

# THE GENERAL CHEMICAL RESISTANCE OF VARIOUS ELASTOMERS

The following pages are offered as a general guide and inspection of the suitability of various elastomers in use today for service in these chemicals and fluids. The ratings are based, for the most part, on published literature of various compounds. We cannot guarantee their accuracy nor assume responsibility for use thereof. Several factors must always be considered in using a rubber part in service. The most important as we see them are:

- 1. The Temperature of Service:** Higher temperatures increase the effect of all chemicals on polymers. The increase varies with the polymer and the chemical. A compound quite suitable at room temperature might fail miserably at elevated temperatures.
- 2. Conditions of Service:** A compound that swells badly might still function well as a static seal yet fail in any dynamic application.
- 3. The Grade of the Polymer:** Many types of polymers are available in different grades that vary greatly in chemical resistance.
- 4. The Compound Itself:** Compound designed for other outstanding properties may be poorer in performance in a chemical than one designed especially for fluid resistance.

FLUID CHART KEY	NATURAL RUBBER	BUNA N	EPDM	HYPALON	VITON
Material & ASTM Designation	Natural Rubber NR Isoprene IR	Nitrile NBR	Ethylene Propylene EPDM	Hypalon CSM	Flouro Elastomer FPM
Chemical Group	Poly Isoprene	Butadiene Acrylonitrile Copolymer Terpolymer	Ethylene Propylene Copolymer Terpolymer	Chloro-Sulfonated Polyethylene	Flouorocarbon Polymer
Generally Resistant To:	Most moderate Chemicals - Wet or Dry, Organic acids, Alcohols, Ketones, Aldehydes	Many Hydrocarbons, Fats, Oils, Greases, Hydraulic fluids, Chemicals	Animal and Vegetable oils, ozone, strong and oxidizing chemicals	Similar to Neoprene with improved acid resistance	All Aliphatic, Aromatic and Halogenated Hydrocarbons, Acids, Animal and Vegetable oils
Generally Attacked By:	Ozone, strong acids, fats, oils, greases, most hydrocarbons	Ozone, Ketones, Esters, Aldehydes, Chlorinated and Nitro Hydrocarbons (Except PVC blends)	Mineral Oils and Solvents, Aromatics, Hydrocarbons	Concentrated Oxidizing acids, esters, ketones, chlorinated, aromatic and nitro hydrocarbons	Ketones, Low Mole Weight Esters and Nitro Containing Compounds



# RATING SYSTEM EMPLOYED

- A** LITTLE OR MINOR EFFECT
- B** MINOR TO MODERATE EFFECT
- C** MODERATE TO SEVERE EFFECT
- U** NOT RECOMMENDED
- \*** NO DATA OR INSUFFICIENT EVIDENCE

*It should be noted that it is not expected that a polymer unrated would perform better than those that are rated.*

	NATURAL RUBBER	BUNA N	EPDM	HYPALON	VITON
Acetaldehyde	C	U	A	C	U
Acetamide	C	A	A	B	B
Acetic Acid, Glacial	B	C	A	C	C
Acetic Acid, 30%	B	B	A	A	B
Acetic Anhydride	B	C	B	A	U
Acetone	B	U	A	B	U
Acetophenone	C	U	A	U	U
Acetyl Chloride	*	*	*	U	A
Acetylene	B	B	A	B	A
Acrylonitrile	U	U	U	C	U
Adipic Acid	*	A	*	*	*
Alkazene	*	*	U	*	B
Alum-NH <sub>3</sub> -Cr-K	A	A	A	A	U
Aluminum Acetate	A	B	A	A	*
Aluminum Chloride	A	A	A	A	A
Aluminum Fluoride	B	A	A	A	A
Aluminum Nitrate	A	A	A	A	*
Aluminum Phosphate	A	A	A	A	A
Aluminum Sulfate	A	A	A	A	A
Ammonia Anhydrous	A	A	A	B	U
Ammonia Gas (Cold)	A	A	A	A	*
Ammonia Gas (Hot)	*	*	B	B	U
Ammonium Carbonate	A	U	A	*	*
Ammonium Chloride	A	A	A	A	*
Ammonium Hydroxide	U	U	A	A	B
Ammonium Nitrate	C	A	A	A	*
Ammonium Nitrite	A	A	A	A	*
Ammonium Persulfate	A	U	A	A	*
Ammonium Phosphate	B	A	A	A	*
Ammonium Sulfate	A	A	A	A	*
Amyl Acetate	B	U	A	U	U
Amyl Alcohol	B	B	A	A	B
Amyl Borate	U	A	U	A	A
Amyl Chloronaphthalene	U	*	U	U	A

