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Polyethylene Chemical Compatibility Guide Page 1 of 5

Chemical Compatibility Guide For Polyethylene Items

This Chemical Compatibility Guide is offered for informational purposes only and was developed from information sources other than SpillTech. The information from such third party sources is believed to be reliable and accurate; however, Purchaser should make its own determination of compatibility before using any SpillTech product.

It is the sole responsibility of the Purchaser to determine whether any product is suitable for Purchaser's actual or intended uses.

This listing was prepared to provide guidance to the chemical compatibility molded polyethylene. Polyethylene is susceptible to attack by some chemicals which may cause stress cracking, swelling, oxidation or may permeate the polyethylene. These reactions may reduce the physical properties of polyethylene.

When considering a polyethylene product for use in secondary containment applications, it is important to note that most secondary containment products are designed to hold leaked chemicals for only hours, a day, at most a week. These secondary containment units would then be cleaned of any chemical. In these short term applications, a greater variety of chemicals may be used with the polyethylene since the exposure time of the chemical to the polyethylene is limited.

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Rating Key:

L = Products should be suitable for prolonged or repeated contact with these substances, under the conditions specified. S = These substances may adversely affect the polyethylene. Products may be suitable for intermittent contact; however,

some deterioration in properties may occur. The user should perform qualification tests before or during usage of the container.

 \mathbf{N} =These substances aggressively attack polyethylene or have vapor pressures incompatible with closed containers. Do not use polyethylene containers in these applications.

Acetaldehyde (40%)	L
Acetamide	L
Acetic Acid (50%)	L
Acetic Acid (100%)	Ν
Acetic Acid Anhydride	S
Acetic Ether	S
Acetone	L
Acetylene Tetrabromide	S
Acrylic Emulsions	S
Acrylonitrile	L
Adipic Acid	L
Aliphatic Hydrocarbons (Hexane, Octane, etc)	L
Allyl Alcohol (96%)	L
Alum (Aqueous Solutions)	L
Aluminum Chloride (20%)	L
Aluminum Fluoride	L

Hydrofluorisilicic Acid (All Conc.)	L
Hydrogen Bromide (10%)	L
Hydrogen Peroxide (90%)	L
Hydrogen Phosphide 100%	L
Hydroquinone	L
Hydrogen Sulfide	L
Hypochlorous Acid	L
Inks	L
lodine (Alc. Sol.) Conc.	L
Iron Salts	L
Iso-Octane	S
Isopropyl Acetate	L
Isopropyl Alcohol	L
Isopropyl Ether	Ν
Jetfuel	S
Kerosene	S

	
Aluminum Hydrogen Solution (10%)	L
Aluminum Hydroxide	L
Alums (All Types)	L
Ammonia (Anhydrous)	L
Ammonia (Aqueous)	L
Ammonia (100% Dry Gas)	L
Ammonium Salts	L
Ammonium Acetate	L
Ammonium Biflouride	L
Ammonium Carbonate 50%	L
Ammonium Chloride	L
Ammonium Hydrogen Fluoride (50%)	L
Ammonium Hydroxide	L
Ammonium Metaphosphate Sat'd	L
Ammonium Nitrate (10%)	L
Ammonium Nitrate Sat'd	L
Ammonium Persulfate Sat'd	L
Ammonium Phosphate	L
Ammonium Sulfate (1)%)	L
Ammonium Sulfate Sat'd	L
Ammonium Sulfide Sat'd	L
Ammonium Thiocyanate Sat'd	L
Amyl Acetate	L
Amyl Alcohol (100%)	L
Amyl Chloride	N
Aniline (100%)	S
Aniline Hydrochloride	S
Animal Fats	Ľ
Anti-Freeze	
Antimony Salts	
Antimony Trichloride 90%	
Aqua Regia	N
Aqueous Salt Solutions (NaCl)	
Aqueous Alkalies (NaOH)	
Arsenic Acid	
Arsenic Acid	<u>L</u>
Barium Salts	
Barium Carbonate	
Barium Chloride	
Barium Cyanide	
Barium Hydroxide	
Barium Nitrate	
Barium Sulfate	L
Barium Sulfide	
Battery Fluid Acid	S
Beef Tallow Emulsion, Sulfonated	L
Beer	L
Benzaldehyde	L
Benzene	L
Benzene Sulfonic Acid	S
Benzoic Acid	L
Benzyl Alcohol	L
Benzyl Chloroformate	L
Bismuth Salts	L

