

Chemical Resistance Data

COMMON NAME	ASTM Designation D1418-93	COMPOSITION	GENERAL PROPERTIES
Natural rubber	NR	Isoprene rubber	Excellent physical properties, including abrasion resistance. Not oil resistant
SBR	SBR	Styrene-butadiene rubber	Good physical properties, including abrasion resistance. Not oil resistant.
Butyl rubber	IIR	Isobutene-isoprene rubber	Very good weathering resistance. Low permeability to air. Good physical properties. Poor resistance to petroleum based fluids.
EPDM	EPDM	Ethylene-propylene-diene-terpolymer	Good general purpose polymer. Excellent heat, ozone and weathering resistance. Not oil resistant. Very good steam resistance.
Cross linked polyethylene	XLPE	Crossed linked polyethylene	Excellent resistance to most solvents, oils and chemicals. Do not confuse with chemical properties of standard polyethylene.
Ultra high molecular weight polyethylene	UHMWPE	Ultra high molecular weight polyethylene	Excellent resistance to most solvents, chemicals and hydrocarbons. Excellent abrasion and wear resistance. Inert and suitable for food contact. Do not confuse with chemical properties of standard polyethylene.
Teflon/Fluorocarbon resin	PTFE	Polytetra-fluoroethylene	Excellent chemical and solvent resistance. Inert to most materials. Smooth anti-adhesive surface , easy to clean.
Nitrile rubber	NBR	Acrylonitrile-butadiene rubber	Excellent oil resistance. Good physical properties.
Neoprene	CR	Chloroprene rubber	Excellent weathering resistance. Flame retardant. Good oil resistance. Good physical properties.
Hypalon®	CSM	Chloro-sulfonated polyethylene	Excellent ozone, weathering and acid resistance. Good abrasion and heat resistance. Can be compounded for good oil resistance.
Polyurethane	AU	Polyester urethane	Excellent abrasion and wear resistance. Not resistant to hydrolysis.
Viton	FKM	Fluorocarbon rubber	Excellent high temperature resistance, particularly in air or oil. Very good resistance to chemicals.

The chemical guide in this section is offered as a general indication of the compatibility of the various materials used in hose with the chemicals and fluids listed. The basis for the ratings in this guide include actual service experience, the advice of various polymer suppliers, and the considered opinion of our rubber chemists. When in doubt, a sample of the compound should always be tested with the particular chemical it is to handle. Some of the variables that come into play in the resistance of a compound to chemical attack are:

1. Temperature of the Material Transmitted:

Higher temperatures increase the effect of chemicals on rubber compounds. The increase varies with the polymer and the chemical. A compound quite suitable at room temperature might fail very quickly at higher temperatures.

2. Service Conditions:

A rubber compound usually swells when exposed to a chemical. With a given percent of swell, a hose tube may function satisfactorily if the hose is in a static condition, but fail quickly if the hose is subject to flexing.

3. The Grade or Blend of the Rubber Compound:

Basic rubber polymers are sometimes mixed or blended together to enhance a particular property for a specific service. The reaction to a particular chemical blend of polymers may, therefore, somewhat different from the reaction to the single ones. When in doubt, a sample of the compound should always be tested with the particular chemical it is to handle.

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CHEMICAL	COMPOUND												
OR MATERIAL CONVEYED	NR	SBR	IIR	EPDM	XLPE	UHMWPE	PTFE	NBR	CR	CSM	AU	FKM	
ACETALDEHYDE		X	E	E	E	E	G	X	C	C	X		
ACETIC ACID, GLACIAL	X	X	G	G	E	E	C	X	F	X	X	X	
ACETIC ACID, 10%	F	F	E	E	E	E	G	E	E	F	X	C	
ACETIC ACID, 50%	G	X	E	E	E	E	G	F	F	X	X	C	
ACETIC ANHYDRIDE	F	X	E	G	E	E	G	X	G	G	X	X	
ACETIC OXIDE	F	G	E	G	E	E	E	X	G	G		X	
ACETONE	C	C	E	E	E	E	G	X	C	F	X	X	
ACETONE CYANOHYDRIN	F	F	E	E				X	G	F		X	
ACETONITRILE				E				X	E				
ACETOPHENONE	X	X	E	E	E	E	E	X	X	X	X	X	
ACETYL ACETONE	X	X	G	E				X	X	X	X	X	
ACETYL CHLORIDE	X	X	X	X			G	X	X	X	X	E	
ACETYL OXIDE	F	G	E	G	E	E		X	G	G		X	
ACETYLENE	E	E	E	E	E	E	F	E	E	E	C	F	
ACETYLENE DI-+TERA CHLORIDE	X	X	X	C				X	C	X		G	
ACROLEIN	G	F	E	E				F	G	G		E	
ACRYLONITRILE	X	X	X	E	E	E	G	X	X	C	X	X	
ACRYLIC ACID				X				X	X				
ADIPIC ACID		G	E	C	E	E		E	E	E	E		
AIR, +300 °F	X	X		G				G	G	X	X	X	
ALK-TRI	X		X	X				X	X	X		E	
ALLYL ALCOHOL	E	E	E	E	E	E		E	E	E		E	
ALLYL BROMIDE	X	X	X	X				X	X	X		G	
ALLYL CHLORIDE	X	X	F	X	E	F		G	X	X		G	
ALUM	E	E	E	G	E	E	E	C	E	E		E	
ALUMINIUM ACETATE	X	X	G	E			E	C	C		X	X	
ALUMINIUM CHLORIDE	E	E	E	E	E	E	E	E	E	E	E	E	
ALUMINIUM FLUORIDE	G	E	E	E	E	E	E	E	E	E	C	C	
ALUMINIUM FORMATE	X	X	G	E				X	E	X		X	
ALUMINIUM HYDROXIDE	E			E	E	E		E	E	G			
ALUMINIUM NITRATE	E	E	E	E			E	E	E	E	C	E	
ALUMINIUM SULFATE	E	E	E	E	E	E	E	E	G	E	X	E	
ALUMUS-NH3-CR-K	E	E	E	E			E	E	E	E		E	
AMINES-MIXED	G	G	G	G				X	C	X	X	X	
AMINO BENZENE				G	E	E		X	X				
AMINODIMETHILBENZENE				C				C	X				

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AMINOETHANE				E	E	E		C	C			
AMINOXYLENE				E				C	X			
AMMONIUM CARBONATE	E	E	E	E				C	E		G	C
AMMONIUM CHLORIDE	E	E	E	E	E	E	E	G	E	E	E	C
AMMONIUM HYDROXIDE	X	X	E	E	E	E	E	C	E	G	X	C
AMMONIUM NITRATE		E	E	E	E	E	E	E	E	E	X	C
AMMONIUM PHOSPHATE, DIBASIC	E	E	E	E	E	E	E	E	E	E		C
AMMONIUM SULFATE	E	E	E	E	E	E	E	E	E	E	E	X
AMMONIUM SULFIDE	E	E	E	E	E	E		C	E	E		E
AMMONIUM THIOSULFATE	E	E	E	E			E	C	E	E	G	E
AMYL ACETATE	X	X	E	C	E	E	C	X	X	X	X	X
AMYL ACETONE	X	X	G	G				X	X	X		X
AMYL ALCOHOL	E	E	E	E	E	E	E	C	C	E	X	G
AMYL BROMIDE				C				X	X			
AMYL CHLORIDE	X	X	X	X	E	E	E	X	X	X	C	G
AMYL ETHER				X				C	X			
AMYLAMINE	G	G	E	X				F	C	F		
ANETHOLE	X	X	X	X				X	X	X		G
ANILINE	X	X	E	C	E	E	E	X	X	X	X	C
ANILINE DYES	G	G	G	C	E	E	F	X	C	G	X	G
ANILINE OIL	X	X	G	C	E	E		X	X	X	X	C
ANIMAL FATS	X	X	G	C	E	E		E	C	X	C	E
ANTIMONY PENTACHLORIDE	X	X	X	C	E	E		X	C	X		
AQUA REGIA	X	X	X	C	X	X	E	X	X	C	X	G
ARGON	X	X	G	E			E	E	G	X	E	
ARSENIC ACID	E	E	E	E	E	E	E	E	E	E	C	E
ASPHALT	X	X	X	X	E	E	E	C	C	X	G	E
ASTM FUEL A	X	X	X	X			E	E	C	G	E	E
ASTM FUEL B	X	X	X	X			E	C	X	X	E	E
ASTM FUEL C	X	X	X	X			E	C	X	X	X	E
ASTM OIL NO.1	X	X	X	X	E	E	E	E	E	G	E	E
ASTM OIL NO.2	X	X	X	X	E	E	E	E	C	X	E	E
ASTM OIL NO.3	X	X	X	X	E	E	E	E	C	X	E	E
ASTM OIL NO.4	X	X	X	X				C	X	X	X	E
AUTOMATIC TRANSMISSION FLUID	X	X	X	X				E	C	C	G	E
BANANA OIL		X	C	C				X	X			
BARIUM CHLORIDE	E	E	E	E	E	E	E	E	E	E	G	E
BARIUM HYDROXIDE	E	E	E	E	E	E	E	E	E	E	E	E
BARIUM SULPHIDE	E	E	E	E	E	E	E	E	E	E	E	E

