

Chemical / Material Compatibility

By:

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1-Butene, 2-Ethyl

Material Compatibility

<u>MATERIAL</u>	<u>EFFECT</u>
302 STAINLESS STEEL -----	No Effect
304 STAINLESS STEEL -----	No Effect
316 STAINLESS STEEL -----	No Effect
400 SERIES STAINLESS STEEL HARDENED -----	No Effect
440 STAINLESS STEEL -----	No Effect
ACETAL (DELFIN, CELCON) -----	No Effect
ALUMINUM -----	No Effect
BUNA -----	No Effect
CARBON STEEL -----	No Effect
CARBON STEEL HARDENED -----	No Effect
CAST IRON -----	No Effect
COPPER -----	No Effect
E.P.D.M. -----	Severe Effect
NEOPRENE -----	Severe Effect
POLYURETHANE, URETHANE -----	Severe Effect
TEFLON -----	No Effect
VITON -----	No Effect

1-Chlorol 1 Nitro Ethane

Material Compatibility

<u>MATERIAL</u>	<u>EFFECT</u>
ALUMINUM -----	Severe Effect
BUNA -----	Severe Effect
E.P.D.M. -----	Severe Effect
NEOPRENE -----	Severe Effect
POLYURETHANE, URETHANE -----	Severe Effect
VITON -----	Severe Effect

1-Chloronaphthalene

Material Compatibility

<u>MATERIAL</u>	<u>EFFECT</u>
316 STAINLESS STEEL -----	Minor Effect
ALUMINUM -----	Severe Effect
BUNA -----	Severe Effect
CAST IRON -----	Minor Effect
E.P.D.M. -----	Severe Effect
HASTELLOY C -----	No Effect
NEOPRENE -----	Severe Effect
POLYPROPYLENE -----	Severe Effect
TEFLON -----	No Effect
VITON -----	Moderate Effect

1-Nitropropane

Material Compatibility

<u>MATERIAL</u>	<u>EFFECT</u>
316 STAINLESS STEEL -----	No Effect
ALUMINUM -----	No Effect
BUNA -----	Severe Effect
CAST IRON -----	No Effect
E.P.D.M. -----	No Effect
HASTELLOY C -----	No Effect
NEOPRENE -----	Moderate Effect
TEFLON -----	No Effect
VITON -----	Severe Effect

302 STAINLESS STEEL (A-K)

Chemical Compatibility

<u>CHEMICAL</u>	<u>EFFECT</u>
1-Butene, 2-Ethyl -----	No Effect
Acetaldehyde -----	No Effect
Acetamide -----	Minor Effect
Acetate Solvents -----	No Effect
Acetic Acid 100% Boiling -----	Severe Effect
Acetic Acid Air Free -----	Severe Effect
Acetic Acid Aerated -----	Severe Effect
Acetic Acid Vapors - 100% (Hot) -----	Severe Effect
Acetic Acid, 100% Solution -----	Severe Effect
Acetic Acid, 30% -----	Minor Effect
Acetic Acid, 50% -----	No Effect
Acetic Acid, 50% Boiling -----	Severe Effect
Acetic Acid, 80% -----	Minor Effect
Acetic Acid, 80% Boiling -----	Severe Effect
Acetic Acid, Crude -----	Minor Effect
Acetic Acid, Glacial -----	Minor Effect
Acetic Anhydride -----	Minor Effect
Acetic Anhydride (Boiling) -----	No Effect
Acetone -----	No Effect
Acetone Cyanohydrin -----	Minor Effect
Acetonitrile (Methyl Cyanide) -----	No Effect
Acetophenone -----	No Effect
Acetyl Acetone -----	No Effect
Acetyl Chloride -----	No Effect
Acetyl Salicylic Acid -----	Minor Effect
Acetylene (Ethyne) -----	No Effect
Acrolein (Acrylaldehyde) -----	Minor Effect
Acrylonitrile -----	No Effect
Adipic Acid -----	No Effect
Aero Lubriplate -----	No Effect
Aerosafe 2300 -----	No Effect
Aerosafe 2300W -----	No Effect

Aeroshell 17 Grease -----	No Effect
Aeroshell 1AC -----	No Effect
Aeroshell 750 -----	No Effect
Aeroshell 7A Grease -----	No Effect
Air -----	No Effect
Alcohol -----	No Effect
Alcohol, Amyl -----	No Effect
Alcohol, Butyl -----	No Effect
Alcohol, Ethyl -----	No Effect
Alcohol, Methyl -----	No Effect
Alcohol, Octyl -----	No Effect
Alcohol, Propyl -----	No Effect
Alkaline Solutions -----	No Effect
Allyl Alcohol -----	No Effect
Allyl Chloride -----	Minor Effect
Alum -----	Severe Effect
Aluminum (Chrome 5% Sol.) -----	No Effect
Aluminum Acetate -----	Minor Effect
Aluminum Chloride -----	Moderate Effect
Aluminum Fluoride -----	Severe Effect
Aluminum Hydroxide -----	No Effect
Aluminum Hydroxide - Saturated -----	No Effect
Aluminum Nitride -----	Minor Effect
Aluminum Potassium Sulfate -----	Severe Effect
Aluminum Potassium Sulfate (Alum), 10% -----	No Effect
Aluminum Potassium Sulfate, 10% Boiling -----	Minor Effect
Aluminum Potassium Sulfate, 2% Solution -----	No Effect
Aluminum Potassium Sulfate, Saturated Boiling -----	Severe Effect
Aluminum Sulfate -----	Minor Effect
AMERSEP MP-7 -----	Severe Effect
Amines -----	No Effect
Ammonia, Anhydrous, Liquid -----	No Effect
Ammonia, Liquids -----	Minor Effect
Ammonia, Nitrate -----	No Effect
Ammonium Acetate -----	No Effect
Ammonium Bicarbonate -----	No Effect

