CHEMICAL RESISTANCE GUIDE @ 20°C/70°F

RATING DEFINITIONS A = CONTINUOUS SERVICE B = INTERMITTENT USE I = INSUFFICIENT DATA X = DO NOT USE

CHEMICAL RESISTANCE GUIDE	HOSE MATERIAL													COUPLING MATERIAL						GASKET MATERIAL			
	NITIRLE	EPDM	SBR	VITON	NATURAL	HYPALON	BUTYL	PVC	TPU	TPR	UHWMPE	XLPE	TEFLON	304SS	316SS	ALUMINUM	BRASS	NYLON	POLYPROPYLENE	TEFLON	VITON	BUNA	EPDM
Acetaldehyde	X	A	X	X	X	X	B	X	X	X	B	A	A	A	A	B	X	A	A	A	X	X	A
Acetic Acid, Conc.	X	A	I	X	B	X	A	B	X	I	A	A	A	I	A	B	X	I	I	A	X	X	A
Acetic Acid, Dilute 10	X	A	I	X	A	X	A	A	B	I	B	A	A	I	A	I	X	I	I	A	X	X	A
Acetic Acid, Glacial	X	A	X	X	X	X	B	B	X	X	A	A	A	A	A	B	X	X	A	A	X	X	A
Acetic Aldehyde	X	A	I	X	X	X	B	X	I	X	A	A	A	I	A	B	X	I	I	A	X	X	A
Acetic Anhydride	X	A	X	X	X	B	A	X	X	X	B	A	A	A	A	B	X	X	A	A	X	X	A
Acetic Ester	X	A	I	X	X	X	B	X	X	B	B	A	A	I	A	A	A	I	I	A	X	X	A
Acetic Ether	X	A	I	X	X	X	B	X	X	I	B	A	A	I	A	A	A	I	I	A	X	X	A
Acetic Oxide	X	A	I	X	X	B	A	I	I	I	B	A	A	I	A	B	X	I	I	A	X	X	A
Acetone	X	A	A	X	B	X	A	X	X	B	A	A	A	A	A	A	I	A	A	A	X	X	A
Acetone Cyanohydrin	X	A	I	X	X	X	A	X	X	I	B	A	A	I	I	I	I	I	I	A	X	X	A
Acetyl Acetone	X	I	X	X	X	X	B	X	X	I	B	A	A	I	I	B	I	I	I	A	X	X	I
Acetyl Chloride	X	B	X	B	X	X	X	I	X	X	B	B	A	B	B	X	A	I	I	A	B	X	B
Acetyl Oxide	X	A	I	X	X	B	A	I	I	I	B	A	A	I	A	B	X	I	I	A	X	X	A
Acetylene (dry)	A	A	I	A	A	A	A	I	I	I	A	A	A	I	A	I	I	I	I	A	A	A	A
Acetylene Dichloride	X	I	I	A	X	X	X	X	I	X	B	A	A	I	I	A	X	I	I	A	A	X	I
Acetylene Tetrachloride	X	I	I	A	X	X	X	X	I	I	B	A	A	I	A	X	X	I	I	A	A	X	I
Acrolein	B	I	I	A	B	B	A	I	I	I	B	A	A	I	I	I	I	I	I	A	A	B	I
Acrylic Acid	X	X	I	A	X	X	X	I	I	I	B	A	A	I	A	I	I	I	I	A	A	X	X
Acrylonitrile	X	X	X	X	X	X	X	A	A	I	B	B	A	A	A	X	I	I	A	A	X	X	X
Alk-Tri	X	I	I	A	X	X	X	I	I	I	I	A	A	I	A	I	I	I	I	A	A	X	I
Allyl Alcohol	A	A	A	B	A	A	A	X	X	X	A	A	A	I	A	I	A	I	I	A	B	A	A
Allyl Bromide	X	I	X	B	X	X	X	X	X	I	B	B	A	I	I	I	I	I	I	A	B	X	I
Allyl Chloride	X	X	X	B	X	X	X	X	X	I	B	B	A	I	A	X	X	I	I	A	B	X	X
Aluminum	A	A	I	A	A	A	A	A	A	B	A	A	A	I	A	I	X	I	I	A	A	A	A
Aluminum Acetate	X	A	B	X	X	A	A	I	I	I	A	A	A	I	A	I	X	I	I	A	X	X	A
Aluminum Chloride	A	A	A	A	A	A	A	A	A	B	A	A	A	X	I	I	X	X	A	A	A	A	A
Aluminum Formate	X	I	I	X	X	X	B	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Aluminum Hydroxide	B	A	A	X	A	B	A	A	A	I	A	A	A	A	A	I	X	A	A	A	X	B	A
Aluminum Sulfate	A	A	A	A	A	A	A	A	A	B	A	A	A	B	A	X	X	A	A	A	A	A	A
Aminoethanol	B	I	I	I	B	B	A	I	I	I	A	A	A	I	A	B	I	I	I	A	I	B	I
Aminoethylethanolamine	B	I	I	I	B	B	A	I	I	I	A	A	A	I	I	I	I	I	I	A	I	B	I
Ammonia Cupric Sulfate	A	A	I	A	X	A	A	X	I	I	A	A	A	I	I	I	I	I	I	A	A	A	A
Ammonium Chloride	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A	X	X	A	A	A	A	A	A
Ammonium Hydroxide	X	X	A	X	A	B	A	B	B	B	A	A	A	A	A	X	I	A	A	A	X	X	X
Ammonium Nitrate											N/R												
Ammonium Phosphate	A	A	A	A	A	A	A	I	I	B	A	A	A	I	A	X	X	A	A	A	A	A	A
Ammonium Sulfate	X	A	A	A	A	A	A	A	A	B	A	A	A	X	A	X	X	A	A	A	A	X	A
Ammonium Sulfide	X	A	A	A	A	A	A	A	A	I	A	A	A	I	A	X	X	I	I	A	A	X	A
Ammonium Sulfite	A	A	A	A	A	A	A	A	A	I	A	A	A	I	A	X	I	I	I	A	A	A	A
Ammonium Thiosulfate	A	A	A	A	A	A	A	A	A	I	A	A	A	I	A	B	X	I	I	A	A	A	A
Amyl Acetate	X	B	X	X	X	B	A	X	X	X	A	A	A	I	A	A	I	I	I	A	X	X	B
Amyl Alcohol	A	A	A	B	A	A	A	B	B	X	A	A	A	A	A	I	A	A	A	A	B	A	A
Amyl Alcohol	A	A	A	B	A	A	A	B	B	X	A	A	A	A	A	I	A	A	A	A	B	A	A
Amyl Chloride	X	X	X	A	X	X	X	X	X	X	A	A	A	B	A	X	I	B	X	A	A	X	X
Amyl Oleate	B	I	X	I	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	I	B	I
Amyl Phenol	X	I	X	A	X	X	X	X	I	I	A	A	A	I	I	I	I	I	I	A	A	X	I
Amyl Phthalate	X	I	I	X	X	X	A	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Amylamine	X	X	A	X	X	X	B	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	X
Anethole	X	I	X	B	X	X	X	I	I	I	X	X	A	I	I	I	I	I	I	A	B	X	I
Anhydrous Ammonia											N/R			B	A	A	X	A	X				
Aniline	X	A	X	A	X	X	A	I	I	I	A	A	A	A	A	B	X	X	X	A	A	X	A
Animal Grease	A	X	X	A	X	X	X	A	A	I	A	A	A	I	A	A	I	I	I	A	A	A	X
