Chemical Resistance

Description	% Conc.	LLDPE/LDPE/HDPE 70°F	LLDPE/LDPE/HDPE 140°F	XLPE1 70°F	XLPE1 140°F	PP 70°F	PP 140°F	PVDF 70°F	PVDF 140°F	FRP 70°F	FRP 140°F	PVC 70°F	PVC 140°F	EPDM 70°F	NEOPRENE 70°F	VITON® 70°F	316 STAINLESS 70°F
Acetaldehyde*	40	U	U	U	U	U	U	U	U	U	U	U	U	S	U	U	S
Acetamide		—	—	—	—	S	U	S	U	–	–	–	–	S	S	S	S
Acetic Acid*/**	1-79	U	U	S	S	U	U	S	S	S	S	S	S	U	U	U	S
Acetic Acid*/**	80-100	U	U	S	U	U	U	S	U	S	U	U	U	–	–	–	S
Acetic Anhydride		U	U	U	U	U	U	–	U	U	U	–	U	U	S	S	U
Acetone*†		U	U	U	U	U	U	U	U	U	U	U	U	S	U	U	S
Acrylic Emulsions*		U	U	S	U	U	U	–	–	S	U	–	–	–	–	–	–
Acrylonitrile		—	—	—	—	S	U	S	U	–	–	U	U	U	U	U	S
Adipic Acid		S	S	S	S	S	S	S	S	S	–	S	S	–	–	–	S
Alcohol:																	
Allyl*		U	U	S	S	S	S	S	S	S	S	U	U	–	–	–	–
Amyl*/**		S	S	S	S	S	U	S	S	S	S	U	U	S	S	S	S
Bensyl*		–	–	–	–	S	S	S	S	–	–	U	U	U	U	S	S
Butyl*		U	U	S	S	S	S	S	S	S	S	S	–	S	S	S	S
Diacetone*		–	–	–	–	S	–	S	U	–	–	–	–	S	S	U	S
Ethyl*		U	U	S	S	S	S	S	S	S	S	S	S	–	S	S	S
Hexyl*		–	–	–	–	–	–	S	S	–	–	S	S	S	S	S	S
Isobutyl*		–	–	–	–	–	–	S	S	–	–	S	–	S	–	S	S
Isopropyl*		–	–	S	U	S	–	S	S	–	–	S	S	S	S	S	S
Methyl*		–	–	S	S	S	–	S	S	–	–	S	S	S	S	S	S
Propyl*		–	–	S	S	S	–	S	S	–	–	S	S	S	S	S	S
Aluminum Salts	Conc.	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	U
Aluminum Hydroxide	10%	–	–	S	S	S	–	S	S	–	–	S	S	S	–	S	S
Alums (All Types)	Conc.	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Ammonia, Dry Gas	100	S	S	S	S	S	S	U	U	S	S	S	S	S	S	–	S
Ammonia, Solution	30	U	U	S	S	S	S	S	S	S	U	S	S	S	S	S	–
Ammonium Salts		S	S	S	S	S	S	S	S	S	S	S	S	S	S	–	U
Amyl Acetate*†	100	U	U	U	U	U	U	S	U	S	U	U	U	S	U	U	–
Amyl Chloride	100	U	U	U	U	U	U	S	S	S	U	U	U	–	–	–	–
Aniline*	100	U	U	U	U	U	U	S	U	–	–	U	U	S	U	S	–
Antifreeze*/**		U	U	S	S	S	U	S	S	S	S	S	S	S	S	S	S
Antimony Chloride		S	S	S	S	S	U	S	U	S	S	S	S	–	–	S	–
Aqua Regia*		U	U	U	U	U	U	S	U	U	U	U	U	U	U	U	U
Arsenic Acid	80	S	S	S	S	S	S	S	S	–	–	S	S	–	–	S	S
Barium Salts		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Benzadlehyde*	10	U	U	U	U	S	U	S	U	–	–	S	S	S	U	U	S
Benzene*		U	U	U	U	U	U	S	S	S	U	–	–	U	U	S	U
Benzene Sulfonic Acid*/**	10	U	U	S	U	S	S	S	U	S	S	S	S	–	–	S	–
Benzoic Acid	All Conc.	S	S	S	S	S	S	S	S	S	S	–	–	–	U	S	–
Black Liquor[2]								S	S			S	S	S	–	S	–
Bleach See statement on NaOCl storage in Technical Data section	10	U	U	S	S	S	S	S	S	S	S	S	–	S	U	S	–
Borax	Satd.	S	S	S	S	S	S	S	S	S	S	S	–	S	S	S	S
Boric Acid	Conc.	S	S	S	S	S	S	S	S	S	S	–	–	S	S	S	S
Bromine Gas	Weak Conc.	U	U	U	U	U	U	S	S	S	S	U	U	–	U	S	–
Bromine Liquid	100	U	U	U	U	U	U	S	S	–	–	U	U	–	U	S	–
Bromine Water†		U	U	U	U	U	U	S	S	–	–	U	U	–	–	S	U
Butadiene		–	–	–	–	–	–	S	S	–	–	U	U	S	–	S	S
Butane		–	–	–	–	S	–	S	S	–	–	U	U	U	S	S	S
Butanediol*	100	U	U	S	S	U	U	S	S	–	–	–	–	–	–	–	–
Butyl Acetate†	100	U	U	S	U	U	U	S	U	S	U	U	U	–	U	–	S
Butyl Alcohol*	100	U	U	S	S	U	U	S	S	S	S	–	–	–	S	S	–
Butylene		–	–	–	–	–	–	S	U	–	–	S	S	U	–	S	S
Butyric Acid	80	U	U	–	–	S	S	S	S	S	U	U	U	–	–	S	–