Lactic Acid (All Conc.)LLanolinLLatexLLead SaltsLLead Acetate Sat'dLLimeLLinseed OilLLithium SaltsL	L L
LatexLLead SaltsLLead Acetate Sat'dLLimeLLinseed OilL	L
Lead Salts L Lead Acetate Sat'd L Lime L Linseed Oil L	_
Lead Acetate Sat'dLLimeLLinseed OilL	L
Lime L Linseed Oil L	
Linseed Oil L	L
	L
Lithium Salts	L
	L
Lube Oil L	L
Magnesium Salts L	L
Magnesium Carbonate L	L
Magnesium Hydroxide L	L
Magnesium Nitrate	L
Magnesium Oxide L	L
Magnesium Sulfate	L
Maleic Acid L	L
Malic Acid (1%)	L
Mercuric Salts L	L
Mercurous Salts L	L
Mercury	L
Methanol	
Methyl Acetate	L
Methyl Alcohol (100%)	
Methyl Amine (32%) L	
Methyl Bromide N	_
Methyl Chloride N	
Methylene Chloride N	
Methyl Ethyl Ketone S	
Methyl Isobutyl Ketone S	<u>s</u>
Methyl Isopropyl ketone S	
Methyl Sulfate L	
Methyl Sulfuric Acid (All Conc.)	
Milk L	_
Mineral Oils L	
Molasses L	
Monochloroacetic Acid Methyl Ester L	_
Morpholin L Mowilith D	
	_
Muriatic Acid L	_
Naptha S	
Napthalene S	
Nickel Salts L	
Nicotine Dilute L	
Nicotinic Acid L	
Nitric Acid <50%	
Nitrobenzene S	
Nitrotoluene S	
Octyl Cresol L	
Oils and Fats	L
Oleic Acid (All Conc.)	_
Oleum Conc. N	Ν
Olive Oil L	L
Orange Extract L	L

Bleach Lye (10%)	S
Black Liquor	L
Borax Cold Sat'd	
Boric Acid Dilute	L
Boric Acid Conc.	L
Bromine Liquid	N
Bromine Water	N
Bromobenzene	N
Bromoform	N
Butadiene	L
Butane	L
Butanediol (100%)	L
Butanol	L
Butyl Acetate	L
Butyl Alcohol (100%)	L
Butylene	Ν
Butylene Glycol	L
Butylene Liquid	N
Butyl Phenol	N
Butyric Acid	L
Calcium Carbonate	L
Calcium Chloride	L
Calcium Hydroxide	L
Calcium Hypochlorite	L
Calcium Nitrate (50%)	L
Calcium Sulfate	L
Camphor Oil	N
Carbon Disulfide	N
Carbonic Acid (Aq.CO2)	L
Carbon Monoxide	
Carbon Tetrachloride	N
Castor Oil Conc.	
Caustic (Aqueous)	
Caustic Potash Sol. (50%)	
Caustic Folds Fold (10%)	
Chloral Hydrate	
Chloroethanol	
Chloric Acid (10%) Chloroacetic Acid	
Chlorobenzene	
Chloroform	N
Chloromethane	<u>N</u>
Chlorosulfonic Acid 100%	N
Chrome Alum Sat'd	<u> </u>
Chromic Acid (50%)	S
Cider	
Citric Acid (All Conc.)	L
Clorox Bleach	L
Coconut Oil Alcohols	L
Cola Concentrates	L
Compressed Air Conditioning Oil	L
Copper Salts	L
Copper Cyanide	L
Copper Nitrate	L

