PKS CIVIL TECHNICAL GUIDE

Chemical Resistance Table

High Density Polyethylene and Polypropylene

The table below may be used as a guideline for evaluation of chemical resistance of high-density polyethylene (HDPE) and polypropylene (PP), not subjected to mechanical stress, to various fluid at 20 ºC, 60 ºC and 100ºC.

Source: Borouge (www.borouge.com) and other web-site data

Chemical or Product	Concentration	HDPE Temperature, °C		PP Temperature, °C		
		20	60	20	60	100
Acetaldehyde	100%	S	L	L	-	-
Acetanilide	-	S	S	-	-	-
Acetic Acid	10%	S	S	S	S	S
Acetic Acid	Up to 40%	S	-	S	S	-
Acetic Acid	50%	S	-	S	S	L
Acetic Acid	60%	S	S	-	-	-
Acetic Acid, Glacial	Greater than 96%	S	L	S	L	NS
Acetic Anhydride	100%	S	L	S	-	-
Acetone	100%	L	L	S	S	-
Acetophenone	100%	S	S	S	L	-
Acetylsalicylic Acid	-	S	S	-	-	-
Acrylonitrile	100%	S	S	S	-	-
Adipic Acid	Sat. sol	S	S	S	S	-
Air		S	S	S	S	S
Aliphatic Hydrocarbons	-	L	L	NS	NS	NS
Allyl Acetate	-	S	L	-	-	-
Allyl Alcohol	100%	S	S	S	S	-
Allyl Chloride	-	L	NS	-	-	-
Almond Oil	-	-	-	S	-	-
Aluminium Chloride	-	S	S	S	S	-
Aluminium Fluoride	Sat. sol	S	S	S	S	-
Aluminium Hydroxide	Sat. sol	S	S	S	-	-
Aluminium Nitrate	Sat. sol	S	S	S	S	-
Aluminium Oxychloride	Sat. sol	S	S	S	S	-
Aluminium Sulphate	Sat. sol	S	S	S	S	-
Aluminium/Potassium Sulphate	Sat. sol	S	S	S	S	-
Alums	Sol	S	S	S	S	-
Aminobenzoic Acid	-	S	S	-	-	-
Ammonia Aqueous	Sat. sol	S	S	S	S	-
Ammonia Liquid	100%	S	S	S	-	-
Ammonia, Dry Gas	100%	S	S	S	-	-
Ammonium Acetate	-	S	S	S	S	-
Ammonium Bicarbonate	Sat. sol	S	S	S	S	-
Ammonium Carbonate	Sat. sol	S	S	S	S	-
Ammonium Chloride	Sat. sol	S	S	S	S	-
Ammonium Fluoride	Up to 20%	S	S	S	S	-
Ammonium Hexafluorosilicate	Sat. sol	S	S	-	-	-