Animal Oils	A	X	X	A	X	X	B	A	A	X	A	A	A	I	A	A	I	I	I	A	A	A	X
Antimony Pentachloride	X	X	X	I	X	X	X	I	I	I	A	B	A	I	I	I	I	I	I	A	I	X	X
Aqua Ammonia	B	B	I	A	A	B	A	B	I	I	A	A	A	I	A	X	I	I	I	A	A	B	B
Aromatic Spirits	X	X	I	A	X	X	X	I	I	I	A	A	A	I	A	I	I	I	I	A	A	X	X
Aromatic Tar	X	X	I	A	X	X	X	X	X	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Arquads	A	A	I	A	A	A	A	I	I	I	A	A	A	I	I	I	I	I	I	A	A	A	A
Arsenic Acid	X	A	A	I	A	A	A	A	A	I	A	A	A	A	A	X	X	X	A	A	I	X	A
Arsenic Chloride	X	X	X	X	X	X	X	A	A	I	I	X	A	I	I	I	I	I	I	A	X	X	X

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Arsenic Trichloride	X	X	X	X	X	X	X	A	A	I	I	X	A	I	X	I	I	I	I	A	X	X	X
Asphalt											CALL												
ASTM #1 Oil	A	X	X	A	X	B	X	A	A	X	A	A	A	I	A	A	I	I	I	A	A	A	X
ASTM #2 Oil	A	X	X	A	X	X	X	A	A	X	A	A	A	I	A	A	A	I	I	A	A	A	X
ASTM #3 Oil	A	X	X	A	X	X	X	A	A	X	A	A	A	I	A	A	A	I	I	A	A	A	X
Barium Carbonate	A	A	A	A	A	A	A	A	A	I	A	A	A	A	A	X	I	A	A	A	A	A	A
Barium Chloride	A	A	A	A	A	A	A	A	A	I	A	A	A	X	A	X	I	A	A	A	A	A	A
Barium Hydroxide	A	A	A	B	A	A	A	A	A	I	A	A	A	B	A	X	X	A	A	A	B	A	A
Barium Sulfate	A	A	A	A	A	A	A	A	A	I	A	A	A	A	B	A	X	A	A	A	A	A	A
Barium Sulfide	A	A	A	A	A	A	A	A	A	I	A	A	A	I	A	X	X	A	A	A	A	A	A
Benzal Chloride	X	I	I	I	I	I	B	I	I	I	A	A	A	I	B	X	I	I	I	A	I	X	I
Benzaldehyde	X	B	X	X	X	X	B	X	X	X	A	A	A	A	A	B	I	X	X	A	X	X	B
Benzene (Benzol)	X	X	X	A	X	X	X	X	X	X	A	A	A	I	A	A	A	I	I	A	A	X	X
Benzine (Ligroin)	A	X	I	A	X	X	X	X	X	X	A	A	A	I	A	A	I	I	I	A	A	A	X
Benzine Solvent (Ligroin)	A	X	X	A	X	X	X	X	X	X	A	A	A	I	A	A	I	I	I	A	A	A	X
Benzoic Acid	I	B	X	I	X	B	B	A	B	B	A	A	A	A	B	B	X	X	X	A	I	I	B
Benzoic Aldehyde	X	B	X	X	X	X	B	X	I	I	A	A	A	I	A	I	B	I	I	A	X	X	B
Benzotrichloride	X	X	X	I	I	I	I	X	I	I	X	X	A	I	I	I	I	I	I	A	I	X	X
Benzoyl Chloride	X	X	X	I	I	I	I	X	I	I	X	B	A	I	B	I	I	I	I	A	I	X	X
Benzyl Acetate	X	I	X	X	X	B	A	X	I	I	A	A	A	I	B	I	I	I	I	A	X	X	I
Benzyl Alcohol	X	X	A	A	X	X	A	I	I	I	A	A	A	A	A	B	I	A	A	A	A	X	X
Benzyl Chloride	X	X	X	A	X	X	X	X	I	I	A	A	A	I	A	X	X	I	I	A	A	X	X
Benzyl Chloride	X	X	X	A	X	X	X	X	I	I	A	A	A	I	A	X	X	I	I	A	A	X	X
Bichromate of Soda	I	I	X	I	I	X	A	A	I	I	A	A	A	I	I	I	I	I	I	A	I	I	I
Black Sulfate Liquor	B	B	A	B	B	B	X	A	A	I	A	A	A	I	A	X	X	I	I	A	B	B	B
Black Sulfate Liquor	X	X	A	X	X	X	X	A	A	I	X	X	A	I	A	X	X	I	I	A	X	X	X
Bleach	X	A	I	B	X	X	B	A	A	B	X	X	A	I	X	X	X	X	A	A	B	X	A
Brine	A	A	A	A	A	A	A	A	A	B	A	A	A	I	A	X	I	X	A	A	A	A	A
Bromine	X	X	X	B	X	X	X	X	X	X	X	X	A	I	X	X	X	X	X	A	B	X	X
Bromo Benzene	X	X	I	B	X	X	X	X	I	X	B	X	A	I	I	I	I	I	I	A	B	X	X
Bromo Toluene	X	X	I	B	X	X	X	X	I	I	X	X	A	I	I	I	I	I	I	A	B	X	X
Bromochloromethane	X	I	I	B	X	X	B	X	I	X	X	X	A	I	A	X	X	I	I	A	B	X	I
Bunker C.	A	X	I	A	X	X	X	I	I	I	B	A	A	I	A	I	I	I	I	A	A	A	X
Bunker Oil	A	X	X	A	X	X	X	I	I	I	B	X	A	I	A	I	I	I	I	A	A	A	X
Butanol	A	A	I	B	A	A	A	X	I	B	A	A	A	A	A	I	I	I	I	A	B	A	A
Butyl (Normal) Alcohol	A	A	I	B	A	A	A	X	I	B	A	A	A	I	A	I	I	I	I	A	B	A	A
Butyl (Secondary) Alcohol	A	A	I	B	A	A	A	X	I	B	A	A		I	A	I	I	I	I		B	A	A
Butyl Acetate	X	B	X	X	X	B	A	X	X	X	A	A	A	I	A	B	I	I	X	A	X	X	B
Butyl Acetoacetate	X	I	I	X	X	X	X	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Butyl Acrylate	X	X	X	X	X	X	X	X	I	I	B	B	A	I	I	I	I	I	I	A	X	X	X
Butyl Alcohol	A	A	I	B	A	A	A	A	A	B	A	A	A	A	A	I	I	A	A	A	B	A	A
Butyl Aldehyde	X	X	I	X	X	X	B	I	I	I	A	A	A	I	X	A	X	I	I	A	X	X	X
Butyl Amine	X	X	I	X	X	X	B	I	I	I	A	A	A	I	A	A	I	I	I	A	X	X	X
Butyl Benzene	X	X	X	A	X	X	X	X	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Butyl Benzl Phthalate	X	I	I	X	X	X	A	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Butyl Bromide	X	X	X	B	X	X	X	X	I	I	B	B	A	I	I	I	I	I	I	A	B	X	X
Butyl Butyrate	X	I	X	X	X	X	X	X	I	I	B	B	A	I	I	I	I	I	I	A	X	X	I
Butyl Carbitol	X	B	X	I	X	A	A	I	I	I	A	A	A	I	I	I	I	I	I	A	I	X	B
Butyl Cellosolve	X	A	X	X	X	A	A	I	I	I	A	X	A	I	A	A	X	I	I	A	X	X	A
Butyl Chloride	X	I	X	A	X	X	X	X	I	I	B	B	A	I	B	I	I	I	I	A	A	X	I
Butyl Ether	B	X	X	X	X	B	X	I	I	I	A	A	A	I	A	I	I	I	I	A	X	B	X