See last page for chart and footnote legend.

Chemical Resistance

Description	% Conc.	LLDPE/LDPE/HDPE 70°F	LLDPE/LDPE/HDPE 140°F	XLPE1 70°F	XLPE1 140°F	PP 70°F	PP 140°F	PVDF 70°F	PVDF 140°F	FRP 70°F	FRP 140°F	PVC 70°F	PVC 140°F	EPDM 70°F	NEOPRENE 70°F	VITON® 70°F	316 STAINLESS 70°F
Cadmium Salts		S	S	S	S	S	S	S	S	S	S	–	–	–	S	S	–
Calcium Salts		S	S	S	S	S	S	S	S	S	S	S	S	S	U	S	S
Calcium Hypochlorite**		S	S	S	S	S	S	S	S	S	S	–	–	–	U	S	–
Calgon (sodium hexmeta phosphate)*		U	U	S	S	U	U	S	S	–	–	–	–	–	S	–	S
Camphor Oil		U	U	U	U	U	U	–	–	–	–	–	–	–	–	–	S
Carbon Bisulfide* (disulfide)		U	U	U	U	U	U	S	U	–	–	U	U	U	U	S	U
Carbon Dioxide, wet/dry	100	S	S	S	S	S	S	S	S	S	S	S	S	–	S	S	S
Carbon Monoxide		S	S	S	S	S	S	S	S	S	S	S	S	–	S	S	S
Carbon Tetrachloride†		U	U	U	U	U	U	S	S	U	U	U	U	U	U	S	S
Carbonic Acid		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Castor Oil*		U	U	S	S	U	U	S	S	–	–	S	S	–	S	S	S
Caustic Soda*	10	U	U	S	S	S	S	S	S	–	–	S	S	S	S	S	S
Caustic Soda*	Conc.	U	U	S	S	S	–	U	U	S	U	S	S	S	S	–	U
Chlorine Gas, Dry	100	U	U	U	U	U	U	S	S	S	S	U	U	U	U	S	–
Chlorine Liquid		U	U	U	U	U	U	S	S	–	–	U	U	–	U	–	–
Chlorine Water	Satd.	S	U	S	U	U	U	S	S	S	S	S	S	–	U	–	–
Chloroacetic Acid*	100	U	U	U	U	U	U	S	U	S	U	S	U	S	S	U	U
Chlorobenzene*†		U	U	U	U	U	U	S	U	S	U	U	U	U	U	S	S
Chloroform*†		U	U	U	U	U	U	S	U	–	–	U	U	U	U	S	S
Chlorosulfonic Acid*		U	U	U	U	U	U	U	U	–	–	U	U	U	U	U	U
Chrome Alum	Satd.	S	S	S	S	S	S	S	S	–	–	S	S	S	S	U	S
Chromic Acid	20	S	U	S	S	U	U	S	S	–	–	S	U	U	U	S	S
Chromic Acid**	50	U	U	S	U	U	U	S	U	–	–	U	U	U	U	S	S
Chromic Acid & 50% Sulfuric Acid*/**		U	U	S	U	U	U	S	U	U	U	U	U	U	U	U	U