Oxalic Acid (All Conc.)	L
Palmitic Acid	Ν
Palm Oil	S
Paraffin Emulsions	L
Paraffin Oil	L
Perchloric Acid (50%)	L
Perchloroethylene	Ν
Petroleum	L
Petroleum Ether	S
Phenol (90%)	Ν
Phenylhydrazine	Ν
Phosphoric Acid All Conc	L
Phosphorous Chlorides	S
Phosphorous Yellow (100%)	L
Phosphorous Pentoxide	L
Photographic Solutions	L
Phthalic Acid (All Conc.)	L
Phthalic Anhydride	L
Pickling Baths Sulfuric Acid	L
Pickling Baths Hydrochloric Acid	L
Picric Acid (1%)	L
Plating Solutions	L
Potash	L
Potassium/Aluminum Sulfates (50%)	L
Potassium Bichromate	L
Potassium Borate (10%)	L
Potassium Bromide	L
Potassium Chlorate	L
Potassium Chloride	L
Potassium Chromate	L
Potassium Cyanide	L
Potassium Dichromate 40%	<u>с</u> І
Potassium Ferri/ Ferro Cyanide Sat'd	L
Potassium Feini Feini Cyanide Satu Potassium Fluoride	-
Potassium Hydroxide	L
Potassium Hydroxide	L
Potassium Nitrate Sat'd	L
	_
Potassium Perborate Sat'd	L
Potassium Perchlorate	L
Potassium Permanganate	-
Potassium Persufate Sat'd	L
Potassium Phosphates	L
Potassium Sulfate	L
Propanol	L
Propargyl Alcohol (7%)	L
Propionic Acid (50%)	L
Propyl Alcohol	L
Propylene Dichloride (100%)	L
Propylene Glycol	L
Propylene Oxide	L
Pyridine	S
Rayon Coagulation Salts	L
Rust Inhibitors	L
Sea Water	

Copper Sulfate	L
Corn Oil	L
Cottonseed Oil	L
Cresol (90%)	L
Cresylic Acid	L
Crotonic Aldehyde	L
Cuprous Chloride Sat'd	L
Cyclohexane	L
Cyclohexanol	L
Cyclohexanone	S
Detergents (General)	L
Developer, Photographic	L
Dextrin Sat'd	L
Dextrose Sat'd	L
Dibutyl Ether	N
DibutyIphthalate	S
Dibutyl Sebacate	S
Dichloroacetic Acid	S
Dichloroacetic Acid / Methyl Ester	S
Dichlorobenzene Liquid	N
Dichloroethylene	N
Diesel Fuel	S
	S
Diesel Oil	S
Diethyl Carbonate	
Disodium Phosphate	
Diazo Salts	
Diethylene Glycol	L
Diethanolamine	S
Diglycolic Acid (30%)	L
Di-Isobutyl Ketone	S
Dimethylamine	S
Dimethyl Formamide	S
Dinonyl Phthalate	N
Dioctyl Phthalate	N
Dioxane	L
Diphenyl Oxide	N
Electrolyte	L
Emulsions, Photogtraphic	L
Ethanol	L
Ether	Ν
Ethyl Acetate (100%)	S
Ethyl Alcohol	L
Ethyl Butyrate	S
Ethyl Chloride	N
Ethyl Ether	N
Ethylene Chloride	N
Ethylene Chlorohydrin	L
Ethylene Diamine	L
Ethylene Dichloride	N
Ethylene Glycol	
Ethylene Oxide	N
Fatty Acids	
Fatty Alcohol Sulfonate	<u>L</u>
Ferric Salts	L