Butyl Ethyl Acetaldehyde	X	I	X	X	X	X	B	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Butyl Ethyl Ether	B	X	X	I	X	B	X	I	I	I	A	A	A	I	I	I	I	I	I	A	I	B	X
Butyl Phthalate	X	I	X	X	X	X	A	X	I	X	A	A	A	I	A	A	I	I	I	A	X	X	I
Butyl Stearate	A	X	X	I	X	X	X	I	I	I	A	A	A	I	A	A	A	I	I	A	I	A	X
Butylate	I	A	I	I	I	I	I	I	I	I	A	I	I	I	I	I	I	I	I	I	I	I	A
Butyraldehyde	X	X	X	X	X	X	B	I	I	I	A	A	A	I	X	A	X	I	I	A	X	X	X
Butyric Acid	X	B	X	I	X	B	X	X	I	I	A	A	A	A	A	B	I	X	A	A	I	X	B
Butyric Anhydride	X	I	X	I	X	B	X	I	I	I	A	A	A	I	I	I	I	I	I	A	I	X	I
Cadmium Acetate	X	I	I	X	X	A	A	A	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Calcium Acetate	X	A	X	X	X	A	A	A	I	I	A	A	A	I	A	I	I	I	I	A	X	X	A

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Calcium Aluminate	A	A	I	A	A	A	A	A	I	I	A	A	A	I	I	I	I	I	I	A	A	A	A
Calcium Bichromate	I	I	I	I	I	X	A	A	I	I	X	X	A	I	I	I	I	I	I	A	I	I	I
Calcium Bisulfate	A	A	A	A	A	A	A	A	I	I	A	A	A	X	A	X	X	X	A	A	A	A	A
Calcium Bisulfite	A	A	A	A	A	A	A	A	A	I	A	I	A	A	A	X	X	X	A	A	A	A	A
Calcium Carbonate	A	A	A	A	A	A	A	A	A	I	A	A	A	A	A	I	X	A	A	A	A	A	A
Calcium Chloride	A	A	A	A	A	A	A	A	A	I	A	A	A	A	B	X	X	A	A	A	A	A	A
Calcium Hydroxide (Caustic Lime)	B	A	I	X	A	B	A	A	A	I	A	A		I	A	X	X	A	A		X	B	A
Calcium Hypochlorite	X	B	X	B	X	X	B	A	A	I	B	X	A	X	A	X	X	X	A	A	B	X	B
Calcium Nitrate	A	A	A	A	A	A	A	A	A	I	A	A	A	I	B	X	X	I	I	A	A	A	A
Calcium Silicate	A	A	I	A	A	A	A	A	A	I	A	A	A	I	I	A	I	I	I	A	A	A	A
Calcium Sulfate	A	A	A	A	A	A	A	A	A	I	A	A	A	A	A	I	I	A	A	A	A	A	A
Calcium Sulfhydrate	A	A	I	A	A	A	A	I	I	I	A	A	A	I	I	I	I	I	I	A	A	A	A
Calcium Sulfide	A	A	A	A	A	A	A	A	A	I	A	A	A	I	A	X	X	I	I	A	A	A	A
Calcium Sulfite	A	A	A	A	X	A	A	A	A	I	A	A	A	I	B	B	X	I	I	A	A	A	A
Caprylic Acid	X	I	I	I	X	B	X	I	I	I	A	A	A	I	B	I	X	I	I	A	I	X	I
Carbitol	X	A	X	I	X	A	A	I	I	I	A	A	A	I	B	A	X	I	I	A	I	X	A
Carbitol Acetate	X	I	X	I	X	B	B	I	I	I	A	A	A	I	I	I	I	I	I	A	I	X	I
Carbolic Acid, Phenol	X	X	I	A	X	X	A	X	X	X	A	A	A	I	A	B	A	I	I	A	A	X	X
Carbon Dioxide	A	A	A	A	A	A	A	A	A	B	A	A	A	I	A	B	I	I	I	A	A	A	A
Carbon Disulfide											N/R			B	B	A	X	A	X				
Carbon Tetrachloride	X	X	X	A	X	X	X	X	X	X	B	A	A	A	A	I	I	A	X	A	A	X	X
Carbonic Acid	A	A	A	A	A	A	A	A	I	I	A	A	A	A	A	B	B	X	A	A	A	A	A
Casinghead Gasoline	A	X	I	A	X	X	X	X	I	X	B	B	A	I	I	I	I	I	I	A	A	A	X
Caster Oil (Castor Oil)	A	A	I	A	X	A	A	I	I	I	A	A	A	I	A	A	I	X	A	A	A	A	A
Caustic Potash	B	B	A	X	A	B	A	A	A	A	A	A	A	I	A	X	X	A	A	A	X	B	B
Caustic Soda	B	A	I	X	A	B	A	A	A	B	A	A	A	I	A	X	X	X	A	A	X	B	A
Cellosize	X	I	I	I	X	X	A	I	I	I	A	A	A	I	I	I	I	I	I	A	I	X	I
Cellosolve	X	A	X	X	X	A	A	I	I	I	A	A	A	I	A	A	X	X	I	A	X	X	A
Cellosolve Acetate	X	B	I	X	X	B	B	I	I	I	A	A	A	I	A	I	X	I	I	A	X	X	B
Chloracetic Acid	X	X	I	X	B	X	X	I	I	I	A	A	A	X	A	X	X	X	X	A	X	X	X
Chlorinated Solvents	X	X	I	A	X	X	X	X	I	I	B	A	A	I	B	X	A	I	I	A	A	X	X
Chlorine (Dry) (Gas)											N/R												
Chlorine (Wet)	X	X	I	B	X	X	X	X	B	B	B	X	A	I	X	X	X	I	I	A	B	X	X
Chloroacetone	X	X	X	X	X	X	I	X	I	I	A	A	A	I	A	X	X	I	I	A	X	X	X
Chlorobenzene	X	X	X	A	X	X	X	X	X	X	B	A	A	I	A	B	I	I	I	A	A	X	X
Chlorobenzol	X	X	I	A	X	X	X	I	I	I	A	A	A	I	A	B	I	I	I	A	A	X	X
Chlorobutane	X	I	X	A	X	X	X	X	I	I	X	X	A	I	I	I	I	I	I	A	A	X	I
Chloroethylbenzene	X	X	I	A	X	X	X	X	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Chloroform	X	X	X	B	X	X	X	X	X	X	B	X	A	A	A	B	I	X	X	A	B	X	X
Chloropentane	X	X	X	A	X	X	X	X	I	X	A	A	A	I	A	X	I	I	I	A	A	X	X
Chlorophenol	X	X	X	B	X	X	X	X	I	I	A	X	A	I	I	I	I	I	I	A	B	X	X
Chloropropanone	X	X	X	X	X	X	I	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	X
Chlorosulfonic Acid	X	X	X	X	X	X	X	B	I	X	X	X	A	X	B	X	X	X	X	A	X	X	X
Chlorothene	X	X	I	A	X	X	X	X	I	X	X	A	A	I	A	I	I	I	I	A	A	X	X
Chlorotoluene	X	X	X	A	X	X	X	X	X	X	X	X	A	I	A	I	I	I	I	A	A	X	X
Chlorpyrifos	I	X	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	X
Chromic Acid 25%	X	X	I	I	X	B	X	I	I	I	B	X	A	I	B	X	X	X	X	A	I	X	X