Citric Acid*	Satd.	U	U	S	S	S	S	S	S	S	S	S	S	–	S	S	S
Coconut Oil Derivatives		S	S	S	S	S	S	S	S	S	S	S	S	–	S	S	S
Cottonseed Oil*		U	U	S	S	S	S	S	S	S	S	S	S	S	S	S	–
Cresol*		U	U	S	U	U	U	S	S	–	–	U	U	U	U	S	S
Cresylic Acid		U	U	U	U	U	U	S	S	–	–	S	U	U	U	S	S
Cupric Salts		S	S	S	S	S	S	S	S	–	–	S	S	S	S	S	U
Cuprous Salts		S	S	S	S	S	S	S	S	–	–	S	S	S	S	S	U
Cyclohexane		U	U	U	U	U	U	S	S	S	S	U	U	U	U	S	S
Cyclohexanone*		U	U	U	U	U	U	S	U	S	U	U	U	–	–	–	S
Detergents*		U	U	S	S	U	U	S	S	S	S	S	S	–	S	S	S
Developers, Photographic		S	S	S	S	S	S	S	S	S	S	S	S	–	–	–	S
Dextrin	Satd.	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	–
Dextrose	Satd.	S	S	S	S	S	S	S	S	–	–	S	S	S	S	S	–
Diazo Salts		S	S	S	S	S	S	–	–	–	–	S	S	–	–	–	–
Diesel Fuel		–	–	S	U	S	U	S	S	S	S	S	U	U	U	S	S
Diethylamine		U	U	–	–	S	U	S	U	S	S	U	U	U	S	U	S
Diethylene Glycol*		U	U	S	S	S	U	–	–	S	S	–	–	–	S	–	S
Dioctylphthalate*		U	U	U	U	U	U	U	U	S	U	U	U	–	U	–	S
Disodium Phosphate		S	S	S	S	S	S	S	S	–	–	S	S	–	–	S	S
Emulsions, Photographic*		U	U	S	S	U	U	S	S	–	–	S	S	–	–	–	–
Epsom Salts (Magnesium Sulfate)		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Ethyl Acetate*	100	U	U	U	U	U	U	U	U	–	–	U	U	–	U	–	S
Ethyl Alcohol*	100	U	U	S	S	S	S	S	S	S	U	S	S	–	S	S	S
Ethyl Bromide		U	U	U	U	U	U	S	S	–	–	U	U	–	–	S	S
Ethyl Chloride†		U	U	U	U	U	U	S	S	–	–	U	U	S	U	S	S
Ethyl Ether		U	U	U	U	U	U	S	U	–	–	U	U	–	U	–	S
Ethylene Chloride		U	U	U	U	U	U	S	S	S	S	U	U	U	U	S	S
Ethylene Dichloride*		U	U	U	U	U	U	S	S	–	–	U	U	U	U	S	S
Ethylene Glycol**		U	U	S	S	S	U	S	S			S	S	S	S	S	S
Ethylene Oxide	12	U	U	U	U	S	U	S	U			U	U	U	U	U	–

See last page for chart and footnote legend.