Ammonium Bifluoride, 10%	-----	Severe Effect
Ammonium Carbonate	-----	Minor Effect
Ammonium Chloride	-----	Moderate Effect
Ammonium Chloride, 1%	-----	Minor Effect
Ammonium Chloride, 10% Solution Boiling	-----	Minor Effect
Ammonium Chloride, 28% Solution Boiling	-----	Minor Effect
Ammonium Chloride, 50% Solution Boiling	-----	Minor Effect
Ammonium Dichromate	-----	No Effect
Ammonium Diphosphate	-----	Minor Effect
Ammonium Fluoride	-----	Minor Effect
Ammonium Hydroxide	-----	Minor Effect
Ammonium Hydroxide, 3 Molar	-----	Minor Effect
Ammonium Hydroxide, Concentrated	-----	Minor Effect
Ammonium Monophosphate	-----	Minor Effect
Ammonium Nitrate	-----	No Effect
Ammonium Nitrite	-----	No Effect
Ammonium Oxalate, 5% Sol.	-----	Minor Effect
Ammonium Persulfate	-----	Minor Effect
Ammonium Persulfate, 10%	-----	Minor Effect
Ammonium Persulfate, 5%	-----	Minor Effect
Ammonium Phosphate	-----	Minor Effect
Ammonium Phosphate, Di-Basic	-----	Minor Effect
Ammonium Phosphate, Monobasic	-----	Minor Effect
Ammonium Phosphate, Tri-Basic	-----	No Effect
Ammonium Sulfate	-----	Severe Effect
Ammonium Sulfide	-----	Minor Effect
Ammonium Sulfite	-----	Severe Effect
Ammonium Sulphate 1%-5%	-----	No Effect
Ammonium Sulphate 10% Boiling	-----	Minor Effect
Ammonium Sulphate Plus 5% Sulfuric Acid	-----	Minor Effect
Ammonium Sulphate Saturated (Boiling)	-----	Minor Effect
Ammonium Sulphite (Boiling)	-----	No Effect
Ammonium Thiocyanate	-----	Minor Effect
Ammonium Thiosulfate	-----	No Effect
Ammonium Triphosphate	-----	No Effect
Amyl Acetate	-----	Minor Effect

Amyl Alcohol -----	No Effect
Amyl Chloride -----	No Effect
Anhydrous Ammonia -----	No Effect
Aniline -----	Minor Effect
Aniline Dyes -----	No Effect
Aniline Hydrochloride -----	Severe Effect
Aniline Sulfite -----	Minor Effect
Animal Fats & Oils -----	No Effect
Animal Gelatin -----	No Effect
Anthraquinone -----	Minor Effect
Anti-Freeze (Alcohol Base) -----	No Effect
Anti-Freeze (Glycol Base) -----	No Effect
Antimony Trichloride -----	Severe Effect
Aqua Regia -----	Severe Effect
Argon -----	No Effect
Arochlor 1248 -----	Minor Effect
Arsenic Acid -----	Minor Effect
Arsenic Trichloride -----	Severe Effect
Arsenious Acid -----	No Effect
Ascorbic Acid -----	No Effect
Askarel -----	No Effect
Asphalt -----	No Effect
Asphalt Topping -----	No Effect
ASTM, Ref #1 Oil -----	No Effect
ASTM, Ref #2 Oil -----	No Effect
ASTM, Ref #3 Oil -----	No Effect
ASTM, Ref #4 Oil -----	No Effect
Automatic Brake Fluid -----	No Effect
Automatic Transmission Fluid -----	No Effect
Automotive Gasoline (Standard) -----	No Effect
Aviation Gasoline -----	No Effect
Baking Enamels, Synthetic -----	No Effect
Banana Oil -----	No Effect
Barbecue Sauce -----	No Effect
Barium Carbonate -----	No Effect
Barium Chloride -----	Moderate Effect

Barium Chloride Aqueous Solution (Hot) -----	Minor Effect
Barium Chloride, 5% -----	No Effect
Barium Cyanide -----	No Effect
Barium Hydrate -----	No Effect
Barium Hydroxide -----	Minor Effect
Barium Nitrate -----	No Effect
Barium Sulfate -----	Minor Effect
Barium Sulfate Aqueous Solution (Hot) -----	No Effect
Barium Sulfide -----	Minor Effect
Beef Extract -----	No Effect
Beer -----	No Effect
Beer (Alcohol Ind.) -----	No Effect
Beer (Beverage Ind.) -----	No Effect
Beet Sugar Liquids -----	No Effect
Beet Sugar Liquors -----	No Effect
Benzaldehyde -----	No Effect
Benzene -----	Minor Effect
Benzene Sulfonic Acid -----	No Effect
Benzine (Gasoline) -----	No Effect
Benzoic Acid -----	Minor Effect
Benzol -----	Minor Effect
Benzophenone -----	Minor Effect
Benzyl Acetate -----	No Effect
Benzyl Alcohol -----	Minor Effect
Benzyl Benzoate -----	Minor Effect
Benzyl Chloride -----	Minor Effect
Benzyl Dichloride -----	No Effect
Bismuth Subcarbonate -----	Minor Effect
Black Sulfate Liquor -----	No Effect
Blast Furnace Gas -----	No Effect
Bleaching Powder (Wet) -----	No Effect
Blood (Meat Juices-Cold) -----	Minor Effect
Borax -----	No Effect
Bordeaux Mixture -----	No Effect
Boric Acid -----	Minor Effect
Brake Fluid (Non-Petroleum) -----	No Effect

Brewery Slop -----	No Effect
Brine -----	No Effect
Bromine (Dry) -----	Severe Effect
Bromine (Wet) -----	Severe Effect
Bromine Trifluoride -----	Severe Effect
Bromine Water -----	Severe Effect
Bromine, Anhydrous -----	Severe Effect
Bromine, Liquid -----	Severe Effect
Bromobenzene -----	No Effect
Bromochloromethane -----	Minor Effect
Bromotoluene -----	No Effect
Bronzing Liquid -----	No Effect
Bunker Oil (Fuel) #5,#6 & C -----	No Effect
Butadiene -----	No Effect
Butane -----	No Effect
Butane, 2,2-Dimethyl -----	No Effect
Butane, 2,3-Dimethyl -----	No Effect
Butanol -----	No Effect
Butter -----	No Effect
Butter - Animal Fat -----	No Effect
Buttermilk -----	No Effect
Butyl Acetate -----	No Effect
Butyl Acrylate -----	No Effect
Butyl Alcohol -----	No Effect
Butyl Cellosolve -----	No Effect
Butyl Chloride -----	Minor Effect
Butyl Stearate -----	Minor Effect
Butylene -----	No Effect
Butyric Acid -----	Minor Effect
Butyric Anhydride -----	No Effect
Cadmium Sulfate (25% Concentration) -----	No Effect
Calcium Acetate -----	Minor Effect
Calcium Bisulfate -----	Moderate Effect
Calcium Bisulfide -----	Minor Effect
Calcium Bisulfite -----	No Effect
Calcium Carbonate -----	Minor Effect