	NATURAL RUBBER	BUNA N	EPDM	HYPALON	VITON
Amyl Naphtholene	U	U	U	U	A
Aniline	U	U	B	C	C
Aniline Dyes	B	U	B	B	B
Aniline Hydrochloride	B	B	B	U	B
Animal Fats	U	A	B	B	A
Ansul Ether	U	C	C	U	U
Aqua Regia	U	*	C	C	B
Arochlor(s)	U	C	C	*	A
Arsenic Acid	B	A	A	A	A
Arsenic Trichloride	*	A	*	*	*
Askarel	U	B	U	U	A
Asphalt	U	B	U	C	A
Berium Chloride	A	A	A	A	A
Berium Hydroxide	A	A	A	A	A
Berium Sulfate	A	A	A	A	A
Berium Sulfide	A	A	A	A	A
Beer	A	A	A	A	A
Beet Sugar Liquors	A	A	A	A	A
Benzene	U	U	U	U	A
Benzenesulfonic Acid	*	*	*	A	A
Benzoldehyde	*	U	A	U	U
Benzyl Alcohol	*	U	B	B	A
Benzyl Benzoate	*	*	B	*	A
Benzyl Chloride	*	U	*	*	A
Benzoic Acid	*	*	*	*	A
Blast Furnace Gas	U	U	*	*	A
Bleach Solutions	U	*	A	A	A
Borax	B	B	A	A	A
Bordeaux Mixture	B	*	A	A	A
Boric Acid	A	A	A	A	A
Brine	*	A	A	A	*
Bromine Anhydrous	*	*	*	U	A
Bromine Trifluoride	U	U	U	U	U
Bromine Water	*	*	*	A	A

	NATURAL RUBBER	BUNA N	EPDM	HYPALON	VITON
Bromobenzene	U	U	U	U	A
Bunker Oil	*	A	*	*	A
Butadiene	U	U	C	B	B
Butane	U	A	U	A	A
Butter	U	A	A	B	A
Butyl Acetate	*	*	B	U	U
Butyl Acetyl Ricinoleate	*	*	A	B	A
Butyl Acrylate	*	*	U	*	U
Butyl Alcohol	A	A	B	A	A
Butyl Amine	U	C	U	U	U
Butyl Benzoate	*	*	A	U	A
Butyl Carbitol	*	A	A	B	A
Butyl Cellosolve	*	C	A	B	U
Butyl Oleate	U	*	B	U	A
Butyl Stearate	U	B	B	*	A
Butylene	U	B	U	C	A
Butyraldehyde	C	C	B	C	U
Calcium Acetate	A	B	A	B	U
Calcium Bisulfite	U	A	U	A	A
Calcium Chloride	A	A	A	A	A
Calcium Hydroxide	A	C	A	A	A
Calcium Hypochlorite	U	A	A	A	A
Calcium Nitrate	A	A	A	A	A
Calcium Sulfide	B	B	A	A	A
Cane Sugar Liquors	A	A	A	A	A
Carbamate	U	C	B	B	A
Carbitol	B	B	B	B	B
Carbolic Acid	U	U	B	C	A
Carbon Bisulfide	*	C	U	U	A
Carbon Dioxide	B	A	B	A	A
Carbonic Acid	A	A	A	A	A
Carbon Monoxide	B	A	A	A	A
Carbon Tetrachloride	U	C	U	U	A
Caster Oil	A	A	B	A	A
Cellosolve	U	*	B	B	C
Cellosolve Acetate	U	U	B	*	U
Cellulube	*	U	A	U	A
Chlorine (Dry)	U	*	*	B	A
Chlorine (Wet)	U	*	C	C	A
Chlorine Dioxide	*	U	C	C	A
Chlorine Trifluoride	U	U	U	U	U
Chloroacetone	B	U	A	B	U
Chloroacetic Acid	*	*	B	*	*
Chlorobenzene	U	U	U	U	A
Chlorobromomethane	U	*	B	U	B
Chlorobutadiene	U	U	U	*	A
Chlorododecane	U	U	U	*	A