Chemical or Product	Concentration	HDPE Temperature, °C		PP Temperature, °C		
		20	60	20	60	100
Ammonium Hydroxide	10%	S	S	-	-	-
Ammonium Hydroxide	30%	S	S	-	-	-
Ammonium Metaphosphate	Sat. sol	S	S	S	S	S
Ammonium Nitrate	Sat. sol	S	S	S	S	S
Ammonium Oxalate	Sat. sol	S	S	-	-	-
Ammonium Persulphate	Sat. sol	S	S	S	S	-
Ammonium Phosphate	Sat. sol	S	S	S	-	-
Ammonium Sulphate	Sat. sol	S	S	S	S	S
Ammonium Sulphide	Sol	S	S	S	S	-
Ammonium Thiocyanate	Sat. sol	S	S	S	S	-
Amyl Acetate	100%	L	L	L	-	-
Amyl Alcohol	100%	S	L	S	S	S
Amyl Phthalate	-	S	L	-	-	-
Aniline	100%	S	L	S	S	-
Antimony (Iii) Chloride	Sat. sol	S	S	S	S	-
Antimony (Iii) Chloride	90%	S	S	-	-	-
Antimony Trichloride	Sol	S	S	S	S	-
Apple Juice	Sol	S	L	S	-	-
Aqua Regia	HCl/HNO3=3/1	NS	NS	NS	NS	NS
Aromatic Hydrocarbons	-	NS	NS	NS	NS	NS
Arsenic Acid	Sat. sol	S	S	S	S	-
Ascorbic Acid	10%	S	S	S	S	-
Barium Bromide	Sat. sol	S	S	S	S	S
Barium Carbonate	Sat. sol	S	S	S	S	S
Barium Chloride	Sat. sol	S	S	S	S	S
Barium Hydroxide	Sat. sol	S	S	S	S	S
Barium Sulphate	Sat. sol	S	S	S	S	S
Barium Sulphide	Sat. sol	S	S	S	S	S
Beer	-	S	S	S	S	-
Benzaldehyde	100%	S	L	S	L	-
Benzene	100%	L	L	L	NS	NS
Benzenesulphonic Acid	10%	S	S			
Benzoic Acid	Sat. sol	S	S	S	S	-
Benzoyl Chloride	-	S	L	L	-	-
Benzyl Alcohol	100%	S	S	S	L	-
Bismuth Carbonate	Sat. sol	S	S	S	S	-
Bitumen	-	S	S	S	L	-
Bleach Lye	10%	S	S	-	-	-
Borax	Sat. sol	S	S	S	S	-
Boric Acid	Sat. sol	S	S	S	-	-
Boron Trifluoride	Sat. sol	L	NS	S	-	-
Brake Fluid	-	L	NS	S	S	-
Brine	-	S	S	S	S	-
Bromine, Dry Gas	100%	NS	NS	NS	NS	NS
Bromine, Liquid	100%	NS	NS	NS	NS	NS
Bromoform	100%	NS	NS	-	-	-

Chemical or Product	Concentration	HDPE Temperature, °C		PP Temperature, °C		
		20	60	20	60	100
Butane, Gas	100%	S	S	S	-	-
Butanediol	10%	S	S	-	-	-
Butanediol	60%	S	S	-	-	-
Butanediol	100%	S	S	-	-	-
Butanol	100%	S	S	S	L	L
Butter	-	S	S	S	S	-
Butyl Acetate	100%	S	L	L	NS	NS
Butyl Alcohol	100%	S	S	-	-	-
Butyl Cloride	-	S	-	-	-	-
Butyl Glycol	100%	-	-	S	-	-
Butyl Phenols	Sat. sol	-	-	S	-	-
Butyl Phthalate	100%	-	-	S	L	L
Butylene Glycol	10%	S	S	S	-	-
Butylene Glycol	60%	S	S	S	-	-
Butylene Glycol	100%	S	S	S	-	-
Butyraldehyde	-	S	L	-	-	-
Butyric Acid	100%	S	L	-	-	-
Butyric Acid	20%	-	-	S	-	-
Calcium Arsenate	-	S	S	-	-	-
Calcium Benzoate	-	S	S	-	-	-
Calcium Bisulphide	-	S	S	-	-	-
Calcium Bromate	10%	S	S	-	-	-
Calcium Bromide	Sat. sol	S	S	-	-	-
Calcium Carbonate	Sat. sol	S	S	S	S	S
Calcium Chlorate	Sat. sol	S	S	S	S	-
Calcium Chloride	Sat.sol	S	S	S	S	S
Calcium Chromate	40%	S	S	-	-	-
Calcium Cyanide	-	S	S	-	-	-
Calcium Hydrosulphide	Sol	S	S	-	-	-
Calcium Hydroxide	Sat. sol	S	S	S	S	S
Calcium Hypochlorite	Sol	S	S	S	-	-
Calcium Nitrate	Sat. sol	S	S	S	S	-
Calcium Oxide	Sat. sol	S	S	-	-	-
Calcium Perchlorate	1%	S	S	-	-	-
Calcium Permanganate	20%	S	S	-	-	-
Calcium Persulphate	Sol	S	S	-	-	-
Calcium Sulphate	Sat. sol	S	S	S	S	-
Calcium Sulphide	Dil. sol	L	L	-	-	-
Camphor Oil	-	L	L	NS	NS	NS
Carbon Dioxide, Dry Gas	-	S	S	S	S	-
Carbon Dioxide, Wet Gas	-	S	S	S	S	-
Carbon Disulphide	100%	L	NS	S	NS	NS
Carbon Monoxide	100%	S	S	S	S	-
Carbon Tetrachloride	100%	L	NS	NS	NS	NS
Carbonic Acid		S	S	S	S	-
Castor Oil	100%	S	S	S	S	-