Calcium Chlorate -----	Minor Effect
Calcium Chloride -----	Moderate Effect
Calcium Hydroxide -----	Minor Effect
Calcium Hydroxide, 10% (Boiling) -----	No Effect
Calcium Hydroxide, 20% (Boiling) -----	No Effect
Calcium Hydroxide, 50% (Boiling) -----	Severe Effect
Calcium Hypochlorite -----	Severe Effect
Calcium Nitrate -----	Minor Effect
Calcium Oxide -----	No Effect
Calcium Phosphate -----	Minor Effect
Calcium Silicate -----	No Effect
Calcium Sulfate -----	Minor Effect
Calcium Sulfate - Saturated -----	No Effect
Calcium Sulfide -----	No Effect
Calcium Sulfite -----	No Effect
Calgon -----	No Effect
Camphor -----	Minor Effect
Cane Juice -----	No Effect
Cane Sugar Liquors -----	No Effect
Caproic Aldehyde -----	Minor Effect
Capryl Alcohol -----	No Effect
Caprylic Acid (Caprillic Acid) -----	No Effect
Carbitol -----	Minor Effect
Carbolic Acid -----	No Effect
Carbon Bisulfide -----	Minor Effect
Carbon Dioxide, Dry -----	No Effect
Carbon Disulfide -----	No Effect
Carbon Monoxide -----	No Effect
Carbon Tetrachloride -----	Minor Effect
Carbon Tetrachloride-Aqueous Solution 5%-10% -	Severe Effect
Carbon Tetrachloride-Pure -----	Minor Effect
Carbonated Water -----	Minor Effect
Carbonic Acid -----	Minor Effect
Castor Oil -----	No Effect
Catsup -----	Minor Effect
Caustic -----	No Effect

Cellosolve -----	Minor Effect
Cellosolve Acetate -----	Minor Effect
Cellosolve Butyl -----	Minor Effect
Cellulube Hydraulic Fluids (Phosphate Esters)	No Effect
China Wood Oil (Tung Oil) -----	No Effect
Chloracetic Acid -----	Severe Effect
Chlorbenzol (Conc. Pure) -----	No Effect
Chloric Acid -----	Severe Effect
Chlorinated Lime, 35% (Bleach) -----	No Effect
Chlorinated Water, Saturate -----	Severe Effect
Chlorine Dioxide -----	Severe Effect
Chlorine Gas - 100 Degrees C -----	Severe Effect
Chlorine Gas - Dry -----	Severe Effect
Chlorine Gas - Moist -----	Severe Effect
Chlorine Trifluoride -----	No Effect
Chlorine Water -----	Severe Effect
Chlorine, Anhydrous Liquid -----	Minor Effect
Chlorine, Dry -----	Severe Effect
Chlorine, Wet -----	Severe Effect
Chloroacetic Acid -----	Severe Effect
Chloroacetone -----	Minor Effect
Chlorobenzene -----	Minor Effect
Chlorobromomethane -----	Minor Effect
Chlorobutadiene -----	No Effect
Chloroform -----	No Effect
Chlorosulfonic Acid -----	Severe Effect
Chlorosulfonic Acid (Dry) -----	Minor Effect
Chlorosulfonic Acid (Wet) -----	Severe Effect
Chlorotoluene -----	Minor Effect
Chlorox -----	No Effect
Chocolate Syrup -----	No Effect
Chrome Alum -----	No Effect
Chrome Plating Solutions -----	No Effect
Chromic Acid, 5% -----	Minor Effect
Chromic Acid, 50% -----	Minor Effect
Chromic Acid, 50% Solution (Hot) -----	Severe Effect

Chromium Plating Bath -----	No Effect
Chromium Sulfate (Basic) -----	Minor Effect
Cider (Apple Juice) -----	No Effect
Cinnamon Oil -----	No Effect
Circo Light Process Oil -----	No Effect
Citric Acid, 15% Solution -----	No Effect
Citric Acid, 15% Solution (Boiling) -----	Minor Effect
Citric Acid, 5% Solution -----	No Effect
Citric Acid, 5% Solution (@ 150 F) -----	No Effect
Citric Acid, Concentrated (Boiling) -----	Severe Effect
Citric Oils -----	No Effect
Citrus Pectin Liquor -----	No Effect
Clove Oil -----	No Effect
Coca Cola Syrup -----	No Effect
Cod Liver Oil -----	No Effect
Coffee -----	No Effect
Copal Varnish -----	No Effect
Copper Acetate -----	No Effect
Copper Acetate, Saturated Solution -----	No Effect
Copper Chloride -----	Moderate Effect
Copper Chloride, 1% -----	Minor Effect
Copper Chloride, 5% Solution -----	Severe Effect
Copper Cyanide -----	No Effect
Copper Fluoborate -----	Severe Effect
Copper Nitrate -----	Minor Effect
Copper Nitrate, 1% & 5% -----	No Effect
Copper Nitrate, 50% Aqueous Solution (Hot) ---	No Effect
Copper Sulfate -----	Minor Effect
Copper Sulfate, 10% -----	Minor Effect
Copper Sulfate, 5% -----	Minor Effect
Copper Sulfate, 50% -----	Minor Effect
Copper Sulphate, Saturated Solution (Boiling)	No Effect
Core Oil -----	No Effect
Corn Oil -----	No Effect
Cottonseed Oil -----	Minor Effect
Cream -----	No Effect