Coal Oil	A	X	X	A	X	X	X	I	I	I	A	A	A	I	A	X	A	I	I	A	A	A	X
Coal Tar	X	X	X	A	X	X	X	I	I	I	A	A	A	I	A	I	I	I	I	A	A	X	X
Coal Tar Naptha	X	X	X	A	X	X	X	I	I	I	A	A	A	I	A	A	I	I	I	A	A	X	X
Copper Chloride	A	A	A	A	X	A	A	A	A	B	A	A	A	X	X	X	X	A	A	A	A	A	A
Copper Hydrate	B	I	I	X	X	B	A	A	I	I	A	A	A	I	I	I	I	I	I	A	X	B	I
Copper Hydroxide	B	I	I	X	X	B	A	A	I	I	A	A	A	I	I	I	I	I	I	A	X	B	I
Copper Nitrate	A	A	A	A	X	A	A	A	A	I	A	A	A	A	A	X	X	X	A	A	A	A	A
Copper Nitrite	A	A	A	A	X	A	A	A	A	I	A	A	A	I	I	I	I	I	I	A	A	A	A
Copper Sulfate	A	A	A	A	X	A	A	A	A	I	A	A	A	A	A	X	X	A	A	A	A	A	A
Copper Sulfide	A	A	A	A	X	A	A	A	B	I	A	A	A	I	I	I	I	I	I	A	A	A	A
Creosols	X	X	I	A	X	X	A	I	I	I	A	A	A	I	A	I	X	I	I	A	A	X	X
Creosote	B	X	I	A	X	X	X	X	X	X	A	A	A	A	A	I	I	I	X	A	A	B	X
Cresylic Acid	X	X	X	I	X	X	A	I	I	I	A	A	A	A	A	B	X	X	I	A	I	X	X
Crotonaldehyde	X	I	X	X	X	X	A	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I

CHEMICAL RESISTANCE GUIDE @ 20°C/70°F

RATING DEFINITIONS A = CONTINUOUS SERVICE B = INTERMITTENT USE I = INSUFFICIENT DATA X = DO NOT USE

CHEMICAL RESISTANCE GUIDE	HOSE MATERIAL													COUPLING MATERIAL						GASKET MATERIAL			
	NITIRLE	EPDM	SBR	VITON	NATURAL	HYPALON	BUTYL	PVC	TPU	TPR	UHWMPE	XLPE	TEFLON	304SS	316SS	ALUMINUM	BRASS	NYLON	POLYPROPYLENE	TEFLON	VITON	BUNA	EPDM
Crude Oil	A	X	X	A	X	X	X	A	B	X	A	A	A	I	A	A	I	I	I	A	A	A	X
Cumene	X	X	X	A	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Cupric Carbonate	A	A	B	A	X	A	A	A	I	I	A	A	A	I	I	I	I	I	I	A	A	A	A
Cupric Chloride	A	A	B	A	X	A	A	A	A	I	A	A	A	I	B	X	I	I	I	A	A	A	A
Cupric Nitrate	A	A	B	A	X	A	A	A	A	I	A	A	A	I	B	I	I	I	I	A	A	A	A
Cupric Nitrite	A	A	B	A	X	A	A	A	A	I	A	A	A	I	I	I	I	I	I	A	A	A	A
Cupric Sulfate	A	A	A	A	X	A	A	A	A	I	A	A	A	I	I	I	I	I	I	A	A	A	A
Cyclohexane	B	X	X	A	X	X	X	X	X	X	A	A	A	A	A	B	X	I	X	A	A	B	X
Cyclohexanol	B	X	X	B	X	X	X	X	X	X	A	A	A	I	A	X	X	I	I	A	B	B	X
Cyclohexanone	X	X	X	X	X	X	X	X	X	X	A	A	A	I	A	I	I	I	I	A	X	X	X
Cyclopentane	B	X	X	A	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	A	B	X
Cyclopentane, methyl	B	X	I	A	X	X	X	A	I	I	A	A	A	I	I	I	I	I	I	A	A	B	X
Cyclopentanol	B	X	I	B	X	X	X	A	I	I	A	A	A	I	I	I	I	I	I	A	B	B	X
Cyclopentanone	X	X	I	X	X	X	X	A	I	I	A	A	A	I	I	I	I	I	I	A	X	X	X
D.D.T. in Kerosene	A	X	I	A	X	X	X	X	X	X	A	A	A	I	I	I	A	I	I	A	A	A	X
D.M.P.	X	X	I	X	X	X	X	I	I	I	X	X	A	I	A	I	I	I	I	A	X	X	X
Decalin®	X	X	I	A	X	X	X	I	I	I	X	A	A	I	I	I	I	I	I	A	A	X	X
Decanol	A	A	I	B	X	A	A	B	I	I	A	A	A	I	I	I	I	I	I	A	B	A	A
Decyl Alcohol	A	A	I	B	X	A	A	A	I	I	A	A	A	I	I	I	I	I	I	A	B	A	A
Decyl Aldehyde	X	I	I	X	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Decyl Butyl Phthalate	X	I	I	X	X	X	A	X	X	X	A	A	A	I	I	I	I	I	I	A	X	X	I
Denatured Alcohol	A	A	I	B	A	A	A	A	I	I	A	A	A	I	A	B	A	I	I	A	B	A	A
Diacetone Alcohol	X	X	X	X	B	B	A	A	B	B	A	A	A	A	A	I	I	A	X	A	X	X	X
Diamyl Phenol	X	X	I	A	X	X	X	X	X	X	A	A	A	I	I	I	I	I	I	A	A	X	X
Diamylamine	B	I	B	I	B	X	A	I	I	I	A	A	A	I	I	I	I	I	I	A	I	B	I
Diamylene	X	X	I	A	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Dibenzyl Ether	X	X	X	I	X	X	B	I	I	I	A	A	A	I	A	A	X	I	I	A	I	X	X
Dibromobenzene	X	X	X	A	X	X	X	X	I	I	B	A	A	I	I	I	I	I	I	A	A	X	X
Dibutyl Amine	B	X	I	X	B	X	X	X	I	I	A	A	A	I	I	I	I	I	I	A	X	B	X
Dibutyl Ether	X	X	I	X	X	B	X	I	I	I	A	A	A	I	A	A	X	I	I	A	X	X	X
Dibutyl Phthalate	X	A	I	X	X	X	A	X	X	X	A	A	A	I	A	A	I	I	I	A	X	X	A
Dibutyl Sebacate	X	X	X	X	X	X	A	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	X
Dicalcium Phosphate	A	A	A	A	A	A	A	A	B	I	A	A	A	I	I	I	I	I	I	A	A	A	A
Dicamba	I	A	I	I	I	I	I	I	I	I	A	A	A	I	I	I	I	I	I	A	I	I	A
Dichloroacetic Acid	X	I	X	X	B	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Dichlorobenzene	X	X	I	A	X	X	X	X	X	X	A	A	A	I	A	B	I	I	I	A	A	X	X
Dichlorobutane	X	X	X	A	X	X	X	X	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Dichlorodifluoromethane	B	X	X	B	X	X	X	I	I	I	I	I	A	I	I	I	I	I	I	A	B	B	X
Dichloroethane	X	X	X	A	X	X	X	X	I	I	A	A	A	I	I	A	I	I	I	A	A	X	X