Chemical or Product	Concentration	HDPE Temperature, °C		PP Temperature, °C		
		20	60	20	60	100
Caustic Soda	Up to 50%	S	S	S	L	L
Chlorine, Aqueous	Sat. sol	L	NS	S	L	-
Chlorine, Dry Gas	100%	L	NS	NS	NS	NS
Chlorine, Liquid	100%	-	-	NS	NS	NS
Chlorine, Water	2% sat. sol	S	S	-	-	-
Chloroacetic Acid	Sol	S	S	S	-	-
Chlorobenzene	100%	NS	NS	L	-	-
Chloroethanol	100%	S	S	S	-	-
Chloroform	100%	NS	NS	L	NS	NS
Chloromethane, Gas	100%	L	-	-	-	-
Chloropropene	-	L	-	-	-	-
Chlorosulphonic Acid	100%	NS	NS	NS	NS	NS
Chrome Alum	Sol	S	S	S	S	-
Chromic Acid	50%	S	L	-	-	-
Chromic Acid	Up to 40%	S	L	S	L	NS
Chromium (Vi) Oxide	Sat. sol	S	S	-	-	-
Cider	-	S	S	S	S	-
Citric Acid	Sat. sol	S	S	S	S	S
Citric Acid	10%	S	S	S	S	S
Citric Acid	25%	S	S	S	S	S
Coconut Oil	-	-	-	S	-	-
Coconut Oil Alcoholic	-	S	S	-	-	-
Coffee	-	S	S	S	S	-
Copper (Ii) Chloride	Sat. sol	S	S	S	S	-
Copper (Ii) Cyanide	Sat. sol	S	S	S	S	-
Copper (Ii) Fluoride	Sat. sol	S	S	S	-	-
Copper (Ii) Fluoride	2%	S	S	S	S	-
Copper (Ii) Nitrate	Sat. sol	S	S	S	S	S
Copper (Ii) Sulphate	Sat. sol	S	S	S	S	-
Corn Oil	-	S	S	S	L	-
Cottonseed Oil	-	S	S	S	S	-
Cresols	Greater than 90%	S	S	S	-	-
Cresylic Acid	Sat. sol	L	-	-	-	-
Cyclanone	-	S	S	-	-	-
Cyclohexane	-	NS	NS	S	-	-
Cyclohexanol	100%	S	S	S	L	-
Cyclohexanone	100%	S	L	L	NS	NS
Decalin (Decahydronaphthalene)	100%	S	L	L to NS	NS	NS
Decane	-	L	NS	-	-	-
Detergents, Synthetic	-	S	S	S	S	-
Developers (Photographic)	Work. conc	S	S	-	-	-
Dextrin	Sol	S	S	S	S	-
Dextrose	Sol	S	S	S	S	S
Diacetone Alcohol	-	L	L	-	-	-
Diazo Salts	-	S	S	-	-	-
Dibutyl Amine	-	L	NS	-	-	-