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BEER	E	E	E	E	E	E	E	E	E	E	X	E
BEET SUGAR LIQUORS	E	E	E	E	E	E	E	E	C	E	X	E
BENZAL CHLORIDE			G					X				
BENZALDEHYDE	X	X	E	E	E	E	C	X	X	X	X	X
BENZENE	X	X	X	C	E	F	G	X	C	X	X	E
BENZENE CARBOXYLIC ACID				C				X	E			
BENZINE	X	X	X	X	E	E	E	E	C	X	G	E
BENZOIC ACID	X	X	X	C			G	X	E	X	X	E
BENZOL				C	E	F	E	X	C			
BENZOTRICHLORIDE				E				X	X			
BENZYL ACETATE	X	X	G	E				X	E	X		X
BENZYL ALCOHOL	X	X	X	C			E	X	C	F	X	E
BENZYL CHLORIDE	C	C	G	X			E	X	X	C		C
BENZYL ETHER				C				X	X			
BLACK SULFATE LIQUOR	G	G	E	G	E	E	E	G	G	G	X	E
BLEACH	X	X	G	E	G	F	E	X	C	F	X	G
BORAX SOLUTION	G	G	E	E	E	E	E	C	E	E	G	E
BORIC ACID	E	E		E	E	E	E	E	E	E	E	E
BRAKE FLUID (HD-557) 12 DAYS		E	G	E			E	C	C	G		X
BRINE	E	E	E	E	E	E	E	E	E	E		E
BROMOBENZENE	X	X	X	X				X	X	X	X	G
BROMOCHLOROMETANE	X	X	G	G	F	F		X	X	X		X
BROMOETHANE				X	E	E		C	X			
BROMOTOLUENE	X	X	X					X		X		G
BUNKER OIL	X	E	X	X			E	E	G	X	G	E
BUTADIENE	X	X	X	X	E	E	E	X	X	C	X	G
BUTANE	X	X	E	X	E	E	E	E	E	G	E	E
BUTANOIC ACID				C				C	X			
BUTANOL (BUTYL ALCOHOL)	E	E	E	C	E	E	E	E	E	E	G	E
BUTANONE				E	E	E	G	X	X		X	
BUTOXYETHANOL				E				C	X			
BUTYL ACETATE	X	X	G	C	E	E	C	X	X	X	X	X
BUTYL ACRYLATE	X		X	C	E	E		X	X	X		X
BUTYL ALCOHOL	E	E	E	C	E	E	G	E	E	E	G	E
BUTYL ALDEHYDE	F		E	C	E	E		X	X			X
BUTYL BENZYL PHTHALATE	X	X	E	E	E	E		X	E	X		C
BUTYL CARBITOL	X	X	E	E			E	X	X	C		C
BUTYL CELLOSOLVE	X	X	E	C	E	E	E	C	X	X	E	X
BUTYL CHLORIDE	X	X	F	X				X	X	X		G

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BUTYL ETHER	X	X	C	C	E	E		X	C	X	G	X
BUTYL ETHER ACETALDEHYDE	X	X	E	X				X	X	X		X
BUTYL ETHYL ETHER	X	X	G	F				G	X	X		
BUTYL OLEATE	X	X	G	C				X	X	X		E
BUTYL PHTHALATE	X	X	E	E	E	E		X	X	X		F
BUTYL STEARATE	X	X	X	X	E	E	E	C	X	X		C
BUTYLENE	X	X	X	X				C	C	X	X	E
BUTYRALDEHYDE	X	X	E	C	E	E	E	X	X	X	X	X
BUTYRIC ACID	F	X	F	C	E	E	E	C	X	X		G
BUTYRIC ANHYDRIDE	F	X	F	E				C	G	G		X
CADMIUM ACETATE	X	X	G					X		X		
CALCIUM ALUMINATE	E	E	E					E		E		E
CALCIUM BICHROMATE			E	E				C	E	F		
CALCIUM BISULFIDE				E			E	C	E			
CALCIUM CHLORIDE	E	E	E	E	E	E	E	E	E	E	E	E
CALCIUM HYDROXIDE	E	G	E	E	E	E	E	E	E	G	E	E
CALCIUM HYPOCHLORITE	X	X	G	E	E	E	E	C	C	F	X	X
CALCIUM NITRATE	E	E	E	E			E	E	E	E	E	E
CALCIUM SULFIDE	E	E	E	E			E	E	E	E	E	E
CALCIUM ACETATE	X	X	G	E			E	C	C	X	X	X
CAPRYLIC ACID	F	X	F					F		G		
CARBAMIDE				E	E	E		G	G			
CARBITOL	X	X	F	C	E	E	E	C	C	X	X	G
CARBOLIC ACID PHENOL	X	X	E				E					E
CARBON DIOXIDE	E	E	E	G	E	E	E	E	G	E	E	G
CARBON DISULFIDE	X	X	X	X	C	C	E	X	X	X	X	E
CARBON MONOXIDE	E	G	E	E	E	E	E	E	C	E	G	E
CARBON TETRACHLORIDE	X	X	X	X	E	E	E	X	X	X	X	E
CARBONIC ACID	E	E	E	E	E	E	E	C	E	E	X	E
CASTOR OIL	F	G	E	C	E	E	E	E	E	E	G	E
CAUSTIC SODA				G	E	E		C	G			
CELLOSOLVE ACETATE	X	X	E	G	E	E	E	X	X	X	X	X
CELLUGUARD	E	E	E	E			E	E	E	E	X	E
CETYLIC ACID				C	E	E		E	G			
CHINA WOOD OIL (TUNG OIL)	X	X	C	X	E	E		E	C	X	C	E
CHLORINATED SOLVENTS	X	X	X	X	E	E	E	X	X	X	X	E
CHLOROACETIC ACID	X	X	F	C	E	E	C	X	X	X	X	X
CHLOROACETONE	X	X	G	E	E	E	E	X	X	X	X	X
CHLOROBENZENE	X	X	X	X	E	E	E	X	X	X	X	E

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CHLOROBUTANE	X	X	F	X				X	X	X		E
CHLORODANE				X				C	C			
CHLOROTHYL BENZENE	X	X	X	X				C	X	X		G
CHLOROFORM	X	X	X	X	F	F	E	X	X	X	X	E
CHLOROPENTANE	X	X	X	X				X	X	X		E
CHLOROSULFONIC ACID	X	X	X	X	F	X	C	X	X	X	X	X
CHLOROTOLUENE	X	X	X	X			E	X	X	X	X	G
CHLOROX	X	X	G	G				C	C	G	X	E
CHROME PLATING SOLUTIONS	X	X	X	C				X	X	X	X	E
CHROMIC ACID	X	X	F	C	E	E	E	X	X	G	X	C
CHROMIUM TRIOXIDE				C				X	X			
CINNAMENE				X				C	X			
CIS-9-OCTADECENOIC ACID	X	X	G	C	E	E		G	C	X		C
CITRIC ACID	E	E	E	E	E	E	E	E	E	E	E	C
COAL TAR OIL	X	X	X	X	E	E		E	G	X		E
COAL TAR	X	X	X	X	E	E		C	C	X		E
COAL TAR NAPHTHA	X	X	X	X	E	E		X	X	X		E
COCONUT OIL	X	X	G	C	E	E	E	E	C	X	C	C
COKE OVEN GAS	X	X	X	X	E	E	C	X	X	X	X	E
COOLANOL (MONSANTO)	X	X		X				E	C	G	X	E
COPPER CHLORIDE	F	E	E	E	E	E	X	E	C	E	G	E
COPPER CYANIDE	E	E	E	E	E	E	E	E	E	E	E	E
COPPER HYDRATE	F	G	E					G		G		F
COPPER HYDROXIDE	F	G	E					G		G		F
COPPER SULFATE	F	E	E	E	E	E	E	E	E	E	G	E
CORN OIL	X	X	E	C	E	E	G	E	C	X	G	E
COTTONSEED OIL	X	X	C	C	E	E	E	E	C	X	G	E
CREOSOTE	X	X	X	X	E	E	E	C	C	X	C	E
CRESOLS	X	X	X	X	E	E	E	X	X	X	X	E
CRESYLIC ACID	X	X	X	X	E	E	E	X	X	X	X	E
CROTONALDEHYDE	X	X	E	E	E	E		X	X	X		X
CRUDE OIL	X	X	X	X	E	E	E	C	C	X		E
CUMENE	X	X	X	X			E	X	X	X	X	E
CUPRIC CARBONATE	F	E	E							E		E
CUPRIC HYDROXIDE (COPPER HYDROXIDE)								G				
CUPRIC NITRATE	F	E	E	C	E	E		C	E	E	G	E
CUPRIC SULFATE	F	E	E	E	E	E		E	E	E	G	E
CUTTING OIL	X	X	X	X			E	E	C	G	E	E