Chemical Resistance

Description	% Conc.	LLDPE/LDPE/HDPE 70°F	LLDPE/LDPE/HDPE 140°F	XLPE1 70°F	XLPE1 140°F	PP 70°F	PP 140°F	PVDF 70°F	PVDF 140°F	FRP 70°F	FRP 140°F	PVC 70°F	PVC 140°F	EPDM 70°F	NEOPRENE 70°F	VITON® 70°F	316 STAINLESS 70°F
Fatty Acids*		U	U	S	S	S	U	S	S	S	S	S	U	U	U	S	S
Ferric Chloride		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	U
Ferric Salts		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	U
Ferrous Salts		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	–
Fish Solubles*		U	U	S	S	U	U	–	–	S	S	S	S	–	–	–	–
Fluoboric Acid		S	S	S	S	S	S	S	S	S	S	S	S	–	S	S	U
Fluorine, Dry		U	U	U	U	U	U	S	U	U	U	U	U	–	–	S	S
Fluosilicic Acid	32	S	S	S	S	S	S	S	S	S	U	S	S	–	–	S	–
Fluosilicic Acid	Conc.	S	U	S	U	S	U	S	S	S	U	–	–	–	–	S	–
Formaldehyde*/**	40	U	U	S	U	S	U	S	U	S	U	U	U	S	S	S	S
Formic Acid*	100	U	U	S	S	S	U	S	S	S	U	U	U	S	S	U	–
Freon 11		–	–	–	–	–	–	U	U	–	–	U	U	U	S	U	S
Freon 113		–	–	–	–	–	–	S	S	–	–	S	S	U	S	U	S
Freon 12		S	U	S	U	S	U	S	S	–	–	U	U	–	S	U	–
Fructose	Satd.	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Fruit Juice		S	S	S	S	S	S	S	S	–	–	S	S	U	U	S	S
Fruit Pulp*		U	U	S	S	S	S	S	S	S	S	S	S	U	S	S	S
Fuel Oil*		U	U	S	U	U	U	S	S	S	S	S	S	U	S	S	S
Gallic Acid*	Satd.	U	U	S	S	S	S	S	U	–	–	S	S	–	S	S	–
Gasoline*†		U	U	S	U	U	U	S	S	S	S	S	U	U	U	S	S
Gelatin		S	S	S	S	S	–	S	S	–	–	S	S	S	S	S	S
Gin*		U	U	S	U	S	S	S	S	–	–	–	–	–	–	–	–
Glucose		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Glue, P.V.A.		–	–	–	–	S	–	S	S	–	–	–	–	–	S	S	S
Glycerol*		U	U	S	S	S	S	S	S	S	S	S	U	S	S	S	S
Glycolic Acid*	30	U	U	S	S	S	S	S	U	S	S	S	S	–	–	S	S
Glycols*/**		U	U	S	S	S	U	S	S	S	S	–	–	–	–	–	S
Gold Monocyanide		S	S	S	S	S	S	S	S	S	S	S	S	–	S	S	S
Grape Juice		–	–	S	S	–	–	S	S	–	–	S	S	–	S	S	S
Grape Sugar	Satd.	S	S	S	S	S	S	S	S	S	S	S	S	–	–	S	–
Grease		U	U	S	S	S	U	S	S	–	–	S	S	–	U	S	S
Heptane*†		U	U	S	U	U	U	S	S	S	S	S	S	U	U	S	S
Hexane*†		U	U	S	U	U	U	S	S	S	U	U	U	U	U	S	S
Honey		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Hydraulic Oils (Petroleum)		U	U	S	U	U	U	S	U	U	U	U	U	U	S	U	S
Hydraulic Oils (Synthetic)		U	U	S	U	U	U	S	U	U	U	U	U	–	U	S	S
Hydrazine		–	–	S	S	–	–	S	S	–	–	U	U	S	S	S	S
Hydrobromic Acid	37	S	S	S	S	U	U	S	S	U	U	S	U	–	–	S	U
Hydrochloric Acid[4]	20	S	S	S	S	S	S	S	S	–	–	S	S	S	S	S	U
Hydrochloric Acid[4]	37	S	S	S	S	S	S	S	S	–	–	S	S	U	U	S	U
Hydrocyanic Acid	Satd.	S	S	S	S	S	S	S	S	S	–	S	S	S	S	S	–
Hydrofluoric Acid	50	S	U	S	S	S	–	S	S	–	–	S	U	U	S	S	U
Hydrofluoric Acid	75	–	–	S	S	S	–	S	S	–	–	U	U	U	U	S	U
Hydrofluosilicic Acid	32	S	S	S	S	S	S	S	S	S	U	S	S	–	–	S	S
Hydrofluosilicic Acid	Conc.	S	U	S	S	S	U	S	S	S	U	S	S	–	–	S	–
Hydrogen	100	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Hydrogen Chloride Gas, Dry		S	S	S	S	S	S	S	S	S	S	–	–	–	–	–	–
Hydrogen Peroxide	30	S	S	S	S	S	U	S	S	S	S	S	–	S	S	S	S
Hydrogen Phosphide	100	S	S	S	S	–	–	S	U	–	–	S	S	–	–	–	–
Hydrogen Sulfide		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Hydrogen Sulfide, Aqueous Sol'n		S	S	S	S	S	U	S	S	–	–	S	S	S	U	S	S
Hydroquinone		S	S	S	S	S	S	S	S	–	–	S	S	–	U	S	–
Hypochlorous Acid	Conc.	S	S	S	S	S	S	S	U	S	S	S	S	–	–	S	–
Inks*		U	U	S	S	S	S	S	U	–	–	–	–	–	–	–	S
Iodine		–	–	–	–	U	U	S	S	–	–	U	U	U	U	S	U
Iodine (K Solution)	Conc.	U	U	U	U	U	U	–	–	–	–	–	–	–	–	–	–

See last page for chart and footnote legend.