Creosols -----	No Effect
Cresylic Acid -----	No Effect
Crotonaldehyde -----	No Effect
Cutting Oil (Sulfur Base) -----	No Effect
Cutting Oil (Water Base) -----	No Effect
Cyclohexane -----	Minor Effect
Cyclohexanol -----	Minor Effect
Cyclohexanone -----	Minor Effect
D.D.T. -----	No Effect
Detergent Solutions -----	No Effect
Developing Fluids & Solutions -----	Severe Effect
Dextrose -----	No Effect
Di-Ester Lubricant Mil-L-7808 -----	No Effect
Di-Ester Synthetic Lubricants -----	No Effect
Diacetone -----	No Effect
Diacetone Alcohol -----	No Effect
Dibenzyl Ether -----	No Effect
Dibenzyl Ether -----	No Effect
Dibutyl Ether -----	No Effect
Dibutyl Phthalate -----	No Effect
Dibutyl Sebecate -----	No Effect
Dichloroethane -----	No Effect
Dichlorophenol -----	No Effect
Dimethyl Formamide -----	No Effect
Diesel Oil (Fuel ASTM #2) -----	No Effect
Diethanol Amine -----	No Effect
Diethyl Amine -----	No Effect
Diethyl Ether -----	No Effect
Diethyl Phthalate -----	No Effect
Diethylamine -----	No Effect
Diethylene Ether (Dioxane) -----	No Effect
Diethylene Triamine -----	No Effect
Diisobutyl Ketone -----	No Effect
Diisobutylene -----	Minor Effect
Diisopropyl Ketone -----	No Effect
Diocetyl Phthalate -----	No Effect

Diocetyl Sebecate	-----	No Effect
Dioxane	-----	No Effect
Dipentene	-----	No Effect
Diphenyl	-----	Minor Effect
Diphenyl Oxide	-----	No Effect
Dispersing Oil #10	-----	No Effect
Dodecyl Benzene	-----	No Effect
Dowtherm A	-----	No Effect
Dowtherm E	-----	No Effect
Drinking Water	-----	No Effect
Drycleaning Fluids	-----	No Effect
DTE Light Oil	-----	No Effect
Dyes	-----	No Effect
Elco 28-EP Lubricant	-----	No Effect
Epichlorohydrin	-----	No Effect
Epoxy Resins	-----	No Effect
Epsom Salts	-----	Minor Effect
Ethane	-----	No Effect
Ethanolamine	-----	No Effect
Ether (Ethyl, Methyl, Isor)	-----	No Effect
Ethers	-----	No Effect
Ethyl Acetate	-----	No Effect
Ethyl Acrylate	-----	No Effect
Ethyl Alcohol	-----	No Effect
Ethyl Amine	-----	No Effect
Ethyl Benzene	-----	No Effect
Ethyl Benzoate	-----	No Effect
Ethyl Bromide	-----	No Effect
Ethyl Butyrate	-----	No Effect
Ethyl Cellulose	-----	No Effect
Ethyl Chloride (Dry)	-----	No Effect
Ethyl Chloride (Wet)	-----	No Effect
Ethyl Ether	-----	No Effect
Ethyl Formate	-----	No Effect
Ethyl Mercaptan	-----	Minor Effect
Ethyl Propionate	-----	No Effect

Ethyl Silicate -----	No Effect
Ethyl Sulfate -----	Minor Effect
Ethylene -----	No Effect
Ethylene Chloride -----	No Effect
Ethylene Chlorohydrin -----	Minor Effect
Ethylene Diamine -----	No Effect
Ethylene Dibromide -----	No Effect
Ethylene Dichloride -----	No Effect
Ethylene Glycol -----	No Effect
Ethylene Glycol Monethyl Ether Acetate -----	No Effect
Ethylene Glycol Monomethyl Ether -----	No Effect
Ethylene Oxide -----	No Effect
Ethylene Trichloride -----	No Effect
Ethylhexyl Alcohol -----	No Effect
Ethylidene Chloride -----	No Effect
Fatty Acids -----	Minor Effect
Ferric Chloride, 1% -----	Minor Effect
Ferric Chloride, 1% Solution (Boiling) -----	Severe Effect
Ferric Chloride, 10% Solution -----	Severe Effect
Ferric Chloride, 5% Agitated or Aerated -----	Severe Effect
Ferric Chloride, 5% Solution (Still) -----	Severe Effect
Ferric Hydroxide -----	No Effect
Ferric Nitrate -----	Minor Effect
Ferric Sulfate -----	Minor Effect
Ferric Sulphate 1% to 5% -----	No Effect
Ferrous Chloride -----	Severe Effect
Ferrous Sulfate -----	Minor Effect
Ferrous Sulfate (Copperas) -----	Minor Effect
Ferrous Sulfate (Saturated) -----	Minor Effect
Ferrous Sulfate, 10% Solution -----	Minor Effect
Fish Liver Oils -----	No Effect
Fluoride (Dry) -----	Severe Effect
Fluorine -----	Severe Effect
Fluosilicic Acid -----	Severe Effect
Formaldehyde -----	No Effect
Formaldehyde (Hot) -----	Minor Effect

Formamide	Minor Effect
Formic Acid	Moderate Effect
Formic Acid (Dilute Cold)	Minor Effect
Formic Acid (Dilute Hot)	Minor Effect
Freon 11	No Effect
Freon 112	No Effect
Freon 113	No Effect
Freon 114	No Effect
Freon 114B2	No Effect
Freon 115	No Effect
Freon 12	No Effect
Freon 13	No Effect
Freon 13B1	No Effect
Freon 14	No Effect
Freon 21	No Effect
Freon 22	No Effect
Freon 31	No Effect
Freon 32	No Effect
Freon 502	No Effect
Freon T.F.	No Effect
Freon, BF	No Effect
Freon, C318	No Effect
Freon, K-142B	No Effect
Freon, K-152A	No Effect
Freon, MF	No Effect
Freon, PCA	No Effect
Fruit Juices	No Effect
Fuel Oil	No Effect
Fumaric Acid	No Effect
Furfural	No Effect
Furfuraldehyde	No Effect
Furfuryl Alcohol	No Effect
Gallic Acid	Minor Effect
Gasoline (Aviation)	No Effect
Gasoline (Meter)	No Effect
Gasoline (Sour)	No Effect