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CYCLOHEXANE	X	X	X	X	E	E	E	E	X	X	G	X
CYCLOHEXANOL	X	X	X	X	E	E	E	G	C	X		E
CYCLOHEXANONE	X	X	X	C	E	E	E	X	X	X	X	X
CYCLOPENTANE	X	X	X	X				G	C	X		E
CYCLOPENTANOL	X	X	X							X		G
CYCLOPENTANONE	X	X	X					X		X		
D-FURALDEHYDE				E				G	F			
DDT IN KEROSENE	X	X	X	X			E	E	C	X		E
DECAHYDRONAPHTHALENE				X	E	E		X	X			
DECALIN	X	X	X	X	E	E	E	X	X	X		E
DECYL ALCOHOL	E	E	E	X				E	X	E		G
DECYL ALDEHYDE	X	X	E	X				X		X		X
DECYL BUTYL PHTHALATE	X	X	E					X		X		F
DETERGENT, WATER SOLUTION	G	G	E	E	E	E	E	E	C	G	X	E
DEVELOPING FLUID (PHOTO)	E	G	G	C				E	E	E		E
DEXTRON	X	X	X	X				E	C	X	G	E
DI (2ETHYLHEXYL) ADIPATE				G	G	G		X	X			
DI (2ETHYLHEXYL) PHTHALATE				C	E	E		X	X			
DI-ISO-BUTYLENE	X	X	X	X	E			C	C	X	X	E
DI-ISO-DECYL PHTHALATE				E				X	X			
DI-ISO-PROPANOLAMINE			E	E				G	G			
DI-ISO-PROPYL ETHER	X	X	F	X	E	E		G	C	X		
DI-ISO-PROPYL KETONE	X	X	G	E	E		E	X	X	X	X	X
DI-P-MENTHA-1,8-DIENE				X				C	X			
DIACETONE ALCOHOL	X	X	E	E	E	E	E	X	F	X	X	X
DIACETYLMETHANE				E				X	X			
DIAMMONIUM PHOSPHATE				E				E	E			
DIAMYL NAPHTHALENE	X	X	E		E	E				X		F
DIAMYLAMINE	F	G	E	E				G	C	G		
DIAMYLENE	X	X	X	X					X	X		E
DIAMYLPHENOL	X	X	X		E	E		X		X		E
DIBENZYL ETHER	X	X	E	C			E	X	X	X	G	X
DIBROMOBENZENE	X	X	X	X				X	X	X		E
DIBROMOMETHANE				C				X	X			
DIBUTYL ETHER	X	X	G	C	E	E	E	X	C	X	C	C
DIBUTYL PHTHALATE	X	X	C	C	E	E	E	X	X	X	X	C
DIBUTYL SEBACATE	X	X	E	C	E	E	E	X	X	X	X	F
DIBUTYLAMINE	X	X	X	F			E	X	C	X	X	X
DICALCIUM PHOSPHATE	E	E	E	E				E	E	E		E

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DICHLOROETHYLENE				C	F	F		X	X		C	
DICHLOROACETIC ACID	G	X	F	X	E	E		X	X	X		X
DICHLOROBENZENE	X	X	X	X			G	X	X	X	X	E
DICHLOROBUTANE	X	X	X	X				C	X	X	X	E
DICHLORODIFLUOROMETHANE	X	X	X	C	E	G		C	C	X		G
DICHLOROETHANE	X	X	X	X	E	E		X	X	X		E
DICHLOROETHYL ETHER	X	X	X	X				X	X	X		
DICHLOROHEXANE	X	X	X	X				X	X	X		E
DICHLOROMETHANE	X	X	X	X				X	X	X		E
DICHLOROPENTANE	X	X	X	X				X	X	X		E
DICHLOROPROPANE	X	X	X	X	G	G	E	F	X	X		E
DICHLOROPROPENE				X	G	G	E	C	X			E
DIESEL OIL	X	X	X	X	E	E	E	E	C	C	C	E
DIETHANOL AMINE	G	G	E	G				C	G	F		
DIETHYLBENZINE	X	X	X	X				X	X	X	X	E
DIETHYL ETHER	X	X	X	X	E	E	G	X	X	X	G	X
DIETHYL KETONE	F	X	G	G	E	E		X	X	X		X
DIETHYL OXALATE	E	E	E	X				X	X	X		
DIETHYL PHTHALATE	X	X	E	F	E	E	E	X	X	X		F
DIETHYL SEBACATE	X	X	E	F				C	X	X	X	E
DIETHYL SULFATE				E				X	E			
DIETHYL AMINE	G	G	E	C	E	E	E	C	C	C	C	X
DIETHYLENE GLYCOL	E	E	E	E	E	E		E	E	E	X	E
DIETHYLENE OXIDE				E				X	X			
DIETHYLENTRIAMINE	G	G	E	E				G	X	F		
DIETHYLTRIAMINE	G	G	E							F		
DIHYDROXY SUCCINIC ACID				G				G	G			
DIHYDROXYDIETHYL ETHER	E	E	E	E	E	E		E	E	E		E
DIISOBUTYL KETONE	X	X	G	E	E	E		X	X	X		X
DIISODECYL PHTHALATE	X	X	E	E	E	E		X	X	X		F
DIISOOCTYL ADIPATE	X	X	E	E				X	X	X		F
DIISOOCTYL PHTHALATE	X	X	E	G	E	E		X	X	X		F
DIMETHYL CARBINOL				E	E	E		C	G			
DIMETHYL KETONE				E	E	E		X	C			
DIMETHYL PHTHALATE	X	X	G	C	E	E	E	X	X	X		G
DIMETHYL SULFATE				X	E	E		X	X			
DIMETHYL SULFIDE				X				X	X			
DIMETHYLAMINE				E	E	E	E	F	X			
DIMETHYLANILINE		C	C	E			E	X	X	X		

Chemical Resistance Data

DIMETHYLBENZENE				X				X	X			
DIOCTYL ADIPATE				G				X	X			
DIOCTYL PHTHALATE	X	X	E	C	E	E	G	X	X	X	X	G
DIOXALANE	X	X	C				E				X	X
DIOXANE	X	X	G	C	E	E	E	X	X	X	X	X
DIPENTENE	X	X	X	X			E	C	X	X	X	E
DIPENTYLAMINE				X				C	X			
DIPROPYLAMINEOLAMINE	G	G	E								G	
DIPROPYLENE GLYCOL	E	E	E	E				E	E	E		E
DISODIUM PHOSPHATE	E	E	E	E				E	E	E		
DIVINYLBENZENE	X	X	X	X				X	X	X		E
DOWTHERMN,A AND E	X	X	X	X			E	X	X	X		E
DRY CLEANING FLUIDS		X	X	X				C	X	X		E
DUCGKIRIOEBAANE			X									
DURD AW-16,31							E					
DURO FR-HD							E					
ETHANOIC ACID				C	E	E	C	C	C			
ETHANOL (GRAIN ALCOHOL)	E	E	E	E	E	E	C	C	E	E	X	C
ETHANOLAMINE	G	G	E	E			E	C	C	C		X
ETHERS	X	X	X	X	E	E	E	F	X	X	G	C
ETHYL ACETATE	X	X	G	C	E	E	E	X	X	X	X	X
ETHYL ACETOACETATE	X	X	G	C			E	X	X	X		X
ETHYL ACETONE				G				X	X			
ETHYL ACRYLATE	X	X	G	C				X	X	X		X
ETHYL ALCOHOL	E	E	E	E	E	E	C	C	E	E		C
ETHYL ALDEHYDE	F		E	E	E	E		X	X			X
ETHYL ALUMINIUM DICHLORIDE	X	X	X					X		X		G
ETHYL BENZENE	X	X	X	X	E	E	E	X	X	X		E
ETHYL BROMIDE	X		X	X	E	E		C	X	X	C	E
ETHYL BUTYL ACETATE	X	X	G					X		X		X
ETHYL BUTYL ALCOHOL	E	E	E							E		G
ETHYL CELLULOSE	G	G	G	C	E	E	E	C	C	G	G	X
ETHYL CHLORIDE	X	X	F	C	E	E	E	E	X	X	C	E
ETHYL DICHLORIDE	X	X	X	X	E	E		X	X	X		G
ETHYL DIISOBUTYLTHIO-CABARMATE	E	E										
ETHYL ETHER	X	X	C	X	E	E	E	X	X	X	G	X
ETHYL FORMATE	X	X	G	C			E	X	C	X		X
ETHYL IODIDE	X	X	X	F	E	E		X	X	X		G
ETHYL OXALATE	X	X	X	E			E	X	X	X	E	E