Dichloroethyl Ether	X	X	X	I	X	X	X	X	I	X	A	A	A	I	I	I	I	I	I	A	I	X	X
Dichloroethylene	X	I	X	A	X	X	X	X	I	X	X	X	A	I	I	A	X	I	I	A	A	X	I
Dichlorohexane	X	X	X	A	X	X	X	X	I	X	A	A	A	I	I	I	I	I	I	A	A	X	X
Dichloromethane	X	X	X	A	X	X	X	X	I	X	A	A	A	I	A	B	I	I	I	A	A	X	X
Dichloropentane	X	X	X	A	X	X	X	X	I	X	A	A	A	I	I	I	I	I	I	A	A	X	X
Dichloropropane	X	X	I	A	X	X	X	X	I	X	A	B	A	I	A	X	I	I	I	A	A	X	X
Diesel Oil	A	X	X	A	X	X	X	B	I	X	A	A	A	I	A	A	I	I	I	A	A	A	X
Diethanol Amine	B	I	I	I	B	X	A	I	I	I	A	A	A	I	A	I	I	I	I	A	I	B	I
Diethyl Benzene	X	X	X	A	X	X	X	X	I	X	A	A	A	I	I	I	I	I	I	A	A	X	X
Diethyl Carbinol	A	I	I	B	A	A	A	I	I	I	A	A	A	I	I	I	I	I	I	A	B	A	I
Diethyl Ketone	X	X	I	X	X	X	B	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	X
Diethyl Oxalate	X	X	I	I	B	X	B	X	I	I	A	A	A	I	I	I	I	I	I	A	I	X	X
Diethyl Phthalate	X	X	X	X	X	X	A	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	X
Diethyl Sebacate	X	X	X	X	X	X	A	X	I	I	A	A	A	I	A	A	I	I	I	A	X	X	X
Diethyl Sulfate	X	I	X	X	X	X	B	I	I	I	A	A	A	I	X	I	I	I	I	A	X	X	I
Diethyl Triamine	B	I	B	I	B	X	A	I	I	I	A	A	A	I	I	I	I	I	I	A	I	B	I
Diethylamine	B	B	B	I	B	X	A	I	I	I	A	A	A	A	A	I	X	X	A	A	I	B	B
Diethylene Dioxide	X	A	X	X	X	X	B	I	I	I	A	A	A	I	X	X	X	I	I	A	X	X	A
Diethylene Glycol	A	A	A	A	A	A	A	B	I	I	A	A	A	I	A	B	A	I	I	A	A	A	A
Diethylene Triamine	B	I	I	I	B	X	A	I	I	I	A	A	A	I	I	I	X	I	I	A	I	B	I
Dihydroxydiethyl Ether	A	A	I	A	A	A	A	I	I	I	A	A	A	I	I	I	I	I	I	A	A	A	A
Dihydroxyethyl Amine	B	I	B	I	B	X	A	I	I	I	A	A	A	I	I	I	I	I	I	A	I	B	I

CHEMICAL RESISTANCE GUIDE @ 20°C/70°F

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CHEMICAL RESISTANCE GUIDE	HOSE MATERIAL													COUPLING MATERIAL						GASKET MATERIAL			
	NITIRLE	EPDM	SBR	VITON	NATURAL	HYPALON	BUTYL	PVC	TPU	TPR	UHWMPE	XLPE	TEFLON	304SS	316SS	ALUMINUM	BRASS	NYLON	POLYPROPYLENE	TEFLON	VITON	BUNA	EPDM
Diisobutyl Ketone	X	B	X	X	X	X	B	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	B
Diisobutylene	A	X	X	A	X	X	X	I	I	I	A	A	A	I	A	I	I	I	I	A	A	A	X
Diisoctyl Adipate	X	I	I	X	X	X	A	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Diisoctyl Phthalate	X	I	I	X	X	X	A	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Diisocyanate	X	X	I	X	X	X	X	I	I	I	X	X	A	I	I	I	I	I	I	A	X	X	X
Diisodecyl Adipate	X	I	X	X	X	X	A	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Diisodecyl Phthalate	X	I	X	X	X	X	A	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Diisopropanol Amine	B	I	B	I	B	X	A	I	I	I	A	A	A	I	I	I	I	I	I	A	I	B	I
Diisopropyl Amine	B	I	I	I	B	X	A	X	I	I	A	A	A	I	I	I	I	I	I	A	I	B	I
Diisopropyl Ether	B	X	X	I	X	B	X	I	I	I	A	A	A	I	A	I	I	I	I	A	I	B	X
Diisopropyl Ketone	X	B	X	X	X	X	B	X	I	I	A	A	A	I	A	A	I	I	I	A	X	X	B
Dilauryl Ether	B	I	X	I	X	B	I	I	I	I	A	A	A	I	I	I		I	I	A	I	B	I
Dimethyl Amine											N/R												
Dimethyl Benzene	X	X	X	A	X	X	X	X	I	I	A	A	A	I	A	I	I	I	I	A	A	X	X
Dimethyl Carbinol	A	A	I	B	A	A	A	I	I	I	A	A	A	I	A	I	I	I	I	A	B	A	A
Dimethyl Ether	B	X	I	I	X	B	X	I	I	I	A	B	A	I	I	I	I	I	I	A	I	B	X
Dimethyl Ketone	X	A	I	X	B	X	A	X	I	I	A	B	A	I	A	A	I	I	I	A	X	X	A
Dimethyl Phenol	X	X	I	A	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Dimethyl Phthalate	X	B	X	X	X	X	A	X	I	I	A	A	A	I	A	I	I	I	I	A	X	X	B
Dimethyl Sulfate	X	I	X	X	X	X	B	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Dimethyl Sulfide											N/R												
Dinitrobenzene	X	I	X	A	X	X	X	X	I	I	A	A	A	I	I	I	I	I	I	A	A	X	I
Dioctyl Adipate	X	B	I	X	X	X	A	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	B
Dioctyl Amine	B	I	I	I	B	X	A	I	I	I	A	A	A	I	I	I	I	I	I	A	I	B	I
Dioctyl Phthalate	X	X	I	A	X	X	B	X	X	X	A	A	A	I	A	I	I	I	I	A	A	X	X
Dioctyl Sebacate	X	B	I	X	X	X	A	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	B
Dioxane	X	X	X	X	X	X	B	I	I	I	A	A	A	I	A	I	I	I	I	A	X	X	X
Dioxolane	X	X	X	I	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	I	X	X