Gelatin -----	No Effect
Ginger Oil -----	Severe Effect
Glucose -----	No Effect
Glue -----	Minor Effect
Glutamic Acid -----	No Effect
Glycerine or Glycerol -----	No Effect
Glycolic Acid -----	No Effect
Gold Monocyanide -----	No Effect
Grape Juice -----	No Effect
Grapefruit Oil -----	No Effect
Grease -----	No Effect
Grease (Ester Base) -----	No Effect
Grease (Petroleum Base) -----	No Effect
Grease (Silicone Base) -----	No Effect
Green Sulfate Liquor -----	No Effect
Heptanal -----	No Effect
Heptane -----	No Effect
Hexamine -----	No Effect
Hexane -----	No Effect
Hexane -----	No Effect
Hexanol, Tertiary -----	No Effect
Hexyl Alcohol -----	No Effect
Hexylene Glycol -----	No Effect
Honey -----	No Effect
Hydraulic Oils (Petroleum) -----	No Effect
Hydraulic Oils (Synthetic) -----	No Effect
Hydrazine (Diamine) -----	No Effect
Hydrobromic Acid -----	Severe Effect
Hydrobromic Acid 40% -----	Severe Effect
Hydrochloric Acid -----	Severe Effect
Hydrochloric Acid (Dry Gas) -----	Severe Effect
Hydrochloric Acid Concentrated -----	Severe Effect
Hydrocyanic Acid -----	No Effect
Hydrofluoric Acid 65% or less, Cold -----	Severe Effect
Hydrofluoric Acid 65% or Less, Hot -----	Severe Effect
Hydrofluoric Acid 65% or More, Cold -----	Severe Effect

Hydrofluoric Acid 65% or More, Hot -----	Severe Effect
Hydrofluoric Acid, 100% -----	Severe Effect
Hydrofluosilicic Acid -----	Severe Effect
Hydrogen -----	No Effect
Hydrogen Cyanide Gas -----	Minor Effect
Hydrogen Fluoride -----	No Effect
Hydrogen Gas -----	No Effect
Hydrogen Gas (Cold) -----	No Effect
Hydrogen Peroxide -----	Minor Effect
Hydrogen Sulfide (Dry) -----	No Effect
Hydrogen Sulfide Dry, Cold -----	Severe Effect
Hydrogen Sulfide Dry, Hot -----	Minor Effect
Hydrogen Sulfide Wet, Cold -----	Minor Effect
Hydroquinone -----	Minor Effect
Hydroxyacetic Acid, 10% -----	Minor Effect
Hypochlorous Acid -----	Severe Effect
Illuminating Gas -----	No Effect
Ink -----	No Effect
Ink (Printers) -----	No Effect
Iodine -----	Severe Effect
Iodoform -----	Minor Effect
Isoamyl Acetate -----	No Effect
Isoamyl Butyrate -----	No Effect
Isobutyl Chloride -----	Minor Effect
Isododecane -----	Minor Effect
Isooctane -----	No Effect
Isophorone -----	No Effect
Isopropanol -----	Minor Effect
Isopropyl Acetate -----	Minor Effect
Isopropyl Alcohol -----	No Effect
Isopropyl Amine -----	No Effect
Isopropyl Chloride -----	No Effect
Isopropyl Ether -----	No Effect
Jet Fuel (JP3,JP4,JP5) -----	No Effect
JP-1 -----	No Effect
JP-2 -----	No Effect

JP-3 (Mil-J-5624)	-----	No Effect
JP-4 (Mil-J-5624)	-----	No Effect
JP-5 (Mil-J-5624)	-----	No Effect
JP-6 (Mil-J-25656)	-----	No Effect
JP-X (Mil-F-25604)	-----	No Effect
Kerosene	-----	No Effect
Ketones	-----	No Effect
Keystone #87HX-Grease	-----	No Effect
Lacquer Solvents	-----	No Effect
Lacquers	-----	No Effect
Lactic Acid	-----	No Effect
Lactic Acid 10% Solution (Boiling)	-----	Minor Effect
Lactic Acid, 5% Solution	-----	Minor Effect
Lactol	-----	No Effect
Lard	-----	Minor Effect
Lard Oil (Cold)	-----	No Effect
Lard Oil (Hot)	-----	No Effect
Latex	-----	No Effect
Lauryl Alcohol	-----	No Effect
Lead Acetate	-----	Minor Effect
Lead Chloride	-----	Minor Effect
Lead Nitrate	-----	Minor Effect
Lemon Oil	-----	No Effect
Light Grease	-----	No Effect
Lignin Liquor	-----	No Effect
Ligroin	-----	No Effect
Lime	-----	No Effect
Lime Slurries	-----	No Effect
Lime Sulfur	-----	No Effect
Lindol	-----	No Effect
Linoleic Acid	-----	Minor Effect
Linseed Oil	-----	No Effect
Lithium Chloride	-----	No Effect
Lubricating Oil Di-Ester	-----	No Effect
Lubricating Oil Petroleum Base	-----	No Effect
Lubricating Oil SAE10,20,30,40,50	-----	No Effect

302 STAINLESS STEEL (L-Z)

Chemical Compatibility

<u>CHEMICAL</u>	<u>EFFECT</u>
Magnesium Bisulfite -----	No Effect
Magnesium Carbonate -----	Minor Effect
Magnesium Chloride -----	Minor Effect
Magnesium Hydroxide -----	No Effect
Magnesium Hydroxide -----	No Effect
Magnesium Hydroxide (Hot) -----	No Effect
Magnesium Nitrate -----	Minor Effect
Magnesium Oxide -----	No Effect
Magnesium Sulfate -----	Minor Effect
Maleic Acid -----	Moderate Effect
Maleic Anhydride -----	No Effect
Malic Acid -----	Minor Effect
Malt Beverages -----	No Effect
Manganese Chloride -----	Minor Effect
Maple Sugar Liquors -----	No Effect
Mayonnaise -----	Minor Effect
Mercaptan -----	No Effect
Mercuric Chloride -----	Severe Effect
Mercuric Chloride (Dilute Solution) -----	Severe Effect
Mercuric Cyanide -----	No Effect
Mercury -----	No Effect
Mesityl Oxide -----	No Effect
Methane -----	No Effect
Methanol (See Alcohol Methyl) -----	No Effect
Methyl Acetate -----	No Effect
Methyl Acetone -----	No Effect
Methyl Acrylate -----	No Effect
Methyl Alcohol -----	No Effect
Methyl Alcohol, 10% -----	No Effect
Methyl Amine -----	No Effect
Methyl Amyl Alcohol -----	No Effect
Methyl Benzoate -----	No Effect