Chemical Resistance Data

ETHYL PHTHALATE				F	E	E		X	X			
ETHYL SILICATE	F	F	E	E			E	E	E	G		E
ETHYL-N-BUTYL KETONE	X	X	G	G				X	X	X		X
ETHYL-1-BUTANOL	E	E	E	E				E	E	E		E
ETHYLAMINE	F	F	G	E				C	C	F		
ETHYLENE CHLOROHYDRIN	G	G	G	C			E	X	C	G	X	E
ETHYLENE DIAMINE	G	G	E	E	E	E	E	C	E	F	X	X
ETHYLENE DIBROMIDE	X	X	X	C	F	F		X	X	X	X	G
ETHYLENE DICHLORIDE	X	X	X	X	F	F	E	X	X	X	X	G
ETHYLENE GLYCOL MONOETHYL ACETATE		E										
ETHYLENE GLYCOL MONOBUTYL ETHER				E	E	E		F	X			
ETHYLENE GLYCOL MONOETHYL ETHER				C	E	E		C	X			
ETHYLENE GLYCOL	E	E	E	E	E	E	E	E	E	E	E	E
ETHYLENE OXIDE	X	X	C	C	E	E	X	X	X	X	X	X
FATTY ACIDS	X	X	X	X	E	G	E	C	C	X		E
FERRIC BROMADE	E	E	E					E		E		E
FERRIC CHLORIDE	E	E	E	E		E	E	E	C	E	E	E
FERRIC NITRATE	E	E	E	E		E	E	E	E	E	E	E
FERRIC SULFATE	E	E	E	E		E	E	E	E	E		E
FEROUS ACETATE	X	X	G	G				X	X	X		X
FEROUS CHLORIDE	E	E	E	E		E	E	E	E	E	E	E
FEROUS SULFATE	E	E	E	E		E	E	E	E	E	E	E
FLUOBORIC ACID	E	G	E	E	E	E	E	E	E	E		C
FLUORINE	X	X	C	E	G	G	X	X	X		X	G
FLUOSILICIC ACID	E	C	E	E	E	E	E	E	E	E		C
FORMALDEHYDE	G	C	E	C	E	E	E	C	C	C	X	X
FORMALIN	G	G	E	E	E	E		G	G	E		E
FORMIC ACID	G	G	E	E	E	E	E	C	C	F	X	X
FREON SO2								E				
FREON 113	C	G		X			E	E	E	E		G
FREON 12	X	X	X	C	F	G	X	C	C	X	G	G
FREON 22	X	X	F	C	F	E	X	X	E	X	X	X
FUEL A (ASTM)	X	X	X	X				E	C	X		E
FUEL B (ASTM)	X	X	X	X				C	X	X		E
FUEL OIL	X	X	X	X	E	E	E	E	C	C	X	E
FURAN	X	X	X	X	E	E		X	X	X		
FURFURAL	X	X	E	C	E	E	E	X	X	X		X

Chemical Resistance Data

FURFURAN	X	X		X	E	E	E	X	X	X		
FURFURYL ALCOHOL	X	X	F	C	E	E	G	X	X	X	X	G
GALLIC ACID	E	C	G	C	E	E	E	C	C	C	X	C
GALLOTANNIC ACID				E					E			
GAS, COAL				E				X	E			
GAS, HIGH OCTANE				X			E	C	G		C	
GASOLINE	X	X	X	X	E	E	E	E	X	X	G	E
GLACIAL ACRYLIC ACID				X				C	X			
GLUCONIC ACID	X	X	F	E				C	E	G		
GLUCOSE	E	E	E	E	E	E	G	E	C	E	X	E
GLYCERINE	E	E	E	E	E	E	E	E	E	E	X	E
GLYCEROL	E	E	E	E	E	E	E	E	E	E	X	E
GLYCOGENIC ACID				E				F	E			
GLYCOLS	E	E	E	E	E	E	E	E	E	E	X	E
GLYCONIC ACID				E				F	E			
GREASE	X	X	X	X			E	E	F	X	E	E
GREEN SULPHATE LIQUOR	E	E	E	E			E	C	C	E		E
HELIUM	E	E	E	E			G	E	E	E	G	E
HEPTALDEHYDE				C				E	C			
HEPTANAL	X	X	E	C				E	C	X		
HEPTANE	X	X	X	X		E	E	E	C	X	G	E
HEPTANOIC ACID				X				E	C			
HEXADECANOIC ACID				G	E	E		E	X			
HEXALDEHYDE	X	X	G	C	E	E	E	X	C	C	G	X
HEXANE	X	X	X	X	E	E	E	E	C	X	G	E
HEXANOL	E	E	E	C	E	E		C	C	E		G
HEXENE	X	X	X	X			E	C	C	G		E
HEXYL ALCOHOL	E	E	C	C	E	E	E	C	C	C	X	G
HEXYL METHYL KETONE	X	X	G	G				X	C	X		X
HEXYLAMINE	G	G	E	G				F	G	F		
HEXYLENE GLYCOL	E	E	E	F				C	E	E		E
HYDRAULIC & MOTOR OIL	X	X	X	C	E	E	E	C	C	G	E	E
HYDRAZINE	X		E	E			X	C	C	E	X	
HYDROBROMIC ACID	E	X	E	E	E	E	E	X	C	E	X	C
HYDROCHLORIC ACID	E	X	F	C	C	C	E	C	C	X	C	E
HYDROCIANIC ACID	X		E	E			E	C	C	C		
HYDROFLUORIC ACID	X	X	E	C	E	E	E	C	C	E	X	G
HYDROFLUOSILICIC ACID	X		E	E	E	E	C	X	C	E		C
HYDROGEN CHLORIDE ANHYDROUS				E				X	C			