Chemical or Product	Concentration	HDPE Temperature, °C		PP Temperature, °C		
		20	60	20	60	100
Dibutyl Ether	-	L	-	L	-	-
Dibutyl Phthalate	100%	S	L	S	L	NS
Dichloroacetic Acid	100%	-	-	L	-	-
Dichlorobenzene	-	NS	NS	L	NS	-
Dichloroethylenes	100%	NS	NS	L	-	-
Dichloropropylene	-	NS	NS	-	-	-
Diesel Oil	-	S	L	L	NS	-
Diethanolamine	100%	S	-	S	-	-
Diethyl Ether	100%	L	-	S	L	-
Diethyl Ketone	-	L	L	-	-	-
Diethylene Glycol	-	S	S	S	S	-
Diglycolic Acid	-	S	S	S	-	-
Diisobutylketone	100%	S	L	-	-	-
Diisooctyl Phthalate	100%	-	-	S	L	-
Dimethyl Amine	100%	S	L	S	-	-
Dimethyl Formamide	100%	S	S	S	S	-
Dioctyl Phthalate	100%	S	L	L	L	-
Dioxane	100%	S	S	L	L	-
Dipentene	-	NS	NS	-	-	-
Disodium Phosphate	-	S	S	S	S	-
Distilled Water	100%	S	S	S	S	S
Drano, Plumbing Cleaner	-	S	S	-	-	-
Emulsions, Photographic	-	S	S	S	S	-
Ethandiol	100%	S	S	-	-	-
Ethanol	35%	S	S	-	-	-
Ethanol	100%	S	S	-	-	-
Ethanol	Up to 95%	-	-	S	S	S
Ethanolamine	100%	-	-	S	-	-
Ethyl Acetate	100%	S	NS	L	NS	NS
Ethyl Acrylate	100%	L	NS	-	-	-
Ethyl Benzene	-	NS	NS	L	NS	-
Ethyl Chloride	100%	NS	NS	NS	NS	NS
Ethyl Ether	100%	L	-	S	L	-
Ethyl Mercaptan	-	NS	NS	-	-	-
Ethylene Chloride	100%	NS	NS	L	L	-
Ethylene Diamine	100%	S	S	S	-	-
Ethylene Glycol	100%	S	S	S	S	S
Ferric Chloride	Sat. sol	S	S	S	S	S
Ferric Nitrite	Sat. sol	S	S	S	S	S
Ferric Sulphate	Sat. sol	S	S	S	S	S
Ferrous Chloride	Sat. sol	S	S	S	S	S
Ferrous Sulphate	Sat. sol	S	S	S	S	-
Fish Solubles	Sol	S	S	-	-	-
Fluoboric Acid	-	S	S	-	-	-
Fluorine Gas, Dry	100%	NS	NS	NS	NS	-
Fluorine Gas, Wet	100%	NS	NS	NS	NS	-

Chemical or Product	Concentration	HDPE Temperature, °C		PP Temperature, °C		
		20	60	20	60	100
Fluorosilicic Acid	40%	S	S	-	-	-
Fluorosilicic Acid	Conc	S	L	-	-	-
Formaldehyde	40%	S	S	S	-	-
Formic Acid	50%	S	S	S	-	-
Formic Acid	98 to 100%	S	S	-	-	-
Formic Acid	10%	S	S	S	S	L
Formic Acid	85%	S	S	S	NS	NS
Formic Acid, Anhydrous	100%	-	-	S	L	L
Fructose	Sat. sol	S	S	S	S	S
Fruit Juice	Sol	S	S	S	S	S
Fruit Pulps	Sol	S	S	-	-	-
Furfural	100%	NS	NS	L	-	-
Furfuryl Alcohol	100%	S	L	S	L	-
Gallic Acid	Sat. sol	S	S	-	-	-
Gasoline, Petrol	-	L	L	NS	NS	NS
Gelatine	-	S	S	S	S	-
Glucose	Sat. sol	S	S	-	-	-
Glucose	20%	-	-	S	S	S
Glycerine	100%	S	S	S	S	S
Glycerol	100%	S	S	S	S	S
Glycolic Acid	30%	S	S	S	-	-
Glycolic Acid	Sol	S	S	-	-	-
Heptane	100%	L	NS	L	NS	NS
Hexachlorobenzene	-	S	L	-	-	-
Hexachlorphene	-	L	L	-	-	-
Hexane	100%	S	L	S	L	-
Hexanetriol	-	S	S	S	S	-
Hydrobromic Acid	Up to 100%	S	S	-	-	-
Hydrobromic Acid	Up to 48%	S	S	S	L	NS
Hydrochloric Acid	Conc	S	S	S	-	-
Hydrochloric Acid	Up to 20%	S	S	S	S	S
Hydrochloric Acid	30%	S	S	S	L	L
Hydrocyanic Acid	Sat. sol	S	S	-	-	-
Hydrocyanic Acid	10%	S	S	S	S	-
Hydrofluoric Acid	Up to 40%	S	S	S	-	-
Hydrofluoric Acid	60%	S	L	-	-	-
Hydrogen	100%	S	S	S	-	-
Hydrogen Chloride	Dry gas	S	S	S	S	-
Hydrogen Chloride	Wet gas	S	S	S	S	-
Hydrogen Peroxide	Up to 30%	S	S	S	L	-
Hydrogen Peroxide	90%	S	NS	-	-	-
Hydrogen Sulphide	Dry gas	S	S	S	S	-
Hydroquinone	Sat. sol	S	S	S	S	-
Hydroxylamine	Up to 12%	S	S	S	S	-
Inks	-	S	S	S	S	-
Iodine (In Alcohol)	-	NS	NS	S	-	-