Chemical Resistance

Description	% Conc.	LLDPE/LDPE/HDPE 70°F	LLDPE/LDPE/HDPE 140°F	XLPE1 70°F	XLPE1 140°F	PP 70°F	PP 140°F	PVDF 70°F	PVDF 140°F	FRP 70°F	FRP 140°F	PVC 70°F	PVC 140°F	EPDM 70°F	NEOPRENE 70°F	VITON® 70°F	316 STAINLESS 70°F
Isopropyl Alcohol*		U	U	S	U	S	U	S	S	–	–	S	U	S	S	S	S
Isopropyle Ether		–	–	–	–	–	–	S	U	–	–	–	–	U	U	U	S
Isooctane		–	–	–	–	–	–	S	S	–	–	–	–	S	S	S	S
Jet Fuel (JP3, JP4, JP5)		–	–	–	–	S	U	S	S	–	–	S	U	U	U	S	S
Kerosene*		U	U	S	U	S	U	S	S	S	S	S	U	U	U	S	S
Ketones		–	–	–	–	S	–	U	U	–	–	U	U	S	U	U	S
Lactic Acid*	90	U	U	S	U	S	U	S	U	S	S	S	–	S	S	S	–
Lard Oil		U	U	S	U	U	U	S	U	–	–	S	U	U	U	S	S
Latex*		U	U	S	S	S	S	–	–	–	–	–	–	–	U	S	S
Lead Acetate	Satd.	S	S	S	S	S	S	S	S	S	S	S	S	–	–	S	–
Lime	30	–	–	S	S	S	U	–	–	–	–	S	U	S	S	S	–
Linseed Oil*		U	U	S	U	S	S	S	S	S	S	S	S	–	S	S	S
Lube Oil*		U	U	S	U	S	U	S	S	–	–	S	U	–	–	S	S
Magnesium Salts		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Maleic Acid		S	U	S	U	S	U	S	S	–	–	S	S	U	U	S	S
Mercuric Salts	Satd.	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	U
Mercurous Salts	Satd.	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	–
Mercury		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Methyl Acetate		–	–	–	–	–	–	S	U	–	–	U	U	U	U	U	S
Methyl Alcohol*	100	U	U	S	S	S	S	S	S	S	U	S	U	S	S	S	S
Methyl Bromide		U	U	U	U	U	U	S	S	–	–	U	U	U	U	S	S
Methyl Butyl Ketone		–	–	–	–	U	U	U	U	–	–	U	U	S	U	U	S
Methyl Cellosolve		–	–	–	–	S	U	S	S	–	–	U	U	U	U	U	S
Methyl Chloride*		U	U	U	U	U	U	S	S	–	–	U	U	U	U	S	S
Methyl Isobutyl Ketone		–	–	–	–	U	U	U	U	–	–	U	U	U	U	U	S
Methyl Ethyl Ketone*†	100	U	U	U	U	S	U	U	U	–	–	U	U	S	U	–	S
Methyl Methacrylate		–	–	–	–	–	–	S	U	–	–	S	–	U	U	U	–
Methyl Sulfuric Acid*		U	U	S	U	S	U	S	U	S	S	S	U	–	–	–	–
Methylamine		–	–	–	–	–	–	U	U	–	–	U	U	–	–	–	S
Methylene Chloride*	100	U	U	U	U	U	U	U	U	–	–	U	U	–	U	–	–
Milk		S	S	S	S	S	S	S	S	–	–	S	S	S	S	S	S
Mineral Oils		U	U	S	U	S	U	S	S	S	S	S	U	–	S	S	S
Molasses	Comm.	S	S	S	S	S	S	S	S	S	S	S	S	U	–	–	S
Naphtha*		U	U	U	U	S	U	S	S	S	S	S	U	U	U	S	S
Naphthalene*		U	U	U	U	S	U	S	S	S	S	U	U	U	U	S	S
Nickel Salts		S	S	S	S	S	S	S	S	S	S	S	S	–	S	S	U
Nicotine*	Dilute	U	U	S	S	S	S	S	U	–	–	S	S	–	–	–	–
Nicotinic Acid*		U	U	S	S	S	S	S	S	–	–	S	S	–	–	–	–
Nitric Acid**	0-29	S	S	S	S	S	U	S	U	S	U	S	S	–	U	S	S
Nitric Acid**	30-49	S	U	S	U	U	U	S	U	S	U	U	U	U	U	S	S
Nitric Acid**	50-69	U	U	U	U	U	U	U	U	–	–	U	U	–	U	S	S
Nitric Acid**	70-98	U	U	U	U	U	U	U	U	U	U	U	U	–	U	U	–
Nitrobenzene*	100	U	U	U	U	U	U	S	U	–	–	U	U	S	U	U	S
Oils*																	
Essential		–	–	–	–	–	–	S	S	–	–	–	–	–	U	–	S
Mineral		–	–	S	U	–	–	S	S	–	–	S	U	–	S	S	S
Vegetable		–	–	S	U	–	–	S	S	–	–	S	U	–	S	S	S
Lubricating		–	–	S	U	–	–	S	S	–	–	S	U	–	S	S	S
Oils and Fats*		U	U	S	U	S	U	S	S	S	S	S	U	–	S	S	S
Oleic Acid	Conc.	U	U	S	U	S	U	S	S	S	S	S	U	U	U	S	S
Oleum		U	U	U	U	U	U	U	U	–	–	U	U	U	U	S	–
Orange Extract		S	S	S	S	S	S	S	S	–	–	–	–	–	–	–	–
Oxalic Acid	Satd.	S	U	S	U	S	S	S	U	S	S	S	U	–	S	S	–
Ozone		U	U	U	U	U	U	S	S	–	–	S	U	U	–	S	S
Palmitic Acid		S	U	S	U	S	U	S	S	S	S	S	U	–	–	S	S
Paraffin		–	–	–	–	S	U	S	S	–	–	S	U	U	–	S	S