Diphenyl Phthalate	X	I	I	X	X	X	A	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Dipropyl Ketone	X	I	X	X	X	X	B	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Dipropylamine	B	I	A	I	B	X	A	I	I	I	A	A	A	I	I	I	I	I	I	A	I	B	I
Dipropylene Glycol	A	I	A	A	A	A	A	I	I	I	A	A	A	I	I	I	I	I	I	A	A	A	I
Disodium Phosophate	A	I	I	I	A	A	A	A	A	B	A	A	A	I	A	I	B	A	A	A	I	A	I
Divinyl Benzene	X	X	X	A	X	X	X	X	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Dodecyl Benzene	X	X	X	A	X	X	X	X	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Dodecyl Toluene	X	X	X	A	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Dow-Per	X	X	X	A	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Dowtherm® A	X	X	I	A	X	X	I	I	I	I	A	A	A	I	I	A	I	I	I	A	A	X	X
Dowtherm® E	X	X	I	A	X	X	X	I	I	I	A	A	A	I	I	X	I	I	I	A	A	X	X
Dowtherm® SR-1	A	I	I	A	A	A	A	I	I	I	A	A	A	I	I	I	I	I	I	A	A	A	I
Endolene	I	I	I	I	I	I	I	I	I	I	I	I		I	I	I	I	I	I		I	I	I
Epichlorohydrin											N/R												
Ethanol	A	A	I	B	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	B	A	A
Ethanol Amine	B	B	I	I	B	B	A	A	B	I	A	A	A	I	A	B	I	I	I	A	I	B	B
Ethyl Acetate	X	A	X	X	X	X	B	X	X	B	A	A	A	A	A	A	A	A	X	A	X	X	A
Ethyl Acetoacetate	X	B	X	X	X	X	B	X	I	I	A	A	A	I	B	I	I	I	I	A	X	X	B
Ethyl Acrylate	X	X	X	X	X	X	X	X	X	I	A	B	A	I	A	A	A	I	I	A	X	X	X
Ethyl Alcohol	A	A	I	A	A	A	A	A	A	A	A	A	A	I	A	B	A	I	I	A	A	A	A
Ethyl Aldehyde											N/R												
Ethyl Aluminum Dichloride	X	X	I	B	X	X	X	I	I	I	X	B	A	I	I	I	I	I	I	A	B	X	X
Ethyl Benzene	X	X	X	A	X	X	X	X	I	X	A	A	A	I	A	A	X	I	I	A	A	X	X
Ethyl Butanol	A	A	I	B	A	A	A	A	I	I	A	A	A	I	I	I	I	I	I	A	B	A	A
Ethyl Butyl Acetate	X	I	I	X	X	B	A	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Ethyl Butyl Alcohol	A	A	A	B	A	A	A	A	I	I	A	A	A	I	I	I	I	I	I	A	B	A	A
Ethyl Butyl Amine	B	I	B	I	B	X	A	I	I	I	A	I	A	I	I	I	I	I	I	A	I	B	I
Ethyl Butyl Ketone	X	I	X	X	X	X	B	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Ethyl Butyraldehyde	X	I	I	X	X	X	B	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Ethyl Chloride											N/R			I	A	I	I	A	X				
Ethyl Dichloride	X	X	X	B	X	X	X	X	X	X	B	B	A	I	I	I	I	I	I	A	B	X	X
Ethyl Ether											N/R												
Ethyl Formate	X	B	X	X	X	X	B	X	I	I	A	A	A	I	A	I	I	I	I	A	X	X	B

CHEMICAL RESISTANCE GUIDE @ 20°C/70°F

RATING DEFINITIONS A = CONTINUOUS SERVICE B = INTERMITTENT USE I = INSUFFICIENT DATA X = DO NOT USE

CHEMICAL RESISTANCE GUIDE	HOSE MATERIAL													COUPLING MATERIAL						GASKET MATERIAL			
	NITIRLE	EPDM	SBR	VITON	NATURAL	HYPALON	BUTYL	PVC	TPU	TPR	UHWMPE	XLPE	TEFLON	304SS	316SS	ALUMINUM	BRASS	NYLON	POLYPROPYLENE	TEFLON	VITON	BUNA	EPDM
Ethyl Hexanol	A	A	A	B	A	A	A	I	I	I	A	A	A	I	I	I	I	I	I	A	B	A	A
Ethyl Hexoic Acid	X	I	I	I	X	B	X	I	I	I	A	A	A	I	I	I	I	I	I	A	I	X	I
Ethyl Hexyl Acetate	X	I	I	X	X	B	A	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Ethyl Hexyl Alcohol	A	A	I	B	A	A	A	A	I	I	A	A	A	I	I	I	I	I	I	A	B	A	A
Ethyl Iodide	X	X	I	B	X	X	X	X	X	X	X	B	A	I	I	I	I	I	I	A	B	X	X
Ethyl Isobutyl Ether	B	X	I	I	X	B	X	X	I	I	A	A	A	I	I	I	I	I	I	A	I	B	X
Ethyl Methyl Ketone	X	I	X	X	X	X	B	X	X	X	A	A	A	I	A	A	A	I	I	A	X	X	I
Ethyl Oxalate	X	X	A	I	A	X	A	X	I	I	A	A	A	I	I	I	I	I	I	A	I	X	X
Ethyl Phthalate	X	I	X	X	X	X	A	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Ethyl Propyl Ether	B	X	X	I	X	B	X	X	I	I	A	A	A	I	I	I	I	I	I	A	I	B	X
Ethyl Propyl Ketone	X	I	X	X	X	X	B	X	X	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Ethyl Silicate	A	I	B	I	X	I	A	I	I	I	A	A	A	I	A	I	I	I	I	A	I	A	I
Ethyl Sulfate	X	I	X	X	X	X	B	I	I	I	A	A	A	X	X	I	I	I	I	A	X	X	I
Ethylamine											N/R												
Ethylene Bromide	X	X	X	B	X	X	X	X	X	X	X	B	A	I	A	X	I	I	I	A	B	X	X
Ethylene Chloride	X	X	X	B	X	X	X	X	X	X	B	B	A	A	A	B	I	A	X	A	B	X	X
Ethylene Diamine	B	B	B	I	B	X	A	I	I	I	A	A	A	I	A	I	I	I	I	A	I	B	B
Ethylene Dibromide	X	X	X	B	X	X	X	X	X	X	X	B	A	I	A	X	I	I	I	A	B	X	X