Chemical Resistance Data

HYDROGEN DIOXIDE (10%)	X	X	F	G					F	F			E
HYDROGEN GAS	G	G	E	E	E	E	E	E	E	E	G	E	C
HYDROGEN PEROXIDE OVER 10%	X	X	X	C	C	F	E	X	X	X			E
HYDROGEN PEROXIDE 10%	X	X	F	G	E	E	E	F	F				E
HYDROGEN SULFIDE (WET)	X	X	E	E	E	E	E	X	E	X	X	X	X
HYDROXY BENZENE				C				X	X				
HYDROXYTOLUENE				C				X	C				
IMINODIETHANOL				G				C	G				
IODINE	C	C	C	C	E	E		C	C	E			C
IODINE PENTAFLUORIDE	X	X	X	X				X	X	X	X	X	X
IODOFORM	X	X		E				E	X				
ISO-BUTANAL				G	E	E		X	F				
ISO-BUTYLAMINE				G				X	X				
ISO-BUTYLBROMIDE				X				X	X				
ISO-BUTYLCARBINOL				E				E	E				
ISOCYANATES				G	E	E		C	X				
ISOCTANE	X	X	X	X	E	E	E	E	C	X	E	E	E
ISOPROPYL ACETATE	X	X	G	C	E	E	E	X	X	X	X	X	X
ISOPROPYL ALCOHOL	E	E	E	E	E	E	E	C	C	E	X	E	E
ISOPROPYL ETHER	X	X	X	X	E	E	E	G	X	C	E	X	X
JET FUELS	X	X	X	X	E	E		C	C	X			E
JP-4 OIL	X	X	X	X			E	E	X	X	C	E	E
KEROSENE	X	X	X	X	E	E	E	E	C	X	E	E	E
KETONES	X	X	E	E	E	E	E	C	C	X	X	X	X
LACQUER SOLVENTS	X	X	X	X	E	E	E	X	X	X	X	X	X
LACTIC ACID - COLD	G	G	E	C	G	G	E	C	C	G	E	C	C
LACTIC ACID - HOT	X	X		C	G	G	E	C	C	C			E
LARD	X	X	X	C	E	E	E	E	C	X			C
LAVENDER OIL	X	X	X	X			E	C	X	X	X	X	E
LEAD ACETATE	E	X	G	E	E	E	E	C	C	X	X	X	X
LEAD NITRATE	E	E	E	E				E	E	X			
LEAD SULFATE				E	E	E		E	E	E			E
LIME				E	E	E	G	G	G				
LIME BLEACH	E	G	E										E
LIME SULFUR	X	X	E	E	E	E	E	E	E	E			E
LIMONENE				X				C	X				
LINOLEIC ACID	X	X	X	X			E	C	C	X			G
LINSEED OIL	X	X	C	C	E	E	E	E	C	C	G	E	E
LIQUID PETROLEUM GAS (LPG)	X	X	X	X	E	E	E	E	G	X	E	E	E

Chemical Resistance Data

LUBRICATING OIL	X	X	X	X	E	E	E	C	C	F	E	E
LYE SOLUTIONS	G	G	E	G				C	G		X	G
MEK	X	X	G	E	E	E	E	X	X	X	X	X
MAGNESIUM ACETATE			G	G				X	X			
MAGNESIUM CHLORIDE	E	E	E	E	E	E		E	E	E	E	E
MAGNESIUM HYDRATE	E	G	E	E	E	E		C	C	G		G
MAGNESIUM HYDROXYDE	E	G	E	E	E	E	E	C	C	G	G	G
MAGNESIUM SULFATE	E	E	E	E	E	E	E	E	E	E		E
MALEIC ACID	X	X	X	C	E	E		X	X	X		E
MALEIC ANHYDRIDE	X	X	X	C				X	X	X		X
MALIC ACID	C	C	X	C	C	C	E	E	C	G		C
MANGANOUS SULFATE				E				E	E			
MAPP		G										
MERCURY	E	E	E	E	E	E	E	E	E	E	G	E
MERCURY VAPORS	E	E	E	E				E	G	E		E
MESITYL OXIDE	X	X	G	C			E	X	X	X	X	
METHALLYL ALCOHOL	E	E	E	E				E	E	E		X
METHALLYL CHLORIDE									X			
METHANE CARBOXYLIC ACID				X	E	E	E		G			
METHANOIC ACID				E	E	E		G	E			
METHANOL	E	E	E	E	E	E	E	C	E	E	X	E
METHANOL	E	E	E	E	E	E	E	C	E	E	E	X
METHOXY ETHANOL				E	E	E		C	E			
METHYL ACETATE	X	X	G	C			E	X	C	X	X	X
METHYL ACETOACETATE	X	X	G	C				X	X	X	X	X
METHYL ACETONE	F	X	G	E	E	E		X	X	X		X
METHYL ALLYL CHLORIDE	X	X	F						X	X		F
METHYL AMYL CARBINOL	E	E	E	E				E	G	E		X
METHYL BENZENE	X	X	X	X	F	F		X	X	X		E
METHYL BROMIDE	X	X	X	X	F	F	E	C	X	X		E
METHYL BUTANE				X				E	X			
METHYL BUTYL KETONE	X	X	G	E	E	E		X	X	X	X	X
METHYL CARBITOL	X	X	F	G				F	F	X		
METHYL CELLOSOLVE	X	X	E	C	E	E	E	C	C	X	X	X
METHYL CHLORIDE	X	X	C	C	F	F	E	X	X	X	X	E
METHYL CYANIDE				E				C	E			
METHYL ETHYL KETONE	X	X	G	E	E	E	E	X	X	X	X	X
METHYL HEXANOL	E	E	E	E				E	E	E		F
METHYL METHACRILATE	X	X	X	X	E	E	E	X	X	X		X

Chemical Resistance Data

METHYL NORMAL AMYL KETONE	X	X	G	E				C	E	X		X
METHYL PROPYL ETHER	X	X	G	X				X	X	X		
METHYL SALICYLATE	C	C	G	C	E	E	E	X	X	X		C
METHYL SULFIDE				X				X	X			
METHYL TERTIARY METYL ETHER		X	G				G					X
METHYL -2-BUTANOL	E	E	E							E		F
METHYL-2-BUTANONE	X	X	G	C				X	X	X		X
METHYL -2-HEXANONE	X	X	G							X		X
METHYL-2-PENTANOL				E				G	G			
METHYL -4-ISOPROPYL BENZENE				X				X	X			
METHYLALLYL ACETATE	X	X	G							X		X
METHYL AMYL ALCOHOL	E	E	E	E				G	G	E		X
METHYLCYCLOEXANE	X	X	X	X				X	X	X		G
METHYLENE BROMIDE				X	E	E		C	X			
METHYLENE CHLORIDE	X	X	X	C	F	F	E	X	X	X	X	G
METHYLETHYL KETONE				E				X	X			
METHYL HEXYL KETONE	X	X	G	G	E			X	C	X		X
METHYL ISOBUTYL CARBINOL	G	G	E	C				X	X	C		C
METHYLISOBUTYL KETONE	X	X	C	C	E	E	E	X	X	X	X	X
METHYLISOPROPYL KETONE	X	X	G	C			E	X	X	X	X	X
METHYLPROPYL CARBINOL	G	G	E					E		G		F
METHYLPROPYL KETONE	X	X	G	G	E	E		X	X	X		X
MIL-A-6091	E	E	E	E				C	E	E	X	E
MIL-C-4339	X	X	X	X				E	X	X	X	E
MIL-C-7024	X	X	X	X				E	C	X	G	E
MIL-E-9500	E	E	E	E				E	E	E	X	E
MIL-F-16884	X	X	X	X				E	C	C	C	E
MIL-F-17111	X	X	X	X				E	C	X	C	E
MIL-F-25558 (RJ-1)				X				E	C			E
MIL-G-10924	X	X	X	X				E	C	G	G	E
MIL-G-25013	X	X	X	E				E	C	G	C	E
MIL-G-25537				X				E	C			E
MIL-G-3545	X	X	X	X				E	C	C	C	E
MIL-G-5572	X	X	X	X				E	X	X	G	E
MIL-G-7711	X	X	X	X				E	X	X	E	E
MIL-H-05606 (HFA)				C				E	C			E
MIL-H-13910	G	E	G	E				E	E	G	X	E
MIL-H-19457	X	X	E	C				X	X	X	X	X
MIL-H-22251		G	E	E				C	C	G		C