Methyl Bromide	No Effect
Methyl Butyl Ketone	No Effect
Methyl Butyrate	No Effect
Methyl Cellosolve	Minor Effect
Methyl Chloride	No Effect
Methyl Ether	Minor Effect
Methyl Ethyl Ketone	No Effect
Methyl Ethyl Ketone	No Effect
Methyl Formate	No Effect
Methyl Iodide	No Effect
Methyl Isobutyl Ketone	Minor Effect
Methyl Isopropyl Ketone	No Effect
Methyl Methacrylate	Minor Effect
Methylamine	No Effect
Methylene Bromide	No Effect
Methylene Chloride	Minor Effect
Milk	No Effect
Mineral Oils	No Effect
MLO-7277 Hydr.	No Effect
MLO-7557	No Effect
MLO-8200 Hydr.	No Effect
MLO-8515	No Effect
Molasses	No Effect
Molybdic Acid	No Effect
Monobromobenzene	No Effect
Monochlorodifluoro Methane	No Effect
Monoethanolamine	No Effect
Monomethylaniline	Minor Effect
Muriatic Acid	Severe Effect
Mustard	No Effect
N-Butyl Ether	No Effect
N-Hexaldehyde	No Effect
N-Pentane	Minor Effect
Naptha	No Effect
Naptha-Coal Tar (Benzol)	No Effect
Napthalene	Minor Effect

Napthenic Acid -----	No Effect
Natural Gas -----	No Effect
Neatsfoot Oil -----	No Effect
Neon -----	No Effect
Neosol -----	No Effect
Nickel Acetate -----	Minor Effect
Nickel Chloride -----	Severe Effect
Nickel Nitrate -----	Minor Effect
Nickel Sulfate -----	Minor Effect
Niter Coke -----	Minor Effect
Nitrana -----	No Effect
Nitric Acid -----	No Effect
Nitric Acid & Hydrochloric Acid -----	Severe Effect
Nitric Acid (Conc) -----	No Effect
Nitric Acid (Red Fuming) -----	No Effect
Nitric Acid 3 Molar -----	No Effect
Nitric Acid Concentrated Boiling -----	Severe Effect
Nitric Acid Inhibited Red Fuming (IRFNA) -----	No Effect
Nitric Acid, 10% -----	No Effect
Nitric Acid, 20% -----	No Effect
Nitric Acid, 50% Solution (Boiling) -----	Minor Effect
Nitric Acid, 65% Solution (Boiling) -----	Minor Effect
Nitriding Gases -----	No Effect
Nitrobenzene -----	Minor Effect
Nitroethane -----	No Effect
Nitroglycerine -----	No Effect
Nitromethane -----	No Effect
Nitropropane -----	No Effect
Nitrous Acid -----	Minor Effect
Nitrous Gases -----	No Effect
Nitrous Oxide -----	Minor Effect
O-Chloronaphthalene -----	Minor Effect
O-Chlorphenol -----	Minor Effect
Octyl Acetate -----	No Effect
Octyl Alcohol -----	No Effect
Oils (Animal) -----	No Effect

Oils, Crude -----	No Effect
Oleic Acid -----	Minor Effect
Olein -----	No Effect
Oleum -----	Minor Effect
Oleum (Fuming Sulfuric Acid) -----	No Effect
Oleum Spirits -----	No Effect
Olive Oil -----	No Effect
Oxalic Acid -----	Moderate Effect
Oxalic Acid, 10% Solution -----	Minor Effect
Oxalic Acid, 10% Solution (Boiling) -----	Severe Effect
Oxalic Acid, 5% (Hot and Cold) -----	Minor Effect
Oxygen, Cold -----	No Effect
Ozone (Dry) -----	No Effect
Ozone (Wet) -----	Minor Effect
P-Dichlorobenzene -----	No Effect
Paint Thinner, DUCO -----	Minor Effect
Paints & Solvents -----	No Effect
Palm Oil -----	No Effect
Palmitic Acid -----	Minor Effect
Para-Dichlorobenzene -----	No Effect
Paraffins (Paraffin Oil) -----	No Effect
Paraformaldehyde -----	No Effect
Paraldehyde -----	No Effect
Peanut Oil -----	No Effect
Pentachloroethane -----	No Effect
Pentachlorophenol -----	No Effect
Pentane -----	No Effect
Peppermint Oil -----	No Effect
Perchloric Acid -----	Minor Effect
Perchloroethylene -----	Minor Effect
Permachlor (Degreasing Fluid) -----	No Effect
Petrolatum -----	No Effect
Petroleum Ether -----	No Effect
Petroleum Oils (Refined) -----	No Effect
Petroleum Oils (Sour) -----	No Effect
Phenethyl Alcohol -----	No Effect

Phenol -----	No Effect
Phenol (Carbolic Acid) -----	Minor Effect
Phenol Sulfonic Acid -----	Minor Effect
Phenol, 10% -----	Minor Effect
Phenol, 70%/30% H2O -----	No Effect
Phenol, 85%/15% H2O -----	No Effect
Phosphoric Acid, 1% Solution -----	No Effect
Phosphoric Acid, 5% Solution -----	No Effect
Phosphoric Acid, 50% -----	Severe Effect
Phosphoric Acid, 50% Solution (Hot) -----	Severe Effect
Phosphoric Acid, 85% Solution -----	Severe Effect
Phosphoric Acid, 85% Solution (Hot) -----	Severe Effect
Phosphorous -----	No Effect
Phosphorus Oxychloride -----	Severe Effect
Phosphorus Trichloride -----	No Effect
Photographic Developers -----	No Effect
Phthalic Acid -----	Minor Effect
Phthalic Anhydride -----	Minor Effect
Phthalic Anhydride (Pure) + Maleic Anhydride -	No Effect
Picric Acid -----	Minor Effect
Picric Acid, H2O Solution -----	No Effect
Pine Oil -----	No Effect
Pneumatic Service -----	No Effect
Potassium Acetate -----	Minor Effect
Potassium Bicarbonate -----	Minor Effect
Potassium Bromide -----	Severe Effect
Potassium Carbonate -----	Minor Effect
Potassium Chlorate -----	Minor Effect
Potassium Chloride -----	Moderate Effect
Potassium Chloride, Boiling -----	Minor Effect
Potassium Chromate -----	Minor Effect
Potassium Copper Cyanide -----	Minor Effect
Potassium Cyanide -----	Minor Effect
Potassium Dichromate -----	Minor Effect
Potassium Ferricyanide -----	Minor Effect
Potassium Ferrocyanide -----	Minor Effect