See last page for chart and footnote legend.

Chemical Resistance

Description	% Conc.	LLDPE/LDPE/HDPE 70°F	LLDPE/LDPE/HDPE 140°F	XLPE1 70°F	XLPE1 140°F	PP 70°F	PP 140°F	PVDF 70°F	PVDF 140°F	FRP 70°F	FRP 140°F	PVC 70°F	PVC 140°F	EPDM 70°F	NEOPRENE 70°F	VITON® 70°F	316 STAINLESS 70°F
Pentane		–	–	–	–	–	–	–	–	–	–	–	–	U	U	S	U
Perchloric Acid	10	S	S	S	S	S	S	S	S	S	U	S	U	–	–	S	U
Perchlorethylene		U	U	U	U	U	U	S	S	–	–	U	U	U	U	S	S
Phenol Carbolic Acid	5	S	U	S	U	S	S	S	S	–	–	S	U	U	U	S	–
Phosphoric Acid	50	S	S	S	S	S	S	S	S	S	S	S	U	S	S	S	S
Phosphoric Acid	85	S	U	S	S	S	U	S	S	S	S	S	U	S	S	S	–
Phosphorus Pentoxide	100	S	U	S	U	S	U	S	S	–	–	S	–	–	–	–	–
Phosphorus Trichloride	100	U	U	–	–	U	U	S	S	–	–	U	U	–	–	–	S
Photographic Solutions*		S	U	S	S	S	S	S	S	S	U	S	S	–	S	–	–
Pickling Baths, Hydrochloric Acid*		U	U	S	S	S	S	–	–	S	S	–	–	–	–	–	–
Pickling Baths, Sulfuric Acid*		U	U	S	S	S	S	–	–	S	S	–	–	–	–	S	–
Pickling Baths, Sulfuric-Nitric*/**		U	U	S	U	S	U	–	–	S	U	U	U	–	–	S	–
Picric Acid*	1	U	U	S	U	S	U	S	U	S	S	U	U	U	S	S	–
Plating Solutions Without Wetting Agents**		S	U	S	U	S	U	S	U	S	U	S	U	–	S	S	S
Potassium Salts		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	–
Potassium Hydroxide*	0-10	U	U	S	U	S	U	S	U	U	U	S	S	S	U	S	U
Propane		–	–	–	–	–	–	S	S	–	–	S	U	U	S	S	S
Propyl Alcohol*		U	U	S	S	S	S	–	–	–	–	S	U	–	S	S	S
Propylene Glycol*		U	U	S	S	S	U	S	S	S	S	–	–	–	U	S	S
Pyridine*		U	U	S	U	S	S	U	U	–	–	U	U	U	U	U	U
Pyrogallic Acid		–	–	–	–	S	U	S	U	–	–	S	U	–	–	S	S
Rayon Coagulating Bath*		U	U	S	S	S	S	–	–	–	–	S	S	–	–	–	–
Selenic Acid		S	S	S	S	S	U	S	S	–	–	S	S	–	–	–	–
Shortening*		U	U	S	S	S	S	–	–	–	–	–	–	–	–	–	–
Silicic Acid		S	S	S	S	S	S	S	S	S	S	S	S	–	–	S	–