Ethylene Dichloride	X	X	X	B	X	X	X	X	X	X	B	B	A	A	A	B	I	A	X	A	B	X	X
Ethylene Glycol	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	I	A	X	A	A	A	A
Ethylhexil Phosphorodieth	A	X	I	I	I	X	X	I	I	I	I	X		I	I	I	I	I	I		I	A	X
Ex-Tri	X	I	I	A	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	A	X	I
Ferric Bromide	A	A	A	A	A	A	A	A	A	B	A	A	A	I	I	I	I	I	I	A	A	A	A
Ferric Chloride	A	A	A	A	A	A	A	A	A	A	A	A	A	I	X	X	X	X	A	A	A	A	A
Ferric Sulfate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	X	X	X	A	A	A	A	A
Ferrous Acetate	X	I	X	X	X	A	A	A	A	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Ferrous Chloride	A	A	A	B	A	A	A	A	A	B	A	A	A	X	I	X	X	X	A	A	B	A	A
Ferrous Hydroxide	B	I	B	X	A	B	A	A	I	I	A	A	A	I	B	I	I	I	I	A	X	B	I
Ferrous Sulfate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	X	X	X	A	A	A	A	A
Fluoboric Acid 65%	I	I	I	I	A	A	A	I	I	I	B	I	A	I	I	I	X	X	A	A	I	I	I
Fluorine (wet)	X	X	I	X	X	X	X	I	I	I	X	X	B	I	X	X	X	I	I	B	X	X	X
Fluosilicic Acid 50%	I	I	I	I	A	A	A	I	I	I	B	I	A	I	A	X	X	I	I	A	I	I	I
Formaldehyde 40%	A	A	I	B	B	A	A	I	I	I	A	A	A	I	A	B	I	X	A	A	B	A	A
Formalin	A	A	I	A	B	A	A	I	I	A	A	A	A	I	A	B	I	I	I	A	A	A	A
Formic Acid	X	A	A	X	B	X	A	I	I	I	A	B	A	A	B	I	X	X	A	A	X	X	A
Freon® 12	B	X	I	B	X	X	X	B	B	X	A	B	A	I	A	I	I	I	I	A	B	B	X
Freon® 22	X	I	I	X	X	X	X	X	X	X	A	B	A	I	A	I	I	I	I	A	X	X	I
Fuel A (ASTM)	A	X	I	A	X	X	X	B	A	I	B	B	A	I	A	A	A	I	I	A	A	A	X
Fuel B (ASTM)	A	X	I	A	X	X	X	B	A	X	B	B	A	I	I	I	I	I	I	A	A	A	X
Fuel Oil	A	X	X	A	X	X	X	B	A	X	A	B	A	I	A	A	I	A	X	A	A	A	X
Furfural	X	B	X	X	I	I	A	X	X	X	A	A	A	A	A	A	X	A	X	A	X	X	B
Furfuryl Alcohol	I	I	X	X	I	I	X	I	I	I	A	A	A	I	A	A	I	I	I	A	X	I	I
Gallic Acid	I	B	A	I	A	I	B	I	I	I	A	I	A	A	B	I	I	A	I	A	I	I	B
Gasoline	A	X	I	A	X	X	X	X	X	X	B	B	A	A	A	I	I	A	X	A	A	A	X
Glacial Acetic Acid	X	A	I	X	X	X	B	B	X	I	A	A	A	I	A	B	X	I	I	A	X	X	A
Gluconic Acid	X	I	X	I	X	B	X	I	I	I	A	A	A	I	X	X	A	I	I	A	I	X	I
Glycerin	A	A	I	A	A	A	A	A	A	B	A	B	A	I	A	A	A	A	A	A	A	A	A
Glyphosate	I	A	I	I	I	I	I	I	I	I	A	I	I	I	I	I	I	I	I	I	I	I	A
Graffinite	A	X	I	X	X	X	X	I	I	I	I	X	I	I	I	I	I	I	I	I	X	A	X
Grease	A	X	X	A	X	X	X	A	A	B	A	B	A	A	A	A	A	A	I	A	A	A	X
Green Sulfate Liquor	A	A	A	I	A	A	A	I	I	I	A	A	A	I	A	X	X	I	I	A	I	A	A
Heptanal	X	I	I	X	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Heptane	A	X	X	A	X	X	X	A	A	X	A	B	A	I	A	A	I	A	X	A	A	A	X
Heptane Carboxylic Acid	X	I	X	A	X	B	X	I	I	I	A	A	A	I	I	I	I	I	I	A	A	X	I
Hexaldehyde	X	X	X	X	X	X	X	I	I	I	A	A	A	I	A	A	I	I	I	A	X	X	X
Hexane	A	X	X	A	X	X	X	A	A	X	B	B	A	A	A	A	A	A	X	A	A	A	X
Hexanol	A	A	I	B	A	A	A	A	B	B	A	A	A	I	A	I	I	I	I	A	B	A	A
Hexyl Methyl Ketone	X	I	X	X	X	X	B	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Hexyl-Alcohol	A	X	I	B	A	A	A	I	I	I	A	A	A	I	A	I	I	I	I	A	B	A	X
Hexylamine	X	I	B	X	X	X	B	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Hexylene	A	X	X	A	X	X	X	I	I	I	X	X	A	I	I	I	I	I	I	A	A	A	X

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CHEMICAL RESISTANCE GUIDE	HOSE MATERIAL													COUPLING MATERIAL						GASKET MATERIAL			
	NITIRLE	EPDM	SBR	VITON	NATURAL	HYPALON	BUTYL	PVC	TPU	TPR	UHWMPE	XLPE	TEFLON	304SS	316SS	ALUMINUM	BRASS	NYLON	POLYPROPYLENE	TEFLON	VITON	BUNA	EPDM
Hexylene Glycol	A	I	A	A	A	A	A	B	I	I	A	A	A	I	A	B	A	I	I	A	A	A	I
Hi-Tri	X	X	I	A	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Hydrobromic Acid (37%)	X	A	I	I	A	A	A	I	I	I	B	I	A	I	X	X	X	X	A	A	I	X	A
Hydrochloric Acid (38%)	X	B	I	X	B	X	A	I	I	I	A	A		I	X	X	X	I	I		X	X	B
Hydrochloric Acid 38% Fuming	X	B	I	I	B	X	A	I	I	I	I	A		I	X	X	X	I	I		I	X	B
Hydrofluoric Acid (10%)	X	I	I	I	X	A	A	I	I	I	A	A	A	I	A	X	X	I	I	A	I	X	I
Hydrofluosilicic Acid	I	A	I	I	A	A	B	B	B	I	B	I	A	X	A	X	X	I	I	A	I	I	A
Hydrogen Dioxide 10%	X	I	I	A	X	X	X	A	I	I	B	I	A	I	A	B	X	I	I	A	A	X	I
Hydrogen Dioxide over 10%	X	X	I	I	X	X	X	A	I	I	B	I		I	I	I	X	I	I		I	X	X
Hydrogen Gas		No Hose is Recommended For This Application																					