Potassium Ferrocyanine -----	No Effect
Potassium Hydroxide -----	No Effect
Potassium Hydroxide, 27% Solution (Boiling) --	Minor Effect
Potassium Hydroxide, 5% Solution -----	Minor Effect
Potassium Hydroxide, 50% -----	No Effect
Potassium Hydroxide, 50% Solution (Boiling) --	Minor Effect
Potassium Iodide -----	Minor Effect
Potassium Nitrate -----	Minor Effect
Potassium Nitrate 1% to 5% -----	No Effect
Potassium Oxalate -----	Minor Effect
Potassium Permanganate -----	Minor Effect
Potassium Permanganate, 5% -----	No Effect
Potassium Phosphate -----	Minor Effect
Potassium Sulfate -----	Minor Effect
Potassium Sulfate, 1% and 5% -----	No Effect
Potassium Sulfide -----	Minor Effect
Potassium Sulfite -----	No Effect
Potassium Sulphate -----	Minor Effect
Potassium Sulphite or Nitrate -----	No Effect
Prestone -----	No Effect
PRL-High Temp. Hydr. Oil -----	No Effect
Producer Gas -----	No Effect
Propane -----	No Effect
Propane (Liquefied) -----	No Effect
Propionaldehyde -----	No Effect
Propyl Alcohol -----	No Effect
Propyl Nitrate -----	No Effect
Propylene -----	No Effect
Propylene Dichloride -----	Minor Effect
Propylene Glycol -----	Minor Effect
Propylene Oxide -----	No Effect
Pyranol, Transformer Oil -----	No Effect
Pyridine -----	Minor Effect
Pyrogallic Acid -----	Minor Effect
Pyroligneous Acid -----	Minor Effect
Quaternary Ammonium Salts -----	No Effect

Quench Oil -----	No Effect
Quinine Bisulphate (Dry) -----	Minor Effect
Quinine Sulphate (Dry) -----	No Effect
Rape-Seed Oil -----	No Effect
Resins and Rosins -----	No Effect
Rose Oil -----	No Effect
Rosin -----	Minor Effect
Rosin Emulsion -----	No Effect
Rubber Latex Emulsions -----	No Effect
Rubber Solvents -----	No Effect
Rum -----	No Effect
Rust Inhibitors -----	No Effect
Sal Ammoniac -----	No Effect
Sal Soda -----	No Effect
Salad Dressing -----	No Effect
Salicylic Acid -----	No Effect
Salt Water -----	No Effect
Santo Safe 300 -----	No Effect
Sea Water -----	No Effect
Sesame Seed Oil -----	No Effect
Sewage -----	No Effect
Shellac -----	No Effect
Shellac (Bleached) -----	No Effect
Shellac (Orange) -----	No Effect
Silicate Esters -----	No Effect
Silicon Tetrachloride Wet -----	Severe Effect
Silicone Greases -----	No Effect
Silicone Oils -----	No Effect
Silver Bromide -----	Minor Effect
Silver Chloride -----	Severe Effect
Silver Cyanide -----	No Effect
Silver Nitrate -----	Minor Effect
Soap Solutions -----	No Effect
Soaps -----	No Effect
Soda Ash -----	Minor Effect
Sodium Acetate -----	Minor Effect

Sodium Acid Sulfate -----	Severe Effect
Sodium Aluminate -----	Minor Effect
Sodium Bicarbonate -----	Minor Effect
Sodium Bichromate -----	Minor Effect
Sodium Bisulfate -----	No Effect
Sodium Bisulfate -----	Severe Effect
Sodium Bisulfite -----	Minor Effect
Sodium Borate -----	Minor Effect
Sodium Carbonate -----	Minor Effect
Sodium Chlorate -----	Minor Effect
Sodium Chloride -----	Minor Effect
Sodium Chloride, 2% Solution -----	Minor Effect
Sodium Chloride, 5% @ 150 F -----	Minor Effect
Sodium Chloride, 5% Solution -----	Minor Effect
Sodium Chloride, Saturated Solution -----	No Effect
Sodium Chloride, Saturated Solution (Boiling) -----	Minor Effect
Sodium Chromate -----	Minor Effect
Sodium Citrate -----	Minor Effect
Sodium Cyanide -----	Minor Effect
Sodium Ferrocyanide -----	Minor Effect
Sodium Fluoride -----	Minor Effect
Sodium Fluoride, 5% -----	Minor Effect
Sodium Hydroxide, 20% (Cold) -----	No Effect
Sodium Hydroxide, 20% Solution (Hot) -----	No Effect
Sodium Hydroxide, 50% Solution (Cold) -----	No Effect
Sodium Hydroxide, 80% Solution (Hot) -----	Severe Effect
Sodium Hypochlorite -----	Severe Effect
Sodium Hypochlorite, 20% -----	Severe Effect
Sodium Hypochlorite, 5% -----	Severe Effect
Sodium Hyposulfate -----	No Effect
Sodium Metaphosphate -----	No Effect
Sodium Metasilicate -----	No Effect
Sodium Metasilicate (Cold) -----	No Effect
Sodium Metasilicate (Hot) -----	No Effect
Sodium Monophosphate -----	No Effect
Sodium Nitrate -----	Minor Effect

Sodium Nitrate - Fused -----	Severe Effect
Sodium Perborate -----	Minor Effect
Sodium Peroxide -----	Minor Effect
Sodium Phosphate -----	Minor Effect
Sodium Phosphate (Tribasic) -----	Minor Effect
Sodium Polyphosphate -----	Minor Effect
Sodium Resinate -----	Minor Effect
Sodium Salicylate -----	Minor Effect
Sodium Silicate -----	Minor Effect
Sodium Silicate (Hot) -----	Minor Effect
Sodium Silicate (Water Glass) -----	Minor Effect
Sodium Sulfate -----	Minor Effect
Sodium Sulfide -----	Severe Effect
Sodium Sulfide - Saturated -----	Minor Effect
Sodium Sulfite -----	No Effect
Sodium Sulfite, 10% Solution @ 150 F -----	Minor Effect
Sodium Sulfite, 5% Solution -----	No Effect
Sodium Sulphate -----	No Effect
Sodium Sulphide -----	Severe Effect
Sodium Tetra Borate (Borax) -----	No Effect
Sodium Tetraborate -----	No Effect
Sodium Thiosulfate -----	Minor Effect
Sodium Triphosphate -----	No Effect
Sorghum -----	No Effect
Soy Sauce -----	No Effect
Soybean Oil -----	No Effect
SP-90X -----	Severe Effect
Sperm Oil (Whale Oil) -----	No Effect
Stannic Chloride -----	Severe Effect
Stannic Chloride, 50% -----	Severe Effect
Stannous Chloride -----	Severe Effect
Stannous Chloride, 15% -----	Severe Effect
Starch -----	Minor Effect
Steam, Above 350 F -----	No Effect
Steam, Below 350 F -----	No Effect
Stearic Acid -----	Minor Effect