Chemical Resistance Data

MIL-H-27601				X				G	C			E
MIL-H-5606 (J43)				C			E	E	C			E
MIL-H-6083	X	X	X	X			E	E	E	G	G	E
MIL-H-8446 (MLO-8515)	X	X	X	X				G	E		X	E
MIL-J-5161	X	X	X	X				C	X	X	C	E
MIL-J-5624 (JP-3, JP-4, JP-5)	X	X	X	X				E	X	X	C	E
MIL-L-15016	X	X	X								E	E
MIL-L-17331	X	X	X								E	E
MIL-L-2104	X	X	X	X			E	E	C	C	E	E
MIL-L-21260	X	X	X	X				E	C	G	E	E
MIL-L-23699	X	X	X	X				C	C	C	C	E
MIL-L-25681				E				C	C			E
MIL-L-3150	X	X	X	X				E	C	G	G	E
MIL-L-4343	X	X	C							G	E	E
MIL-L-6082	X	X	X							G	E	E
MIL-L-6085	X	X	X	X				C	X	X	C	E
MIL-L-7808	X	X	X	X			E	G	X	X	X	E
MIL-L-7870	X	X	X	X				E	C	X	X	E
MIL-L-9000	X	X	X	X				E	C	C	C	E
MIL-L-9236	X	X	X	X				C	X	X	X	E
MIL-P-27402				E				C	C			C
MIL-R-25567 (RP-1)								E				
MIL-S-3136 TYPE 1 FUEL	X	X	X	X				E	C	C	G	E
MIL-S-3136 TYPE 2 FUEL	X	X	X	X				C	X	X	C	E
MIL-S-3136 TYPE 3 FUEL	X	X	X	X				G	X	X	C	E
MIL-S-3136 TYPE 4 OIL, LOWSWELL	X	X	X	X				E	X	E	E	E
MIL-S-3136 TYPE 5 OIL, MEDSWELL	X	X	X	X				E	G	G	G	E
MIL-S-3136 TYPE 6 OIL, HI SWELL	X	X	X	X				E	X	X	G	E
MIL-S-81087				E				E	E			E
MINERAL OIL	X	X	X	X	E	E	E	E	C	F	E	E
MINERAL SPIRITS	X	X	X	X				C	C	X		E
MOBILE HF A				X			E	E	C			
MOLTEN SULFUR	X	X	G							F		G
MONO-CHLOROACETIC ACID	G	X	F	G	E	E		X	C	X		C
MONOBUTYL ETHER	X	X	F	C				G	C	X		X
MONOCHLOROBENZENE	X	X	X	X	F	F	E	X	X	X	X	E
MONOCHLORODIFLUOROMETHANE (chlorodifluoromethane)	X	X	F	C	E	E		X	C	X		X
MONOETHANOL AMINE	E	X	E	C				G	G	X	X	X

Chemical Resistance Data

MONOETHYL AMINE	F	F	G	E			E	C	C	F		C
MORPHOLINE				C			E	X	X			
MOTOR OIL, 40W				X				E	C			
MTBE		X	G				G	X	X			X
MURIATIC ACID	E	X	F	E				X	C	X		E
N-BUTANAL				C	E	E		X	X			
N-BUTYLAMINE	X	X	X	C				C	X	X	X	X
N-BUTYLBENZENE	X	X	X	X				X	X	X		E
N-BUTYLBROMIDE	X	X	X	X				X	X	X		G
N-BUTYLBUTYRATE	X	X	F	E				X	X	X		X
N-BUTYLCARBINOL				E	E	E		E	E			
N-NONYL ALCOHOL				E				E	E			
N-OCTANE	X	X	X	X	E	E		C	G	X	X	E
N-SERV (75% XYLENE)				X			E	X	X			E
NA-K							X					
NAPHTHA	X	X	X	X	E	E	E	C	X		E	E
NAPHTHALENE	X	X	F	X	E	E	E	X	X	X	C	C
NAPHTHENIC ACID	X	X		X			E	C	X	X		E
NATURAL GAS	X	X	X	X	E	E	E	E	E	F	C	C
NEOHEXANE	X	X	X	X				E	G	X		E
NEON GAS	E	E	E	E			E	E	E	E	E	E
NEU-TRI	X	X	X							X		E
NICKEL ACETATE	E	X	E	E			E	C	G	X	X	X
NICKEL CHLORIDE	E	E	E	E	E	E	E	E	C	E	C	E
NICKEL NITRATE	E	E	E	E	E	E		E	E	E		E
NICKEL SULFATE	E	E	E	E	E	E	E	E	E	E		E
NIETYLENE	E											
NITRIC ACID, CONC (16N)	X	X	C	X			E	X	X	G	X	C
NITRIC ACID, RED FUMING	X	X	G	X	X	X	E	X	X	X	X	X
NITRIC ACID, 10%	X	X	G	E	E	E	E	X	G	X	X	X
NITRIC ACID, 13N							E	X	X			
NITRIC ACID, 13N +5%							E	X	X			
NITRIC ACID, 20%	X	X	G	E	E	E	E	X	X	X		C
NITRIC ACID, 30%	X	X	F	F	G	G	G	X	X	X	C	C
NITRIC ACID, 30% - 70%	X	X	F	X	F	F		X	X	F		C
NITRILOTRIETHANOL				E	E	E		F	C			
NITROBENZENE	X	X	F	C	E	E	E	X	X	X	X	G
NITROETHANE	G	G	G	C			E	X	C	G	X	X
NITROGEN	E	E	E	E	E	E	E	E	E	E	E	E

Chemical Resistance Data

NITROMETHANE	G	C	G	C			E	X	C	C	X	X
NITROUS OXIDE GAS				E			E	E	G			
NONANOIC ACID					E	E						
NUTO H							E					
NYVAC LIGHT							E					
OCTANOL	G	G	E							G		G
OCTYL ACETATE	X	X	G	G	E	E		C	C	X		X
OCTYL ALCOHOL	E	E	E	C			E	C	C	E	X	E
OCTYL ALDEHYDE	X	X	E		E	E				X		X
OCTYL AMINE	G	G	E	G				F	G	F		C
OCTYL CARBINOL	E	E	E	E				E	E	E		G
OCTYLENE GLYCOL	E	E	E	E				E	E	E		E
OIL-PETROLEUM	X	X	X		G	G				F		E
OLEIC ACID	X	X	G	X	E	E	E	G	F	X	G	G
OLEUM (FUMING SULFURIC ACID)	X	X	X	X	X	X	E	X	X	X	C	X
OLIVE OIL	X	X	E	G			E	E	G	F	E	E
ORTHO-DICHLOROBENZENE	X	X	X	X			G	X	X	X	X	E
ORTHO-DICHLOROBENZOL	X	X	X	X				X	X	X		G
ORTHOXYLENE	X	X	X	X				X	X	X		E
OXALIC ACID	X	X	E	E	E	E	E	G	G	X	E	C
OZONE	X	X	G	E	E	E	E	X	F	G	G	C
P-CYMENE	X	X	X	X			E	X	X	X	X	E
PAINT THINNER	X	X	X	X			E	X	X	X	X	G
PALMITIC ACID	X	X	E	C	E	E	E	E	G	C	E	C
PAPERMAKERS ALUM	E	E	E									E
PARA-DICHLOROBENZENE	X	X	X	X				X	X	X	X	E
PARAFFIN WAX	X	X	X	X				E	G	X		E
PARALDEHYDE	F		E	E				C	G			X
PARAXYLENE	X	X	X	X				X	X	X		E
PCB							E					E
PELARGONIC ALCOHOL	X	X	E	E	E	E		E	E	X		
PENTACHLOROETHANE	X	X	X					X	X	X		E
PENTAMETHYLENE				X				G	C			
PENTANE	X	X	X	X	E	E		E	E	F	X	E
PENTANOL					E	E						
PENTANONE	X	X	G	G				X	X	X		X
PENTASOL	E	E	E	G	E	E		C	G	E		E
PENTYL ACETATE				C	E	E		X	X			
PENTYL ALCOHOL				E	E	E		C	C			

Chemical Resistance Data

PENTYL BROMIDE				C				X	X			
PENTYL CHLORIDE				X	E	E		X	X			
PENTYL ETHER				X				C	X			
PENTYLAMINE				X				F	F			
PERCHLORIC ACID	X	X	G	G	E	E	E	X	E	G	X	E
PERCHLOROETHYLENE	X	X	X	X	E	E	E	F	X	X	X	E
PERCHLOROMETHANE				X				X	X			
PETROLEUM CRUDE	X	X	X	X	E	E		G	G	X	E	E
PETROLEUM ETHER	X	X	X	X			E	E	X	X		E
PETROLEUM OILS	X	X	X	X	E	E	E	X	G	X		E
PHENBO											X	
PHENOL	X	X	E	X	E	E	E	X	X	X	X	E
PHENOLSULFONIC ACID	X	X	F	E				C	C	X		X
PHENYLAMINE				C	E	E		X	X			
PHENYCHLORIDE	X	X	X	X	E	E		X	X	X		E
PHENYLETHYLENE				X				X	X			
PHENYLMETHANE				X	E	E		X	X	X		
PHENYLMETHANOL				C				X	C			
PHENYLMETHYL ACETATE				E				C	E			
PHOSPHATE ESTERS				E			E	X	X		X	
PHOSPHORIC ACID 10%	E	E	E	E	E	E	E	E	E	E		E
PHOSFORIC ACID 10% - 85%	G	X	G	E	E	E	E	G	G	E	X	E
PHOSPHORUS TRICHLORIDE	X	X	E	E	E	E	E	X	X	X		E
PICRIC ACID, H2O SOLUTION	G	G		E			E	E	E	G	X	E
PINE OIL	X	X	X	X	E	E	E	E	X	X		E
PINENE	X	X	X	X			E	C	C	X	G	E
POLY CHLORINATED BIPHENOL							E					E
POLYETHYLENE GLYCOL E-400	E	E	E	E				C	G	E		E
POLYOL ESTER	X		X	X				G	X			G
POLYPROPYLENE GLYCOL	E	E	E		E	E		E	E	E		E
POTASSIUM ACETATE	X	X	G	E			E	C	E	X	X	X
POTASSIUM BISULFATE	E	E	E	E				E	E	E		E
POTASSIUM BISULFITE	E	E	E	E				E	E	E		E
POTASSIUM CARBONATE	E	E	E	E	E	E		E	E	E		E
POTASSIUM CHLORIDE	E	E	E	E	E	E	E	E	E	E	E	E
POTASSIUM CHROMATE			E	E				G	E	F		
POTASSIUM CYANIDE	E	E	E	E	E	E	E	E	E	E	E	E
POTASSIUM DICHROMATE	G	G	E	E	E	E	E	E	E	F	G	E
POTASSIUM HYDRATE	E	G	E		E	E				G		F