	NATURAL RUBBER	BUNA N	EPDM	HYPALON	VITON
Chloroform	U	U	U	U	A
O-Chloronaphthalene	U	U	U	*	A
1-Chloro 1-Nitro Ethane	U	U	U	U	C
Chlorosulfonic Acid	U	U	U	U	C
Chlorotoluene	U	U	U	U	A
Chrome Plating Solutions	U	U	U	C	A
Chromic Acid	U	U	C	B	A
Citric Acid	U	U	C	B	A
Cobalt Chloride	A	A	A	*	*
Coconut Oil	U	A	A	B	*
Cod Liver Oil	U	A	A	B	A
Coke Oven Gas	U	*	*	*	A
Copper Acetate	*	B	A	B	*
Copper Chloride	A	A	A	A	A
Copper Cyanide	A	A	A	A	A
Copper Sulfate	B	A	A	A	A
Corn Oil	U	A	C	B	A
Cottonseed Oil	U	A	A	B	A
Creosote	U	B	U	C	A
Cresol	U	C	U	C	A
Cresylic Acid	U	C	U	C	A
Cumene	*	*	*	U	A
Cyclohexane	U	A	U	U	A
Cyclohexanol	B	B	U	A	A
Cyclohexanone	*	U	B	U	U
p-Cymene	*	*	*	U	A
Decalin	U	*	*	U	A
Decane	U	B	*	U	A
Denatured Alcohol	A	A	A	A	A
Detergent Solutions	B	A	A	A	A
Developing Fluids	A	A	B	A	A
Diacetone	*	*	A	*	U
Diacetone Alcohol	U	U	A	A	*
Dibenzyl Ether	U	U	B	*	*
Dibenzyl Sebecate	*	*	B	*	B
Dibutyl Amino	U	U	U	U	U
Dibutyl Ether	U	C	C	C	C
Dibutyl Phthalate	C	U	A	U	B
Dibutyl Sebecate	U	U	B	U	B
O-Dechlorobenzene	U	U	U	U	A
Dichloro-Isopropyl Ether	U	U	C	U	C
Dichlorohexylamine	U	C	*	*	*
Diesel Oil	U	A	U	B	A
Diethylamine	B	C	N	C	U
Diethyl Benzene	U	U	U	U	A
Diethyl Ether	U	U	U	C	U
Diethylene Glycol	A	A	A	A	A

	NATURAL RUBBER	BUNA N	EPDM	HYPALON	VITON
Diethyl Sebecate	*	U	B	U	B
Dilsobutylene	*	B	*	C	A
Dilsopropyl Benzene	U	U	U	U	A
Dilsopropyl Ketone	*	U	A	U	U
Dimethyl Aniline	U	*	B	*	U
Dimethyl Formamide	*	B	*	C	U
Dimethyl Phiholate	U	U	B	U	B
Dinitrotoluene	U	U	U	U	C
Diocyl Phiholate	*	*	B	U	B
Diocyl Sebecate	U	U	B	U	B
Dioxane	*	*	B	*	*
Dioxolane	U	U	B	*	*
Dipentene	*	B	*	*	A
Diphenyl	*	*	*	*	A
Diphenyl Oxides	*	*	A	*	A
Dowtherm Oil	U	*	U	U	A
Dry Cleaning Fluids	U	C	U	U	A
Epichlorohydrin	U	*	B	*	U
Ethane	U	A	U	B	A
Ethanolamine	B	B	B	B	U
Ethyl Acetate	U	U	B	C	U
Ethyl Acetoacetate	C	U	B	*	U
Ethyl Acrylate	*	*	B	*	U
Ethyl Alcohol	A	A	A	A	A
Ethyl Benzene	U	U	U	U	A
Ethyl Benzoate	*	*	B	*	A
Ethyl Cellosolve	*	*	B	*	U
Ethyl Cellulose	B	*	B	B	U
Ethyl Chloride	B	A	A	C	A
Ethyl Chlorocarbonate	U	*	*	C	A
Ethyl Chloroformate	U	*	*	C	A
Ethyl Ether	*	C	C	U	U
Ethyl Formate	U	U	B	B	A
Ethyl Mercapian	U	U	U	*	A
Ethyl Oxalate	A	U	A	*	A
Ethyl Pentochlorobenzene	U	C	U	U	A
Ethyl Silicate	B	A	A	A	A
Ethylene	*	A	*	*	A
Ethylene Chloride	*	*	C	*	A
Ethylene Chlorohydrin	B	U	*	B	A
Ethylene Diamine	B	A	A	A	U
Ethylene Dichloride	U	U	C	U	A
Ethylene Glycol	A	A	A	A	A
Ethylene Oxide	*	U	C	U	U
Ethylene Trichloride	*	U	C	U	A
Fatty Acids	C	B	U	B	A
Ferric Chloride	A	A	A	A	A