Chemical or Product	Concentration	HDPE Temperature, °C		PP Temperature, °C		
		20	60	20	60	100
Iron (Ii) Chloride	Sat. sol	S	S	-	-	-
Iron (Ii) Nitrate	Sol	S	S	-	-	-
Iron (Ii) Sulphate	Sat. sol	S	S	-	-	-
Iron (Iii) Chloride	Sat. sol	S	S	-	-	-
Iron (Iii) Sulphate	Sat. sol	S	S	-	-	-
Isooctane	100%	S	L	L	NS	NS
Isopentane	-	NS	NS	-	-	-
Isopropanol	100%	S	S	S	S	S
Isopropyl Ether	100%	S	NS	L	-	-
Isopropylamine	-	NS	NS	-	-	-
Kerosene	-	NS	NS	L	NS	NS
Lactic Acid	Up to 90%	S	S	S	S	-
Lactic Acid	Up to 100%	S	S	-	-	-
Lanoline	-	-	-	S	L	-
Latex	-	S	S	S	S	-
Lead Acetate	Sat. sol	S	S	S	S	-
Lead Acetate	Dil. sol	S	S	S	S	-
Lead Arsenate	-	S	S	-	-	-
Linseed Oil	-	-	-	S	S	S
Lubricating Oil	-	S	S	S	L	-
Lysol	-	L	NS	S	L	-
Magnesium Carbonate	Sat. sol	S	S	S	S	S
Magnesium Chloride	Sat. sol	S	S	S	S	-
Magnesium Hydroxide	Sat. sol	S	S	S	S	-
Magnesium Nitrate	Sat. sol	S	S	S	S	-
Magnesium Sulphate	Sat. sol	S	S	S	S	-
Maleic Acid	Sat. sol	S	S	S	S	-
Malic Acid	Sat. sol	S	S	S	S	-
Mercury	100%	S	S	S	S	-
Mercury (I) Nitrate	Sol	S	S	S	S	-
Mercury (Ii) Chloride	Sat. sol	S	S	S	S	-
Mercury (Ii) Cyanide	Sat. sol	S	S	S	S	-
Methanol	100%	S	S	S	-	-
Methanol	5%	-	-	S	L	L
Methoxybutanol	100%	S	L	-	-	-
Methyl Acetate	100%	S	S	S	S	-
Methyl Amine	Up to 32%	-	-	S	-	-
Methyl Benzoic Acid	Sat. sol	L	-	-	-	-
Methyl Bromide	100%	NS	NS	NS	NS	NS
Methyl Chloride	100%	NS	NS	NS	NS	NS
Methyl Ethyl Ketone	100%	S	L	S	-	-
Methylcyclohexane	-	L	NS	L	NS	NS
Methylene Chloride	100%	NS	NS	L	NS	NS
Milk	-	S	S	S	S	S
Mineral Oils	-	S	L	S	L	NS
Molasses	Work. conc	S	S	S	S	-