Silver Salts		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Soap Solution*	Any Conc.	U	U	S	S	U	U	S	U	S	S	S	S	S	S	S	S
Soda Ash		S	S	S	S	S	S	S	S	U	U	S	S	S	S	S	S
Sodium Salts		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Sodium Hexametaphosphate*		U	U	S	S	U	U	–	–	–	–	–	–	–	S	–	S
Sodium Hydroxide*	10	U	U	S	S	S	S	S	S	–	–	S	S	S	S	S	S
Sodium Hydroxide*	Conc.	U	U	S	S	S	–	U	U	S	U	S	S	S	S	–	U
Sodium Hypochlorite** See NaOCl Storage statement, Pg 38.		U	U	S	S	U	U	S	S	S	S	S	–	S	U	S	U
Sour Crude*		U	U	S	U	S	U	S	S	S	S	S	S	–	–	S	–
Stannic Salts		S	S	S	S	S	S	S	S	S	S	S	S	S	–	S	–
Stannous Salts		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	–
Starch Solution	Satd.	S	S	S	S	S	S	S	S	S	S	S	S	–	–	S	S
Stearic Acid*	100	U	U	S	S	S	S	S	S	S	S	U	U	–	S	S	S
Stoddard's Solvent		–	–	–	–	U	U	S	S	–	–	U	U	U	U	S	S
Styrene Monomer		–	–	–	–	–	–	S	S	–	–	U	U	U	U	S	S
Sulfur		S	U	S	U	S	U	S	S	–	–	U	U	S	S	S	S
Sulfur Chloride		U	U	U	U	U	U	S	U	–	–	U	U	U	U	S	U
Sulfur Dioxide**		S	U	S	U	S	U	S	S	S	S	U	U	S	S	S	S
Sulfuric Acid[3]**	0-49	S	S	S	S	S	S	S	S	S	S	S	S	–	S	S	U
Sulfuric Acid[3]**	51-74	U	U	S	U	S	U	S	S	–	–	S	S	U	U	S	U
Sulfuric Acid[3, 5]**	75-95	U	U	S	U	U	U	S	U	–	–	U	U	U	U	S	U
Sulfuric Acid[3, 5]**	96-98	U	U	U	U	–	–	S	U	–	–	U	U	U	U	S	U
Sulfuric Acid, Fuming*[3]/**		U	U	U	U	U	U	U	U	–	–	U	U	U	U	S	–
Sulfurous Acid	Conc.	S	S	S	S	S	S	S	S	S	S	S	S	U	U	S	–
Tallow		S	U	S	U	S	U	S	S	–	–	–	–	–	–	S	S
Tannic Acid*	Conc.	U	U	S	S	S	S	S	S	S	S	S	S	–	S	S	S
Tanning Liquors*		–	–	S	S	–	–	S	U	–	–	S	S	–	–	–	S
Tartaric Acid	Satd.	S	S	S	S	S	S	S	S	S	S	S	S	–	S	S	–
Tetrachlorethane		U	U	U	U	U	U	S	S	–	–	–	–	U	U	S	S

See last page for chart and footnote legend.