	NATURAL RUBBER	BUNA N	EPDM	HYPALON	VITON
Ferric Nitrate	A	A	A	A	A
Ferric Sulfate	A	A	A	A	A
Fish Oil	*	A	*	*	A
Fluoboric Acid	A	A	A	A	*
Fluorine (Liquid)	*	*	C	*	B
Fluorobenzene	U	U	U	U	A
Fluorocarbon Oils	*	*	A	*	*
Fluorolube	*	A	A	A	B
Fluorinated Cyclic Ethers	*	*	A	*	*
Fluosilicic Acid	A	A	*	A	*
Formaldehyde	*	B	A	A	A
Formic Acid	A	B	A	A	C
Freon 11	U	A	U	A	A
Freon 12	B	A	B	A	B
Freon 13	A	A	A	A	A
Freon 21	U	U	U	U	U
Freon 22	A	U	A	A	U
Freon 31	B	U	A	B	U
Freon 32	A	A	A	A	C
Freon 112	U	B	U	B	A
Freon 113	C	A	U	A	B
Freon 114	A	A	A	A	B
Freon 115	A	A	A	A	B
Freon 142b	A	A	A	A	U
Freon 152a	A	A	A	C	U
Freon 218	A	A	A	A	A
Freon C316	A	A	A	A	*
Freon C318	A	A	A	A	A
Freon 13B1	A	A	A	A	A
Freon 114B2	U	B	U	A	B
Freon 502	A	B	*	*	B
Freon TF	C	A	U	A	A
Freon T-WD602	C	B	B	B	A
Freon TMC	B	B	B	B	A
Freon T-P35	A	A	A	A	A
Freon TA	A	A	A	A	C
Freon TC	U	A	B	A	A
Freon MF	U	A	*	U	*
Freon BF	U	B	*	B	*
Fuel Oil	U	A	U	B	A
Fumaric Acid	A	A	*	B	A
"Futan, Furfuran"	U	U	C	U	*
Furfural	C	U	B	B	U
Gallic Acid	A	B	B	B	A
Gasoline	U	A	U	B	A
Gelatin	A	A	A	A	A
Glauber's Salt	*	*	B	*	A