Chemical or Product	Concentration	HDPE Temperature, °C		PP Temperature, °C		
		20	60	20	60	100
Monochloroacetic Acid	> 85%	-	-	S	S	-
Motor Oil	-	S	S	S	L	-
Naphtha	-	L	NS	S	NS	NS
Naphthalene	-	L	-	L	-	-
Nickel Chloride	Sat. sol	S	S	S	S	-
Nickel Nitrate	Sat. sol	S	S	S	S	-
Nickel Sulphate	Sat. sol	S	S	S	S	-
Nicotine	Dil. sol	S	S	-	-	-
Nicotinic Acid	Dil. sol	S	-	-	-	-
Nitric Acid	From 40 to 50%	L	NS	L	NS	NS
Nitric Acid	25%	S	S	S	NS	NS
Nitric Acid, Fuming (With Nitrogen Dioxide)	-	NS	NS	NS	NS	NS
Nitrobenzene	100%	NS	NS	S	L	-
Nitroethane	100%	S	NS	-	-	-
Nitromethane	100%	S	-	-	-	-
Nitrotoluene	-	NS	NS	S	L	-
N-Octane	-	S	S	-	-	-
N-Propanol	-	S	S	S	S	-
Octyl Alcohol	-	S	NS	-	-	-
Oil And Fats	-	S	L	S	L	-
Oleic Acid	100%	S	S	S	L	-
Oleum	-	NS	NS	NS	NS	NS
Olive Oil	-	S	NS	S	S	L
Orthophosphoric Acid	50%	S	S	-	-	-
Orthophosphoric Acid	95%	S	L	-	-	-
Oxalic Acid	Sat. sol	S	S	S	L	NS
Oxygen, Gas	-	S	L	S	-	-
Ozone	100%	L	NS	L	NS	-
Paraffin Oil	-	S	S	S	L	NS
Peanut Oil		-	-	S	S	-
Pentane	-	NS	NS	-	-	-
Peppermint Oil		-	-	S	-	-
Perchloric Acid	20%	S	S	S	S	-
Perchloric Acid	50%	S	L	-	-	-
Perchloric Acid	70%	S	NS	-	-	-
Perchloroethylene	-	NS	NS	L	NS	-
Petroleum Ether (Ligroine)		NS	NS	L	L	-
Phenol	90%	S	S	S	-	-
Phosphine, Gas		S	S	S	S	-
Phosphoric Acid	Up to 85%	S	S	S	S	S
Phosphorus (Ii) Chloride	100%	S	L	-	-	-
Phosphorus (Iii) Chloride	100%	S	L	-	-	-
Phosphorus Oxychloride	100%	-	-	L	-	-
Phosphorus Pentoxide	100%	S	S	S	S	-
Phosphorus Trichloride	100%	S	L	L	-	-

Chemical or Product	Concentration	HDPE Temperature, °C		PP Temperature, °C		
		20	60	20	60	100
Photographic Solutions	-	S	S	S	L	-
Phthalic Acid	50%	S	S	S	S	-
Picric Acid	Sat. sol	S	-	S	-	-
Plating Solutions	-	S	S	-	-	-
Potassium Acetate	-	S	S	-	-	-
Potassium AluminiumSulphate	Sat. sol	S	S	-	-	-
Potassium Benzoate	-	S	S	-	-	-
Potassium Bicarbonate	Sat. sol	S	S	S	S	S
Potassium Bisulphate	Sat. sol	S	S	S	S	-
Potassium Bisulphite	Sol	S	S	S	-	-
Potassium Borate	Sat. sol	S	S	S	S	-
Potassium Bromate	Sat. sol	S	S	-	-	-
Potassium Bromate	Up to 10%	S	S	S	S	-
Potassium Bromide	Sat. sol	S	S	S	S	-
Potassium Carbonate	Sat. sol	S	S	S	S	-
Potassium Chlorate	Sat. sol	S	S	S	S	-
Potassium Chloride	Sat. sol	S	S	S	S	-
Potassium Chromate	Sat. sol	S	S	S	S	-
Potassium Cyanide	Sol	S	S	S	-	-
Potassium Dichromate	Sat. sol	S	S	S	S	S
Potassium Ferricyanide	Sat. sol	S	S	S	S	-
Potassium Ferrocyanide	Sat. sol	S	S	S	S	-
Potassium Fluoride	Sat. sol	S	S	S	S	-
Potassium Hydroxide	Up to 50%	S	S	S	S	S
Potassium Hypochlorite	Sol	S	L	-	-	-
Potassium Iodate	10%	S	S	-	-	-
Potassium Iodide	Sat. sol	S	S	S	-	-
Potassium Nitrate	Sat. sol	S	S	S	S	-
Potassium Orthophosphate	Sat. sol	S	S	-	-	-
Potassium Oxalate	Sat. sol	S	S	-	-	-
Potassium Perchlorate	Sat. sol	S	S	-	-	-
Potassium Perchlorate	10%	S	S	S	S	-
Potassium Permanganate	20%	S	S	-	-	-
Potassium Permanganate	(2 N) 30%	-	-	S	-	-
Potassium Persulphate	Sat. sol	S	S	S	S	-
Potassium Phosphate	Sat. sol	S	S	-	-	-
Potassium Sulphate	Sat. sol	S	S	S	S	-
Potassium Sulphide	Sat. sol	S	S	S	S	-
Potassium Sulphite	Sat. sol	-	-	S	S	-
Potassium Thiocyanate	Sat. sol	S	S	-	-	-
Potassium Thiosulphate	Sat. sol	S	S	S	S	-
Potassium Hexafluorosilicate	Sat. sol	S	S	-	-	-
Propane, Gas	100%	-	-	S	-	-
Propargyl Alcohol	-	S	S	-	-	-
Propionic Acid	50%	S	S	S	-	-
Propionic Acid	100%	S	L	S	-	-