Selenic Acid	L
Sewage	L
Shortening	L
Silicic Acid	L
Silicone Oil	L
Silver Salts	L
Silver Nitrate	L
Soda Solution (All Conc.)	L
Soda Ash	L
Sodium Salts	L
Sodium Acetate Sat'd	
Sodium Acrylates	L
Sodium Benzoate	L
Sodium Bicarbonate	-
Sodium Bisulfate (10%)	L
Sodium Bisulfite	<u> </u>
Sodium Bromate	S
Sodium Bromide	L
Sodium Bromide Dilute Sol.	L
Sodium Bromide Dilute Sol. Sodium Carbonate	L
	_
Sodium Chlorate	L
Sodium Chloride	L
Sodium Chlorite	L
Sodium Chromate	L
Sodium Disulfite	L
Sodium Dithionite (10%)	L
Sodium Ferricyanide	L
Sodium Ferrocyanide Sat'd	L
Sodium Fluoride Sat'd	L
Sodium Hydroxide Conc.	L
Sodium Hypochlorite	L
Sodium Iodide	L
Sodium Nitrate	L
Sodium Oxalate	L
Sodium Persulfate	L
Sodium Phosphate	L
Sodium Silicate	L
Sodium Sulfate	L
Sodium Sulfide	L
Sodium Sulfite	L
Sodium Sulfonates	L
Sodium Thiosulfate	L
Spindle Oil	L
Stannic Salts	L
Stannous Salts	L
Starch Solution Sat'd	L
Stearic Acid (All Conc.)	L
Succinic Acid	L
Sugar Solutions (Glucose, Lactose, Sucrose, etc)	L
Sulfur	L
Sulfuric Acid (98%)	S
Sulfuric Acid Fuming	N
Sulfurous Acid	L
Sulfuryl Chloride	N
	IN

Ferric Sulfate	L
Ferrous Salts	
Ferrous Sulfate	
Fertilizer Salts	
Fish Solubles	
Fluoboric Acid	
Fluosilicic Acid (All Conc.)	
Formaldehyde (40%) Formamide	
Formic Acid (All Conc.)	
Fruit Pulp	
Fuel Oil	
Furfural (100%)	
	<u>N</u>
Gallic Acid Sat'd	
Gasoline	L
Gasohol	L
Gelatine	
Gin	
Gluconic Acid (All Conc.)	L
Glucose	
Glycerine	L
Glycol	
Glycol Ethers	<u> </u>
Glyocolic Acid (All Conc.)	L
Grape Sugar Sat'd Aq.	L
Heptane	L
Hexane	L
Hexanol Tert	L
Hydrazine Hydrate	L
Hydrosulfite (10%)	L
Hydroxylamine Sulfate	L
Hydrazine (35%)	L
Hydrazine Hydrochloride	L
Hydroiodic Acid (All Conc.)	L
Hydrobromic Acid (50%)	L
Hydrocyanic Acid Sat'd	L
Hydrochloric Acid (All Conc.)	L
Hydrofluoric Acid (All Conc.)	L

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Tallow	
Tannic Acid	L
Tanning Extracts	L
Tartaric Acid Sat'd	L
Tetrachloroethane	N
Tetrachloroethylene	N
Tetraethyl Lead	L
Tetrahydrofuran	N
Tetrahydronaphthalene	N
Thionyl Chloride	N
Tin Salts	L
Titanium Salts	S
Toluene	S
Toluene Sulfonic Acid	S
Transformer Oil	L
Tributylphosphate	L
Trichloroacetic Acid	S
Trichloroethane	Ν
Trichloroethylene	Ν
Tricresyl Phosphate	L
Triethanolamine	L
Trioctyl Phosphate	Ν
Trisodium Phosphate Sat'd	L
Trichloroethylene	N
Turpentine Oil	N
Urea	L
Urine	L
Vegetable Oils	L
Vinegar	L
Vanilla Extract	L
Wax Alcohol	N
Wetting Agents	L
Whisky	L
White Acid (75%)	L
Wine	L
Xylene	N
Yeast	L
Zinc Salts	L
Zinc Sulfate	L