	NATURAL RUBBER	BUNA N	EPDM	HYPALON	VITON
Glucose	A	A	A	A	A
Glue	A	A	A	A	A
Glycerine	A	A	A	A	A
Gycols	A	A	A	A	A
Green Sulfate Liquor	B	B	A	B	A
Halowax Oil	U	U	U	U	A
n-Hexaldehyde	U	U	A	*	*
Hexene	U	A	U	B	A
n-Hexene-1	U	A	U	B	A
Hexyl Alcohol	A	A	C	B	A
Hydrozine	*	B	A	B	*
Hydraulic Oil (Petroleum)	U	A	U	B	A
Hydrobromic Acid	A	U	A	A	A
Hydrochloric Acid (Hot) 37%	U	U	C	C	A
Hydrochloric Acid (Cold) 37%	B	B	A	A	A
Hydrocyanic Acid	B	B	A	A	A
Hydrofluoric Acid (Conc.) Hot	U	U	U	C	B
Hydrofluoric Acid (Conc.) Cold	U	U	B	A	A
Hydrofluoric Acid-Anhydrous	U	*	B	A	*
Hydrofluosilicic Acid	A	B	A	A	A
Hydrogen Gas	B	A	A	A	A
Hydrogen Peroxide (90%)	U	U	C	C	B
"Hydrogen Sulfide (Wet, Cold)"	U	U	A	B	U
"Hydrogen Sulfide (Wet, Hot)"	U	U	A	C	U
Hydroquinene	B	C	*	*	U
Hypochlorous Acid	B	U	B	*	A
Iodine Pentafluoride	U	U	U	U	U
Iodoform	*	*	A	*	*
Isobutyl Alcohol	A	B	A	A	A
Isoectane	U	A	U	B	A
Isopherone	*	U	A	*	U
Isopropyl Acetate	*	U	A	U	U
Isopropyl Alcohol	A	B	A	A	A
Isopropyl Chloride	U	U	U	*	A
Isopropyl Ether	U	B	U	B	U
Kerosene	U	A	U	C	A
Lacquers	U	U	U	U	U
Lacquer Solvents	U	U	U	U	U
Lactic Acid	A	A	A	A	A
Lard	U	A	U	C	A
Lavender Oil	U	B	U	*	A
Lead Acetate	A	B	A	*	*
Lead Nitrate	A	A	A	A	*
Lead Sulfamate	B	B	A	A	A
Lime Bleach	A	A	A	B	A
Lime Sulfur	U	U	A	A	A
Lindol	*	*	A	C	B

	NATURAL RUBBER	BUNA N	EPDM	HYPALON	VITON
linoleic Acid	*	B	U	*	B
Linseed Oil	U	A	B	B	A
Liquefied Petroleum Gas	U	A	U	B	A
Lubricating Oils (Petrolatum)	U	A	U	B	A
Lye	B	B	A	A	B
Magnesium Chloride	A	A	A	A	A
Magnesium Hydroxide	B	B	A	A	A
Magnesium Sulfate	B	A	A	A	A
Maleic Acid	B	*	C	*	A
Maleic Anhydride	B	*	C	*	A
Malic Acid	*	A	U	B	A
Mercuric Chloride	A	A	A	A	A
Mercury	A	A	A	A	A
Mesityl Oxide	U	U	B	U	U
Methane	U	A	U	B	A
Methyl Acetate	U	U	B	*	U
Methyl Acrylate	U	U	B	*	U
Methylacrylic Acid	U	*	B	*	B
Methyl Alcohol	A	A	A	A	C
Methyl Bromide	*	B	*	U	A
Methyl Butyl Ketone	U	U	A	U	U
Methyl Cellosolve	U	*	B	B	U
Methyl Chloride	U	U	C	U	A
Methyl Cyclopentane	U	*	U	*	A
Methylene Chloride	U	U	U	U	B
Methyl Ethyl Ketone	U	U	A	U	U
Methyl Formate	U	U	B	B	*
Methyl Isobutyl Ketone	U	U	C	U	U
Methyl Methacrylate	U	U	U	*	U
Methyl Oleate	U	U	B	*	A
Methyl Salicylate	*	*	B	*	*
Milk	A	A	A	A	A
Mineral Oil	U	A	U	B	A
Monochlorobenzene	U	U	U	U	A
Monomethyl Aniline	U	U	*	U	B
Monoethanolamine	B	U	B	U	U
Monomethylether	B	A	A	*	*
Monovinyl Acetylene	B	A	A	B	A
Mustard Gas	A	*	A	A	*
Naptha	U	C	U	U	A
Naphthalene	U	U	U	U	A
Naphthanic Acid	U	B	U	*	A
Natural Gas	C	A	U	A	A
Neatsfoot Oil	U	A	B	*	A
Neville Acid	U	C	B	*	A
Nickel Acetate	A	B	A	*	U
Nickel Chloride	A	A	A	A	A