Chemical or Product	Concentration	HDPE Temperature, °C		PP Temperature, °C		
		20	60	20	60	100
Propylene Dichloride	100%	NS	NS	NS	NS	-
Propylene Glycol	-	S	S	S	S	-
Pyridine	100%	S	L	L	-	-
Quinol (Hydroquinone)	Sat. sol	S	S	-	-	-
Resorcinol	Sat. sol	S	S	S	S	-
Salicylic Acid	Sat. sol	S	S	S	S	-
Sea Water	-	S	S	S	S	S
Selenic Acid	-	S	S	-	-	-
Sewage (Residential)	-	S	S	S	S	-
Silicon Oil	-	S	S	S	S	S
Silver Acetate	Sat. sol	S	S	S	S	-
Silver Cyanide	Sat. sol	S	S	S	S	-
Silver Nitrate	Sat. sol	S	S	S	S	L
Soap Solution	100%	S	S	S	S	-
Sodium Acetate	Sat. sol	S	S	S	S	S
Sodium Antimonate	Sat. sol	S	S	S	S	-
Sodium Arsenite	Sat. sol	S	S	S	S	-
Sodium Benzoate	Sat. sol	S	S	-	-	-
Sodium Benzoate	35%	S	S	S	L	-
Sodium Bicarbonate	Sat. sol	S	S	S	S	S
Sodium Bisulphate	Sat. sol	S	S	S	S	-
Sodium Bisulphite	Sat. sol	S	S	S	S	-
Sodium Borate	-	S	S	S	S	L
Sodium Bromide	Sat. sol	S	S	S	S	-
Sodium Carbonate	Sat. sol	S	S	S	S	-
Sodium Chlorate	Sat. sol	S	S	S	S	-
Sodium Chloride	Sat. sol	S	S	S	S	-
Sodium Chlorite	2%	-	-	S	L	NS
Sodium Chlorite	20%	-	-	S	L	NS
Sodium Cyanide	Sat. sol	S	S	S	-	-
Sodium Dichromate	Sat. sol	S	S	S	S	S
Sodium Ferricyanide	Sat. sol	S	S	-	-	-
Sodium Ferrocyanide	Sat. sol	S	S	S	S	-
Sodium Fluoride	Sat. sol	S	S	S	S	-
Sodium Hexafluorosilicate	Sat. sol	S	S	-	-	-
Sodium Hydroxide	Sol	S	S	S	S	S
Sodium Hypochloride	-	S	S	-	-	-
Sodium Hypochlorite	5%	S	S	S	S	-
Sodium Hypochlorite	10% - 15%	S	S	S	-	-
Sodium Hypochlorite	15% available Cl	S	S	-	-	-
Sodium Hypochlorite	20%	-	-	L	L	NS
Sodium Iodate	10%	S	S	-	-	-
Sodium Iodide	Sat. sol	S	S	-	-	-
Sodium Metaphosphate	Sol	-	-	S	-	-
Sodium Nitrate	Sat. sol	S	S	S	S	-
Sodium Nitrite	Sat. sol	S	S	S	S	-