Stoddard Solvent -----	No Effect
Styrene -----	No Effect
Sugar (Liquids) -----	No Effect
Sulfate Black Liquor -----	Minor Effect
Sulfate Green Liquor -----	Minor Effect
Sulfite Liquors -----	Minor Effect
Sulfur -----	Minor Effect
Sulfur Chloride -----	Minor Effect
Sulfur Containing Oil (1.5%S) -----	Minor Effect
Sulfur Dioxide, Dry -----	No Effect
Sulfur Dioxide, Wet -----	Minor Effect
Sulfur Trioxide -----	Minor Effect
Sulfur Trioxide (Dry) -----	No Effect
Sulfuric Acid (Aerated) No Velocity -----	Minor Effect
Sulfuric Acid (Air Free) No Velocity -----	Severe Effect
Sulfuric Acid (Conc) -----	No Effect
Sulfuric Acid (Fuming) -----	No Effect
Sulfuric Acid, 85% -----	Minor Effect
Sulfurous Acid -----	Moderate Effect
Sulphuric Acid, 10% Solution -----	Minor Effect
Sulphuric Acid, 10% Solution (Boiling) -----	Severe Effect
Sulphuric Acid, 5% -----	Minor Effect
Sulphuric Acid, 5% Solution (Boiling) -----	Severe Effect
Sulphuric Acid, 50% Solution (Boiling) -----	Severe Effect
Sulphuric Acid, Concentrated Solution -----	No Effect
Sulphuric Acid, Concentrated Solution (Boiling) ----	Severe Effect
Sulphuric Acid, Concentrated Solution @ 300% -	Severe Effect
Sulphuric Acid, Fuming -----	Minor Effect
Sulphurous Acid - Saturated -----	No Effect
Sulphurous Spray -----	Severe Effect
Sunsafe (Fire Resist. Hydr. Fluid) -----	No Effect
Syrup -----	No Effect
Talc Oil -----	No Effect
Tall Oil (Liquid Rosin) -----	Minor Effect
Tallow, Molten -----	No Effect

Tannic Acid -----	Minor Effect
Tar and Tar Oil -----	No Effect
Tar, Bituminous -----	No Effect
Tartaric Acid -----	Minor Effect
Terpineol -----	No Effect
Tetrachloroethane -----	No Effect
Tetrachloroethylene -----	No Effect
Tetrahydrofuran -----	No Effect
Tetralin -----	No Effect
Tetraphosphoric Acid -----	Minor Effect
THIO-RED -----	Severe Effect
Titanium Tetrachloride -----	Minor Effect
Toluene -----	No Effect
Toluidine -----	No Effect
Toluol -----	No Effect
Tomato Pulp & Juice -----	No Effect
Toothpaste -----	No Effect
Transformer Oil -----	No Effect
Transmission Fluid, Type A -----	No Effect
Triaryl Phosphate -----	No Effect
Trichloroacetic Acid -----	Severe Effect
Trichlorobenzenes -----	No Effect
Trichloroethane -----	Minor Effect
Trichloroethylene -----	Minor Effect
Trichloromonofluoroethane (Freon 17) -----	No Effect
Trichloropropane -----	No Effect
Trichlorotrifluoroethane (Freon 113) -----	No Effect
Tricresolphosphate -----	No Effect
Tricresyl Phosphate -----	Minor Effect
Triethanolamine -----	No Effect
Triethyl Aluminum -----	No Effect
Triethyl Amine -----	No Effect
Trimethylene Glycol -----	No Effect
Triphenyl Phosphite -----	No Effect
Trisodium Phosphate -----	Minor Effect
Tung Oil -----	No Effect

Turbine Oil -----	No Effect
Turbine Oil #15 (Mil-L-7808A) -----	No Effect
Turbo Oil #35 -----	No Effect
Turpentine -----	Minor Effect
Type 1 Fuel (Mil-S-3136) (ASTM Ref. Fuel A) --	No Effect
Type 11 Fuel (Mil-S-3136) -----	No Effect
Type 111 Fuel (Mil-S-3136) (ASTM Ref. Fuel B)	No Effect
Univis 40 (Hydr. Fluid) -----	No Effect
Unsymmetrical Dimethyl Hydrazine -----	No Effect
Urea -----	Minor Effect
Uric Acid -----	Minor Effect
Urine -----	No Effect
Vanadium Ashes -----	No Effect
Vanadium Pentoxide -----	No Effect
Vanilla Extract -----	No Effect
Varnish -----	No Effect
Vegetable Juices -----	No Effect
Vegetable Oil (Hot) -----	Minor Effect
Vegetable Oils -----	No Effect
Versilube -----	No Effect
Versilube F-50 -----	No Effect
Vinegar -----	No Effect
Vinyl Acetate -----	Minor Effect
Vinyl Chloride -----	Minor Effect
Water -----	No Effect
Water, Acid Mine -----	Minor Effect
Water, Brine, Process, Beverage -----	Minor Effect
Water, Distilled -----	No Effect
Water, Fresh -----	No Effect
Water, Salt -----	Minor Effect
Waxes -----	No Effect
Weed Killers -----	No Effect
Whey -----	No Effect
Whiskey -----	No Effect
White Sulfate Liqueur -----	No Effect
Wood Alcohol -----	No Effect

Wood Oil -----	No Effect
Wort, Distillery -----	No Effect
Xenon -----	No Effect
Xylene -----	Minor Effect
Zinc Carbonate -----	Minor Effect
Zinc Chloride -----	Severe Effect
Zinc Chloride, 5% Solution -----	Minor Effect
Zinc Hydrosulfite -----	No Effect
Zinc Nitrate -----	No Effect
Zinc Sulfate -----	Minor Effect
Zinc Sulfate, 25% Solution (Boiling) -----	Minor Effect
Zinc Sulfate, 5% Solution -----	Minor Effect
Zinc Sulfate, Saturated Solution -----	Minor Effect