	NATURAL RUBBER	BUNA N	EPDM	HYPALON	VITON
Nickel Sulfate	B	A	A	A	A
Niter Cake	A	A	A	A	A
Nitric Acid-Concentrate	U	U	C	B	A
Nitric Acid-Dilute	U	U	B	A	A
Nitric Acid-Red Fuming	U	U	U	U	C
Nitrobenzene	U	U	U	U	B
Nitrobenzine	*	*	U	C	A
Nitroethane	B	U	B	C	U
Nitromethane	B	U	B	C	U
Nitrogen	A	A	A	A	A
Nitrogen Tetroxide	U	U	C	U	U
Octadecane	U	A	U	B	A
n-Octane	U	*	U	*	A
Octachlorotoluene	U	U	U	U	A
Octyl Alcohol	B	B	A	A	A
Oleic Acid	C	C	B	C	B
Oleum Spirits	*	B	*	B	A
Olive Oil	U	A	B	B	A
o-Dechlorobenzene	*	U	*	U	A
Oxalic Acid	B	B	A	B	A
Oxygen-Cold	B	B	A	B	A
Oxygen-200°-400° F	U	U	U	U	B
Ozone	U	U	A	A	A
"Paint Thinner, Duco"	U	*	U	*	B
Palmitic Acid	B	A	B	B	A
Peanut Oil	U	A	C	B	A
Perchloric Acid	*	*	B	A	A
Perchloroethylene	U	C	U	U	A
Petroleum-Below 250	U	A	U	B	A
Petroleum-Above 250	U	C	U	U	B
Phenol	*	*	B	C	A
Phenylbenzene	U	U	U	U	A
Phenyl Ethyl Ether	U	U	U	U	*
Phenyl Hydrozine	A	U	C	C	A
Phorone	*	*	B	*	*
Phosphoric Acid-20%	B	B	A	A	A
Phosphoric Acid-45%	U	U	B	B	A
Phosphorous Trichloride	U	U	A	U	A
Pickling Solution	*	*	C	C	B
Picric Acid	B	B	B	B	A
Pinene	U	B	U	B	A
Pine Oil	U	B	U	U	A
Piperidine	U	U	U	U	U
Plating Solution-Chrome	U	*	A	C	A
Plating Solution-Others	*	A	A	A	A
Polyvinyl Acetate Emulsion	*	*	A	B	*
Potassium Acetate	A	B	A	B	U

	NATURAL RUBBER	BUNA N	EPDM	HYPALON	VITON
Potassium Chloride	A	A	A	A	A
Potassium Cupro Cyanide	A	A	A	A	A
Potassium Cyanide	A	A	A	A	A
Potassium Dichromate	B	A	A	A	A
Potassium Hydroxide	B	A	A	A	A
Potassium Nitrate	A	A	A	A	A
Potassium Sulfate	B	A	A	A	A
Producer Gas	U	A	U	B	A
Propane	U	A	U	A	A
Propyl Acetate	U	U	B	U	U
n-Propyl Acetate	U	U	A	*	U
Propyl Alcohol	A	A	A	A	A
Propyl Nitrate	*	*	B	*	U
Propylene	U	U	U	U	A
Propylene Oxide	*	*	B	U	*
Pyranol	U	A	U	U	A
Pydrauls	U	U	B	U	A
Pyridine	U	U	B	U	U
Pyrolygneous Acid	*	*	B	B	*
Pyrrrole	C	U	C	*	*
Radiation	B	B	B	B	U
Rapeseed Oil	U	B	A	B	A
Red Oil	U	A	U	B	A
Sal Ammoniac	A	A	A	A	A
Salicylic Acid	A	A	A	*	A
Salt Water	A	A	A	A	A
Sewage	B	A	B	A	A
Silicate Esters	U	B	U	A	A
Silicone Greases	A	A	A	A	A
Silicone Oils	A	A	A	A	A
Silver Nitrate	A	B	A	A	A
Skydrol 500	U	U	A	U	U
Skydrol 7000	U	U	A	U	B
Soap Solutions	B	A	A	A	A
Soda Ash	A	A	A	A	A
Sodium Acetate	A	B	A	B	U
Sodium Bicarbonate	A	A	A	A	A
Sodium Bisulfite	A	A	A	A	A
Sodium Borate	A	A	A	A	A
Sodium Chloride	A	A	A	A	A
Sodium Cyanide	A	A	A	A	A
Sodium Hydroxide	A	B	A	A	A
Sodium Hypochlorite	C	B	B	B	A
Sodium Metaphosphate	A	A	A	B	A
Sodium Nitrate	B	B	A	A	*
Sodium Perborate	B	B	A	B	A
Sodium Peroxide	B	B	A	B	A