Chemical Resistance Data

POTASSIUM HYDROXYDE	E	G	E	E	E	E	E	G	G	G	C	X
POTASSIUM NITRATE	E	E	E	E	E	E	E	E	E	E	E	E
POTASSIUM PERMANGANATE, 5%				E	E	E		F	E			
POTASSIUM SILICATE	E	E	E	E				E	E	E		E
POTASSIUM SULFATE	E	E	E	E	E	E	E	E	E	E	G	E
POTASSIUM SULFIDE				E				C	E			
POTASSIUM SULFITE	E	E	E	E	E	E		E	E	E		E
PRESTONE ANTIFREEZE				E				E	E			E
PRODUCER GAS	X	E	X	X				E	E	G	G	E
PROPANE	X	X	X	X	E	E	E	E	E	G	E	E
PROPANEDIOL	E	E	E	E	E	E		E	G	E		E
PROPANETRIOL				E	E	E		E	E			
PROPANOL	E	E	E	E	E	E		E	E	E		F
PROPANONE				E	E	E		X	X			
PROPENENITRILE					E	E						
PROPENYL ALCOHOL				E	E	E		E	E			
PROPENYLANISOLE					E	E		X				
PROPIONIC ACID				E				C	C			
PROPIONITRILE				C				E	C			E
PROPYL ACETATE	X	X	G	C	E	E		X	X	X	X	X
PROPYL ALCOHOL	E	E	E	E	E	E		E	E	E	C	E
PROPYL ALDEHYDE	F		E	G				X	X			X
PROPYL BENZENE									X			
PROPYL CHLORIDE	X	X	F	F				X	F	X		G
PROPYL NITRATE	X	X	G	C				X	X	X		X
PROPYLENE	X	X	X	X				X	X	X	X	E
PROPYLENE DIAMINE	G	G	E								F	
PROPYLENE GLYCOL	E	E	E	E	E	E	E	E	E	E	E	E
PYDRAUL, 'E' SERIES	X	X		C				E	X	X	X	X
PYDRAULIC 'C'				X				E	X	X		E
QUINTOLUBRIC 822 SERIES	X		X									G
RED OIL	X	X	X	F	E	E	E	E	F	G	G	E
REFRIGERANT 11					E	E						G
REFRIGERANT 12					E	E						G
REFRIGERANT 22					E	E						G
RESORCINOL				G				E	C	A		X
SAE NO. 10 OIL				X				E	E	C	X	E
SAL AMMONIAC	E	E	E	E	E	E		G	E	E	E	E
SEA WATER	E	E	E	E	E	E	E	E	E	E	E	E

Chemical Resistance Data

SEWAGE	F	F	F	G	E	E	E	E	C	E	X	C
SILICATE ESTERS	X	X	X	X				E	G	E	E	E
SILICATE OF SODA	E	E	E	E				E	E	E		E
SILICONE GREASE	E	E	E	E	E	E	E	E	E	E		E
SILICONE OIL	E	E	E	E	E	E		E	E	E		E
SILVER NITRATE	E	E	E	E	E	E	E	C	E	E	E	E
SKYDROL 500 TYPE 2				E			E	X	X	X		X
SKYDROL 500B			G	E			E	X	X	X	C	X
SKYDROL 500C			G				E		X	X		X
SKYDROL 7000 TYPE 2				E			E	X	X			G
SOAP SOLUTIONS	G	E	E	E	E	E	E	E	G	E	C	E
SODA ASH	E	E	E	E	E	E	E	E	E	E		E
SODA LIME	E	G	E	E				G	G	G		F
SODA NITER	E	E	E	E	E	E		E	G	E		E
SODIUM ACETATE	X	X	G	E	E	E	E	G	C	X	E	X
SODIUM ALUMINATE	E	E	E	E				E	E	E		E
SODIUM BICARBONATE	E	E	E	E	E	E	E	E	E	E		E
SODIUM BISULFATE	F	F	F	E	E	E	E	E	E	E		C
SODIUM BISULFITE	E	E	E	E	E	E	E	E	E	E		E
SODIUM BORATE	E	E	E	E	E	E	E	E	E	E		E
SODIUM CARBONATE	E	E	E	E	E	E		E	E	E		E
SODIUM CHLORIDE	E	E	E	E	E	E	E	E	E	E	E	E
SODIUM CYANIDE	E	E	E	E	E	E	E	E	E	E		C
SODIUM DICHROMATE	C	C	E	E				E	E			C
SODIUM HYDRATE	E	G	E	E	E	E		X	G	G		F
SODIUM HYDROCHLORITE	X	X	G									G
SODIUM HYDROXIDE (CAUSTIC SODA)	E	G	E	E	E	E	E	X	G	G	G	G
SODIUM HYPOCHLORITE	X	X	G	E	E	E	E	C	C	F	X	E
SODIUM METAPHOSPHATE	E	E	E	E	E	E	E	E	E	G		E
SODIUM NITRATE	E	E	E	E	E	E	E	C	G	E	X	C
SODIUM PERBORATE	G	G	E	E			E	C	G	G		E
SODIUM PEROXIDE	G	G	E	E	E	E	E	C	G	G	X	E
SODIUM PHOSPHATE	E	E	E	E	E	E	G	E	G	E	E	E
SODIUM SILICATE	E	E	E	E	E	E	E	E	E	E		E
SODIUM SULFATE	E	E	E	E	E	E	E	E	E	E		E
SODIUM SULFIDE	E	E	E	E	E	E		E	E	E	E	E
SODIUM SULFITE	E	E	E	E	E	E		E	E	E	E	E
SODIUM THIOSULFATE	E	E	E	E	E	E	E	C	E	E	E	E
SOYBEAN OIL	X	X	E	C			E	E	E	G	G	E

Chemical Resistance Data

STANNIC CHLORIDE	E	E	E	E	E	E	E	E	E	G	E	
STANNIC SULFIDE	E	E	E	E				E	E	E		
STANNOUS CHLORIDE	E	E	E	G	E	E	E	E	E	E		C
STANNOUS SULFIDE	E	E	E	E				E	E	E		
STEAM, BELOW 350 DEG F	X	X	G	E	X	X	E	X	X	X	X	X
STEARIC ACID	X	X	G	G	E	E	E	G	G	X	E	C
STODDARD SOLVENT	X	X	X	X	E	E	E	E	G	X	E	E
STYRENE	X	X	X	X	F	F	E	X	X	X	E	G
SULFAMIC ACID	G	G	E	E				C	G	G		C
SULFUR	X	X	F	E	E	E	E	X	E	F		G
SULFUR CHLORIDE	X	X	X	E			E	C	E	G		E
SULFUR DIOXIDE	C	C	G	E		G	E	X	C	G		C
SULFUR TRIOXIDE, DRY	G	G	G	E	X	X	E	X	X	X		E
SULFURIC ACID 60% (200 °F)				E	X	X		G	X			
SULFURIC ACID, CONC.	X	X	X	X	F	F	C	X	X	E	X	E
SULFURIC ACID, FUMING	X	X	X	X	X	X	E	X	X	X		X
SULFURIC ACID, 25%	G	X	E	E	E	E	E	C	C	X	X	F
SULFURIC ACID, 25%-50%	G	X	E	E	E	E	E	C	X	X	X	G
SULFURIC ACID, 50%-96%	X	X	X	X	G	G	E	X	X	G	X	E
SULFUROUS ACID, 10%	E	G	E	E	E	E	E	E	C	E		C
SULFUROUS ACID, 10%-75%	E	X	E	E	E	E	E	F	C	E		C
SUTAN							E					F
T-BUTYL AMINE				C				C	X	X		
TALL OIL	X	X	X	X				E	C	X		E
TALLOW	X	X	X	E	E	E		E	G	X		C
TANNIC ACID	E	F	E	E	E	E	E	E	E	E	C	C
TAR	X	X	X	X	X	F	E	X	X	X		E
TAR BITUMINOUS	X	X	X	X			E	G	C	X		E
TARTARIC ACID	C	X	E	G	E	E	E	E	E	E	C	C
TERTIARY BUTYL ALCOHOL	E	E	E	C			E	C	C	E	X	E
TERPINOL	X	X	C				E				G	E
TERTIARY BUTYL AMINE										X		
TERTIARY BUTYL MERCAPTAN	X	X	X	X			E	X	X	X		E
TEST ENTRY		X	G								X	
TETRACHLOROBENZENE	X	X	X	X				X	X	X		G
TETRACHLOROETHANE	X	X	X	X	F	F		X	X	X		E
TETRACHLOROETHYLENE	X	X	X	X	F	F		C	X	X	X	E
TETRACHLOROMETHANE	X	X	X		E	E				X		E
TETRACHLORONAPHTHALENE	X	X	X	X	E	E		X	X	X		G