Chemical Resistance

Description	% Conc.	LLDPE/LDPE/HDPE 70°F	LLDPE/LDPE/HDPE 140°F	XLPE1 70°F	XLPE1 140°F	PP 70°F	PP 140°F	PVDF 70°F	PVDF 140°F	FRP 70°F	FRP 140°F	PVC 70°F	PVC 140°F	EPDM 70°F	NEOPRENE 70°F	VITON® 70°F	316 STAINLESS 70°F
Tetrahydrofuran*		U	U	U	U	U	U	U	U	–	–	U	U	U	U	U	S
Thionyl Chloride		U	U	U	U	U	U	U	U	–	–	U	U	–	–	–	U
Toluene*†		U	U	U	U	U	U	S	S	S	U	U	U	U	U	S	S
Transformer Oil*		U	U	S	U	S	U	–	–	–	–	U	U	–	–	–	S
Trichloroethylene		U	U	U	U	U	U	S	U	S	S	U	U	U	U	S	S
Trisodium Phosphate		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	–
Turpentine*	Satd.	U	U	U	U	U	U	S	S	U	U	U	U	U	U	S	S
Urea*		U	U	S	S	S	S	S	S	S	S	S	U	–	–	–	S
Urine	Conc.	S	S	S	S	S	S	S	S	S	S	S	S	S	U	S	S
Vanilla Extract*		U	U	S	S	S	S	–	–	–	–	–	–	–	–	–	–
Vinegar* (4-8% of Acetic Acid)		U	U	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Water, Acid, Mine		–	–	S	S	S	-	S	U	–	–	S	S	–	U	S	U
Water, Distilled		–	–	S	S	S	S	S	S	–	–	S	S	S	S	S	S
Water, Deionized		U	U	S	U	S	S	S	S	–	–	S	S	S	S	S	S
Water, Fresh		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Water, Salt		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	U
Wetting Agents*		U	U	S	S	U	U	S	S	S	S	–	-–	–	-	–	–
Whiskey*		U	U	S	S	S	S	S	S	–	–	S	S	S	S	S	S
White Liquor (Pulp Mill)		–	–	–	–	S	–	S	U	–	–	S	S	–	S	S	S
White Water (Paper Mill)		–	–	–	–	S	–	–	–	–	–	–	–	–	S	S	S
WInes		S	S	S	S	S	S	S	S	–	–	S	S	–	–	S	–
Xylene*†		U	U	U	U	U	U	S	S	U	U	U	U	U	U	S	S
Yeast		S	S	S	S	S	S	S	S	S	S	–	–	S	S	S	–
Zinc Salts		S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	–

Legend

S – Satisfactory

U – Unsatisfactory

- – No Test Data

* – These chemicals can cause stress-cracking of LLDPE, LDPE and HDPE under certain conditions. Rotomolded tanks are essentially stress-free and are not usually affected by stress-cracking chemicals. However, these chemicals may affect the service life of tanks with welded fittings or seams, and unsupported tanks operating under heavy loads. Use XLPE tanks which have excellent environmental stress-crack resistance.

** – Limited Warranty one year—see page 45.

+ – Permeation by this solvent may cause softening, swelling and/or considerable loss of fluid in polyethylene tanks.

1 – XLPE exhibits high environmental stress-crack resistance, but available data is limited and tests are recommended for severe conditions or chemicals not listed in this chart.

2 – Mostly satisfactory, but black liquor varies considerably in composition and temperature. Field testing is recommended.

3 – Use of Sulfuric Acid may cause initial discoloration of interior tank wall surface due to oxidation.

– Refer to Chemical Resistance Chart for fittings and gaskets.

4 – Vapors from **Hydrochloric Acid** are extremely aggressive. When storing this product, please make sure you have installed an appropriate **scrubbing system** or specify a **bolted and gasketed manway cover** with plastic bolts. **Contact Saint-Gobain for pricing.**

5 – For Bulk Storage of **Sulfuric Acid concentrations between 80%-95%** please specify XLPE Tanks designed for **2.2 specific gravity**. We recommend this heavier wall tank due to the stress-cracking and oxidizing nature of this chemical. **Contact Saint-Gobain for pricing** on these tanks.

WARNING: Misuse of Saint-Gobain products can be potentially dangerous. Before using this product, please refer to the appropriate Saint-Gobain catalogs/inserts and the various warnings, information, instructions and chemical resistance chart. If any doubt exists about a specific use of Saint-Gobain products, please contact Technical Support, Saint-Gobain Performance Plastics, 1044 MacArthur Rd., Reading, PA 19605 or call (800) 451-0770, fax (610) 376-4802.

Materials

LLDPE—Linear Low-Density Polyethylene

LDPE—Low-Density Polyethylene

HDPE—High-Density Polyethylene

XLPE—Cross-Linked High-Density Polyethylene

PP—Polypropylene

PVDF—Polyvinylidene Fluoride

FRP—Fiberglass-Reinforced Polyester

PVC—Polyvinyl Chloride

EPDM—Ethylene Propylene Diene Monomer

NEOPRENE—A chloroprene polymer, synthetic rubber

VITON® —A fluoroelastomer, registered trademark of E.I. du Pont de Nemours and Company, Inc.