	NATURAL RUBBER	BUNA N	EPDM	HYPALON	VITON
Sodium Phosphate	A	A	A	A	A
Sodium Silicate	A	A	A	A	A
Sodium Sulfate	B	A	A	A	A
Sodium Thiosulphate	B	B	A	A	A
Soybean Oil	U	A	C	B	A
Stennic(ous) Chloride	A	A	B	A	A
Steam Under 300°F	U	U	A	U	U
Steam Over 300°F	U	U	B	U	U
Stearic Acid	B	B	B	B	*
Stoddard Solvent	U	A	U	C	A
Styrene	U	U	U	U	B
Sucrose Solution	A	A	A	A	*
Sulfite Liquers	B	B	B	B	A
Sulfur	U	U	A	A	A
Sulfur Chloride	U	C	U	B	A
Sulfur Dioxide	C	U	A	C	A
Sulfur Hexafluoride	*	A	A	A	A
Sulfur Trioxide	B	U	B	U	A
Sulfuric Acid (Dilute)	C	U	B	A	A
Sulfuric Acid (Concentrated)	U	U	B	B	A
Sulfuric Acid (20% Oleum)	U	U	U	U	A
Sulfurous Acid	B	B	B	A	A
Tannic Acid	A	A	A	A	A
"Tar, Bituminous"	U	B	U	C	A
Tartaric Acid	A	A	B	A	A
Terpineol	U	B	U	C	A
Tertiary Butyl Alcohol	B	B	B	B	A
Tertiary Butyl Catechol	U	U	B	B	A
Tertiary Butyl Mercaptan	U	U	U	U	A
Tetrabromomethane	U	U	U	*	A
Tetrabutyl Titanate	B	B	A	A	A
Tetrachlorethylene	U	U	U	*	A
Tetraethyl Lead	U	B	U	C	A
Tetrahydrofuran	U	*	B	*	U
Tetralin	U	U	U	U	A
Thionyl Chloride	U	*	U	*	A
Titanium Tetrachloride	U	C	U	U	A
Toluene	U	U	U	U	A
Toluene Diisocyanate	C	*	A	U	*
Transformer Oil	U	A	U	B	A
Transmission Fluid Type A	U	A	U	B	A
Triacetin	B	B	A	B	U
Tributoxy Ethyl Phosphate	B	U	A	U	A
Tributyl Phosphate	B	U	A	C	U
Tributyl Mercaptan	U	U	U	U	A
Trichlorethane	U	U	U	U	A
Trichloreacetic Acid	C	B	B	B	C

	NATURAL RUBBER	BUNA N	EPDM	HYPALON	VITON
Trichlorethylene	U	C	U	U	A
Tricresyl Phosphate	U	U	A	C	B
Triethanol Amine	B	C	B	A	U
Triethyl Aluminum	*	*	*	*	B
Triethyl Borane	*	*	*	*	A
Trinitrotoluene	U	U	U	B	B
Triactyl Phosphate	U	U	A	U	B
Triaryl Phosphate	U	U	A	C	A
Tung Oil	U	A	U	B	A
Turbine Oil	U	B	U	B	A
Turpentine	U	A	U	U	A
Unsymmetrical Dimethyl hydrozine (UDMH)	*	B	A	A	U
Varnish	U	B	U	C	A
Vegetable Oils	U	A	A	B	A
Versalube	A	A	A	A	A
Vinegar	B	B	A	A	A
Vinyl Chloride	*	*	B	U	A
Wagner 21B Fluid	*	C	A	B	U
Water	A	A	A	A	A
Whiskey, Wines	A	A	A	A	A
White Pine Oil	U	B	U	U	A
White Oil	U	A	U	B	A
Wood Oil	U	A	U	B	A
Xylene	U	U	U	U	A
Xylidenes	U	C	U	U	U
Zeolites	A	A	A	A	A
Zinc Acetate	A	B	A	B	U
Zinc Chloride	A	A	A	A	A
Zinc Sulfidet	B	A	A	A	A

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