Chemical Resistance Data

TETRAETHYLENE GLYCOL	E	E	E	E				E	E	E		E
TETRAETHYLORTHOSILICATE				E				E	E			
TETRAHYDROFURAN (THF)	X	X	X	X				X	X	X	X	X
TIN CHLORIDE	E	E	E	E	E	E		E	C	E		
TITANIUM TETRACHLORIDE	X	X	X	X				C	C	X	X	E
TOLUENE	X	X	E	X	E	E	E	X	X	X	X	E
TOLUIDINE				X	E	F		C	X			
TOLUOL				X	E	E		X	X	X		
TRANSFORMER OIL	X	X	X	X	E	E	E	C	C	C	E	E
TRANSMISSION 'A' OIL	X	X	X	X			E	E	C	X	E	E
TRI(2-HYDROXYETHYL) AMINE				E				G	C			
TRIBUTYL PHOSPHATE	X	X	E	G			E	F		X	X	X
TRIBUTYLAMINE	G	G	E					G		F		
TRICHLOROACETIC ACID	C	G	G	C			E	C	C	X	X	C
TRICHLOROBENZENE	X	X	X	X	F	F		C	X	X		G
TRICHLOROETHANE	X	X	X	X			E	X	X	X	X	E
TRICHLOROETHYLENE	X	X	X	X	F	F	X	X	X	X	X	E
TRICHLOROMETHANE				X	F	F		X	X			
TRICHLOROTOLUENE				E				X	X			
TRICRESYL PHOSPHATE	X	X	E	E			E	X	X	X	X	G
TRIETHANOLAMINE	E	X	E	E	E	E	E	C	C	G	X	X
TRIETHYLAMINE	G	G	E	E				E	G	F		
TRIETHYLENE GLYCOL	E	E	E	E	E	E		C	E	E		E
TRIHYDROXYBENZOIC ACID				C				C	C			
TRIMETHYL PENTANE (MIXED)				X				E	G			
TRIMETHYLAMINE				C			E	C	E			
TRISODIUM PHOSPHATE	E	E	E	E	E	E	E	E	E	E	E	E
TRITOYL PHOSPHATE				E				X	C			
TUNG OIL				X	E	E		E	C			
TUNG OIL (CHINA OIL)	X	X	C	X	E	E	E	E	C	C	C	E
TURPENTINE	X	X	X	X	E	E	E	E	X	X	E	E
UNSYMMETRICAL DIMETHYL HYDRAZINE(UDMH)	E	E		E				C	C	E		X
UNDECYL ALCOHOL				E				E	E			
UREA			E	E	E	E	E	G	G		E	
URETHANE FORMULATIONS							E					
URIC ACID				E				C	E			
VARNISH	X	X	X	X	E	E	E	G	X	X	C	E
VEGETABLE OILS	X	X	E	F	E	E	E	E	C	X		E

Chemical Resistance Data

VERSILUBE F44				E			E	E	E			
VERSILUBE F55				X			E	E	E			
VINEGAR	E	F	E	E	E	E	E	G	G	F	X	C
VINYL ACETATE	X	X	G	G	E	E		C	C	X		X
VINYL BENZENE	X	X	X	X	F	F		C	X	X		G
VINYL CHLORIDE	X	X	X	C	E	E	E	X	X	X		E
VINYL CYANIDE				X	E	E		X	X			
VINYL ETHER	X	X	G					G		X		
VINYL TOLUENE	X	X	X	X				X	X	X		E
VINYL TRICHLORIDE	X	X	X	X				X	X	X		E
VITAL, 4300,5310							E					
VM & NAPHTHA	X	X	X	X				G	F	X		E
WATER	E	F	E	E	E	E	E	E	G	E	E	E
WATER, BOILING				E				G	G			
WATER, SODA				E	E	E	E	E	E			
WEMCO C	X	X	X	X				E	C	X	E	E
WHISKEY	E	E	E	E	E	E	E	E	E	E	X	X
WHITE OIL	X	X	X	X	E	E	E	E	G	X	E	X
WHITE PINE OIL	X	X	X	X				C	X	X		E
WINES	E	E	E	E	E	E	E	E	E	E	X	X
WOOD ALCOHOL	E	E	E	E	E	E		E	E	E	X	X
WOOD OIL	X	X	X	X	E	E	E	E	C	C	C	E
XENON	E	E	E	E				E	E	E	E	E
XYLENE, XYLON	X	X	X	X	F	F	E	X	X	X	C	E
XYLIDINE	C	C	X	G			E	C	X	X	X	X
ZEOLITES	E	E	E	E				E	E	E		E
ZINC ACETATE	E	X	E	E			E	G	C	E	X	X
ZINC CARBONATE	E	E	E	E				E	E	E		E
ZINC CHLORIDE	E	E	E	E	E	E	E	E	E	E	E	E
ZINC CHROMATE			E	E				C	E	F		
ZINC SULFATE	E	E	E	E	E	E	E	E	E	E		E
1 UNDECANOL	E	E	E	E	E	G		E	E	E		G
1-AMINO-2-PROPANOL								C				
1-AMINOBUTANE				C				C	X			
1-AMINOPENTANE				X				F	C			
1-BROMO-2-METHYL PROPANE				X				X	X			
1-BROMO-3-METHYL BUTANE				X				X	X			
1-BROMOBUTANE				X				X	X			
1-CHLORO-2-METHYL PROPANE				X				X	X			

Chemical Resistance Data

1-CHLORO-3-METHYL BUTANE				X				X	X			
1-DECANOL	E	E	E	X	E	E		E	X	E		G
1-HENDECANOL				E				E	E			
1,4-DIOXANE	X	X	G	C	E			X	X	X		X
2(2ETHOXYETHOXY) ETHANOL				C				C	C			
2(2ETHOXYETHOXY) ETHYL ACETATE				X				X	X			
2-AMINOETHANOL	G	G	E	E				C	C	G		
2-CHLOROPHENOL	X	X	X	E				B	E	X	X	E
2-CHLOROPROPANE	X	X		E				E	E	X		X
2-ETHOXYETHANOL				C	E	E		C	X			
2-ETHOXYETHYL ACETATE				B	E	E		X	X			
2-ETHYL(BUTYRALDEHYDE)	X	X	E					X		X		X
2-ETHYL-1-HEXANOL	E	E	E	C	E	E		C	C	E	X	G
2-ETHYLHEXANOIC ACID								F				
2-OCTANONE				E				E	E			
3-BROMOPROPENE				X				X	X			
3-CHLOROPROPENE				X	E	G		C	X			
3-COAL OIL				X				E	G			
4-HYDROXY-4-METHYL-2-PENTANONE				E	E	E		X	C			

The following data is based on tests and believed to be reliable; however, we emphasise that the tabulation should be used as a guide only, since it does not take into consideration all variables such as elevated temperatures, fluid contamination, concentration, etc. that may be encountered in actual use. All critical applications should be tested.

Note : All data based on 20 °C (68 °F) unless otherwise noted.

Key:

Blank = No Data

G = Good

E = Excellent

F = Fair

C = Conditional

X = Unsatisfactory