil	G	G	G	G
Common salt (aqueous, saturated)	G	G	G	G
Copper salts	G	G	G	G
Corn oil	G	G	G	G
Creosote	G	G	G	G
Cresol	G	G	G	G
Cyclohexane	G	G	G	G
Cyclohexanol	G	G	G	G
Cyclohexnone	G	G	G	G
Dibutyl ether	F	F	-	-
Dibutyl phthalate	G	G	N	G
Dichloroacetic acid, 50%	G	G	G	G
Dichloroacetic acid, 100%	G	G	G	G
Dichloroacetic acid methyl ester	G	G	-	G
Dichlorobenzene-o	F	F	G	G
Dichlorobenzene-p	F	F	G	G
Dichloroethylene	N	G	G	G
Diesel oil	G	F	G	G
Diethyl ether	F	F	F	G
Diisobutyl ketone	G	G	G	G
Dimethylamine	G	G	N	G
Dimethyl formamide	G	G	N	G
Dimethyl sulphoxide	G	G	F	G
Dioxane	G	G	N	G
Emulsifiers	G	G	-	G
Epichlorhydrin	G	G	N	G
Esters, aliphatic	G	F	-	G
Ethanol 96%	G	G	-	G
Ether	F	F	-	G
Ethyl acetate	G	G	N	G
Ethylene chloride (Dichloroethane)	F	F	G	G
Ethylenediaminetetraacetic acid	G	G	-	G
Ethylene glycol	G	G	G	G
Fatty acids (C)	G	G	G	G
Ferric chloride	G	G	G	G
Fluorine	N	N	F	F
Fluosilicic acid	G	F	G	G
Formaldehyde (40% aqueous)	G	G	G	G
Formic acid	G	G	G	G
Frigen®	F	N	-	-
Fruit juices	G	G	-	G
Fruit pulp	G	G	-	G
Fuel oil	G	G	G	G
Furfuryl alcohol	G	G	F	G
Gelatine	G	G	-	G
Glycerine	G	G	G	G
Glycol (concentrated)	G	G	-	G
Glycolic acid, 55%	G	G	F	G
Glycolic acid, 70%	G	G	F	G
Glycolic acid butyl ester	G	G	-	G
Hylothane	F	F	-	-
Hydraulic fluid	G	G	-	G
Hydrazine hydrate	G	G	-	G
Hydrobromic acid, 50%	G	G	G	G
Hydrochloric acid, all conc.	G	G	G	G
Hydrochloric acid gas (dry and wet)	G	G	G	G
Hydrocyanic acid	G	G	G	G
Hydrofluoric acid, 40%	G	G	G	G
Hydrofluoric acid, 70%	G	G	G	G
Hydrogen peroxide, 30%	G	G	G	G
Hydrogen peroxide, 90%	G	G	G	G
Hydrogene sulphide	G	G	G	G
Hydrosulphine (10%, aqueous)	G	G	-	G