Chemical or Product	Concentration	HDPE Temperature, °C		PP Temperature, °C		
		20	60	20	60	100
Sodium Ortophosphate	Sat. sol	S	S	-	-	-
Sodium Oxalate	Sat. sol	S	S	-	-	-
Sodium Perborate	Sat. sol	-	-	S	S	-
Sodium Phosphate	Sat. sol	S	S	S	S	S
Sodium Silicate	Sol	S	S	S	S	-
Sodium Sulphate	Sat. sol	S	S	S	S	-
Sodium Sulphide	Sat. sol	S	S	S	-	-
Sodium Sulphite	Sat. sol	S	S	S	S	-
Sodium Thiocyanate	Sat. sol	S	S	-	-	-
Sodium Thiosulphate(Hyposulphate)	Sat sol	-	-	S	-	-
Soybean Oil		-	-	S	L	-
Stannic Chloride	Sat. sol	S	S	S	S	-
Stannous Chloride	Sat. sol	S	S	S	S	-
Starch Solution	Sat. sol	S	S	S	S	-
Stearic Acid	Sat. sol	S	-	S	L	-
Styrene	Sol	L	NS	L	NS	-
Succinic Acid	Sat. sol	-	-	S	S	-
Sulphur Dioxide	Dry gas	S	S	S	S	-
Sulphur Dioxide	Wet gas	-	-	S	S	-
Sulphur Trioxide	100%	NS	NS	NS	-	-
Sulphuric Acid	30%	S	S	S	S	-
Sulphuric Acid	98%	L	NS	L	NS	NS
Sulphuric Acid	Fuming	NS	NS	L	NS	NS
Sulphuric Acid	Up to 10%	S	S	S	S	S
Sulphuric Acid	50%	S	S	S	L	L
Sulphuric Acid	70%	S	L	S	L	L
Sulphuric Acid	80%	S	NS	S	L	L
Sulphuric Acid	96%	L	NS	S	L	NS
Sulphurous Acid	Sol	S	S	S	S	-
Tallow	-	S	L	S	S	-
Tannic Acid	Sol	S	S	S	S	-
Tartaric Acid	Sat. sol	S	S	S	S	-
Tetrachlormethane	100%	L	NS	-	-	-
Tetrachloroethylene	100%	NS	NS	NS	NS	-
Tetradecane		NS	NS	-	-	-
Tetrahydrofuran	100%	NS	NS	L	NS	NS
Tetrahydronaphthalene	100%	S	L	L	NS	NS
Tetralin	100%	-	-	NS	NS	NS
Thionyl Chloride	100%	NS	NS	NS	NS	-
Thiophene	100%	-	-	S	L	-
Tin (Ii) Chloride	Sat. sol	S	S	S	S	-
Tin (Iv) Chloride	Sol	S	S	S	S	-
Titanium Tetrachloride	Sat. sol	NS	NS	-	-	-
Toluene	100%	L	NS	L	NS	NS
Tribromomethane	-	NS	NS	-	-	-
Trichloroacetaldehyde	-	S	-	-	-	-

Chemical or Product	Concentration	HDPE Temperature, °C		PP Temperature, °C		
		20	60	20	60	100
Trichlorobenzene	Pure	-	-	NS	NS	NS
Trichloroethylene	100%	NS	NS	NS	NS	NS
Tricholoroacetic Acid	50%	S	S	S	S	-
Triethanolamine	Sol	S	L	S	-	-
Triethylene Glycol	-	S	S	S	-	-
Trisodium Phosphate	Sat. sol	S	S	S	S	-
Turpentine	-	NS	NS	NS	NS	NS
Urea	Sol	S	S	-	-	-
Urea	Sat. sol	-	-	S	S	-
Urine	-	S	S	S	S	-
Vanilla Extract	-	S	S	-	-	-
Vaseline	-	S	S	S	L	-
Vegetable Oils	-	S	S	S	S	-
Vinegar	-	S	S	S	S	-
Water: Sea, Brackish, Potable, Fresh, Mineral, Distilled	-	S	S	S	S	S
Wetting Agents	-	S	S	-	-	-
Whiskey	-	S	S	S	S	-
Wines	-	S	S	S	S	-
Wines And Spirits	-	S	S	S	S	-
Xylenes	100%	L	NS	NS	NS	NS
Yeast	Sol	S	S	S	S	S
Zinc Bromide	Sat. sol	S	S	S	S	-
Zinc Carbonate	Sat. sol	S	S	S	S	-
Zinc Chloride	Sat. sol	S	S	S	S	-
Zinc Oxide	Sat. sol	S	S	S	S	-
Zinc Stearate	-	S	S	S	S	-
Zinc Sulphate	Sat. sol	S	S	S	S	-

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S – satisfactory; L – limited; NS – not satisfactory