# Chemical Compatibility Chart

SUBSTANCE AT 21°C (70°F)	HDPE UHMWPE	PP	PVDF	PTFE
Iodine tincture, DAB 6				
(German Pharmacopoeia)	G	G	G	G
Isocyanate	G	G	-	G
Isopropanol	G	G	-	G
Isopropyl ether	F	F	-	G
Ketones	G	G	-	G
Lactic acid	G	G	G	G
Linseed oil	G	G	G	G
Liquid paraffin	G	G	-	G
Liquid paraffin	G	G	-	G
Magnesium chloride	G	G	G	G
Maleic acid	G	G	G	G
Malic acid, 50%	G	G	G	G
Menthol	G	G	-	G
Mercury	G	G	G	G
Mercuric chlorine (corrosive sublimate)	G	G	G	G
Methanol	G	G	-	G
Methoxybutanol	G	G	-	G
Methoxybutylacetate	G	G	-	G
Methylcyclohexane	F	G	-	G
Methylene chlorine	F	F	N	G
Methyl ethyl ketone	G	G	N	G
Methyl glycol	G	G	-	G
Monochloroacetic acid	G	G	G	G
Monochloroacetic acid ethyl ester	G	G	-	G
Monochloroacetic acid methyl ester	G	G	-	G
Morpholine	G	G	F	G
Motor oil (HD oil)	G	G	-	G
Naphtha	G	F	G	G
Naphthalene	G	G	G	G
Nickel salts	G	G	G	G
Nitric acid, 25%	G	G	G	G
Nitric acid, 50%	F	F	G	G
Nitrobenzene	G	G	F	G
Nitrotoluene	G	G	-	G
Nitrous gases	G	G	G	G
Oils (etheral)	F	F	G	G
Oils (vegetable and animal)	G	G	G	G
Oleic acid, conc.	G	G	G	G
Oleum	N	N	N	G
Oxalic acid, 50%	G	G	G	G
Ozone	F	G	G	G
Perchloric acid, 20%	G	G	G	G
Perchloric acid, 50%	G	G	G	G
Perchloric acid, 70%	G	G	G	G
Petrol	G	F	G	G
Petro/Benzene mixture	G	G	G	G
Petroleum	G	G	G	G
Petroleum ether	G	G	G	G
Phenol	G	G	G	G
Phosphates	G	G	-	G
Phosphoric acid, 25%	G	G	G	G
Phosphoric acid, 50%	G	G	G	G
Phosphoric acid, 95%	G	G	G	G
Phosphorus oxychloride	G	G	G	G
Phosphorus pentoxide	G	G	G	G
Phosphorus trichloride	G	G	G	G
Photographic developers	G	G	G	G
Phthalic acid, 50%	G	G	G	G
Polyglycois	G	G	G	G
Potassium bichromate, 40%	G	G	-	G
Potassium chloride	G	G	G	G
Potassium cyanide (aqueous, saturated)	G	G	G	G

SUBSTANCE AT 21°C (70°F)	HDPE UHMWPE	PP	PVDF	PTFE
Potassium hydroxide (30% aqueous)	G	G	G	G
Potassium nitrate (aqueous, saturated)	G	G	G	G
Potassium permanganate	G	G	G	G
Propionic acid, 50%	G	G	-	G
Propionic acid, 100%	G	G	-	G
Propylene glycol	G	G	-	G
Pseudocumene	G	F	-	G
Pyridine	G	F	N	G
Sea water	F	G	G	G
Silicic acid	G	G	-	G
Silicone oil	G	G	-	G
Silver nitrate	G	G	G	G
Sodium benzoate	G	G	G	G
Sodium borate	G	G	G	G
Sodium carbonate	G	G	G	G
Sodium chloride	G	G	G	G
Sodium chloride, 50%	G	G	G	G
Sodium chloride bleach	F	G	G	G
Sodium dodecylbenzene-Sulphonate	G	G	G	G
Sodium hydroxide-30% aqueous	G	G	G	G
Sodium hypochlorite, all concs.	G	G	G	G
Sodium nitrate	G	G	G	G
Sodium peroxide, 10%	G	G	G	G
Sodium peroxide, 10% saturated	F	F	G	G
Sodium sulphide	G	G	-	G
Sodium thiosulphate	G	G	G	G
Spermaceti	G	G	-	G
Spindle oil	F	G	-	G
Starch	G	G	-	G
Stearic acid	G	G	G	G
Succinic acid, 50%	G	G	G	G
Sugar syrup	G	G	-	G
Sulphates	G	G	-	G
Sulphur	G	G	-	G
Sulphur dioxide (dry)	G	G	G	G
Sulphur dioxide (wet)	G	G	G	G
Sulphuric acid, 10%	G	G	G	G
Sulphuric acid, 50%	G	G	G	G
Sulphuric acid, 98%	F	F	G	G
Sulphurous acid	G	G	-	G
Sulphuryl chloride	N	N	-	G
Synthetic detergents	G	G	-	G
Tallow	G	G	G	G
Tannic acid, 10%	G	G	G	G
Tartaric acid	G	G	G	G
Tetrabromoethane	P	P	G	G
Tetrachloroethane	P	F	-	G
Tetrahydrofuran	P	F	-	G
Toluene	P	G	G	G
Transformer oil	G	G	F	G
Tributyl phosphate	G	G	F	G
Trichloroacetic acid, 50%	G	G	G	G
Trichloroacetic acid, 100%	G	G	G	G
Trichloroethylene	P	F	G	G
Tricresyl phosphate	G	G	N	G
Triethanolamine	G	G	G	G
Turpentine oil	F	N	G	G
Urea, 33%	G	G	G	G
Vaseline®	F	G	G	G
White spirit	F	F	-	G
P-Xylene	F	N	G	G
Yeast	F	G	-	G
Zinc chloride	G	G	G	G



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