Hydrogen Peroxide 10% to 50%	X	I	I	A	X	X	X	I	I	I	B	I	A	I	I	B	I	X	A	A	A	X	I
Hydrogen Peroxide over 50%	X	X	I	X	X	X	X	I	I	I	X	X	A	I	A	I	X	I	I	A	X	X	X
Iodine	I	I	X	I	I	A	I	X	X	X	A	B	A	X	I	I	X	X	A	A	I	I	I
Iron Acetate	X	I	X	X	X	A	A	A	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Iron Hydroxide	B	I	B	X	X	B	A	A	I	I	A	A	A	I	I	I	I	I	I	A	X	B	I
Iron Salts	A	A	A	A	A	A	A	A	I	B	A	A	A	I	I	I	I	I	I	A	A	A	A
Iron Sulfate	A	A	A	A	A	A	A	A	I	A	A	A	A	I	I	I	I	I	I	A	A	A	A
Iron Sulfide	A	A	A	A	A	A	A	A	I	I	A	A	A	I	I	I	I	I	I	A	A	A	A
Isoamyl Acetate	X	X	X	X	X	B	A	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	X
Isoamyl Alcohol	A	A	A	B	A	A	A	A	I	I	A	A	A	I	A	I	A	I	I	A	B	A	A
Isoamyl Bromide	X	X	X	B	X	X	X	X	X	I	B	B	A	I	I	I	I	I	I	A	B	X	X
Isoamyl Butyrate	X	I	X	X	X	X	X	X	I	I	B	B	A	I	I	I	I	I	I	A	X	X	I
Isoamyl Chloride	X	I	X	B	X	X	X	X	I	I	X	X	A	I	I	I	I	I	I	A	B	X	I
Isoamyl Ether	B	X	X	I	X	B	X	X	I	I	A	A	A	I	I	I	I	I	I	A	I	B	X
Isoamyl Phthalate	X	I	X	X	X	X	A	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Isobutane		No Hose is Recommended For This Application																					
Isobutanol	A	A	I	B	A	A	A	A	I	A	A	A	A	I	A	I	I	I	I	A	B	A	A
Isobutyl Acetate	X	X	X	X	X	B	A	X	I	I	A	A	A	I	A	B	I	I	I	A	X	X	X
Isobutyl Alcohol	X	A	I	B	A	A	A	A	I	A	A	A	A	A	A	I	I	A	A	A	B	X	A
Isobutyl Aldehyde	X	I	X	X	X	X	B	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Isobutyl Amine	X	I	B	X	X	X	B	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Isobutyl Bromide	X	X	X	B	X	X	X	I	I	I	B	X	A	I	I	I	I	I	I	A	B	X	X
Isobutyl Carbinol	A	A	A	B	A	A	A	I	I	I	A	A	A	I	A	I	A	I	I	A	B	A	A
Isobutyl Chloride	X	X	X	B	X	X	X	I	I	I	B	X	A	I	I	I	I	I	I	A	B	X	X
Isobutyl Ether	X	X	X	I	X	B	X	I	I	I	A	A	A	I	I	I	I	I	I	A	I	X	X
Isobutylene	X	X	X	A	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Isooctane	A	X	X	A	X	X	X	B	I	I	B	B	A	I	A	A	A	I	I	A	A	A	X
Isopentane		No Hose is Recommended For This Application																					
Isophorone	X	A	I	I	I	I	A	I	I	I	B	B	A	I	B	A	I	I	I	A	I	X	A
Isopropanol	A	A	I	B	A	A	A	A	I	A	A	A	A	I	A	I	I	I	I	A	B	A	A
Isopropanol Amine	B	I	I	X	B	X	A	I	I	I	A	A	A	I	I	I	I	I	I	A	X	B	I
Isopropyl Acetate	X	X	X	X	X	X	A	X	X	I	A	A	A	I	A	I	I	I	I	A	X	X	X
Isopropyl Alcohol	A	A	A	B	A	A	A	A	A	B	A	A	A	A	A	I	I	A	A	A	B	A	A
Isopropyl Amine	X	I	X	X	X	X	B	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Isopropyl Benzene	X	X	X	A	X	X	X	X	I	X	A	A	A	I	I	I	I	I	I	A	A	X	X
Isopropyl Chloride		No Hose is Recommended For This Application																					
Isopropyl Ether	X	X	X	I	X	B	X	I	I	I	A	A	A	I	A	I	I	A	X	A	I	X	X
Isopropyl Toluene	X	X	X	A	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Jet Fuels			Special Hose Required																				
Kerosene	B	X	X	A	X	X	X	B	X	X	A	A	T	A	A	A	I	X	X	T	A	B	X
Lauryl Alcohol	A	A	A	B	A	A	A	I	I	I	A	A	T	I	I	I	I	I	I	T	B	A	A
Lead Acetate	X	B	X	X	X	X	A	A	A	B	A	A	T	A	A	X	X	X	A	T	X	X	B
Lead Sulfate	A	A	A	A	A	A	A	X	I	I	A	A	T	I	A	X	X	I	I	T	A	A	A
Ligroin	A	X	X	A	X	X	X	I	I	I	A	A	T	I	A	A	I	I	I	T	A	A	X
Linseed Oil	A	B	X	A	X	B	A	A	A	X	A	I	T	A	A	I	A	A	A	T	A	A	B
Liquefied Natural Gas (LNG)																							
Liquefied Petroleum Gas (LPG)																							
Lubricating Oils	A	X	X	A	X	X	X	B	A	I	A	A	T	I	A	A	A	I	I	T	A	A	X
M.E.K.	X	X	I	X	X	X	X	X	X	X	A	A	T	I	X	X	X	A	X	T	X	X	X
Magnesium Acetate	X	I	X	X	X	A	A	A	I	I	A	A	T	I	I	I	I	I	I	T	X	X	I
Magnesium Chloride	A	A	A	A	A	A	A	A	A	A	A	A	T	A	A	X	I	X	A	T	A	A	A

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	NITIRLE	EPDM	SBR	VITON	NATURAL	HYPALON	BUTYL	PVC	TPU	TPR	UHWMPE	XLPE	TEFLON	304SS	316SS	ALUMINUM	BRASS	NYLON	POLYPROPYLENE	TEFLON	VITON	BUNA	EPDM
Magnesium Hydrate	B	I	A	B	A	B	A	A	I	B	A	A	T	I	A	X	I	I	I	T	B	B	I
Magnesium Hydroxide	B	A	A	B	A	B	A	A	A	A	A	A	T	A	A	X	I	X	A	T	B	B	A
Magnesium Sulfate	A	B	A	A	A	A	A	A	A	A	A	A	T	A	A	I	I	X	A	T	A	A	B
Maleic Acid	X	I	X	I	X	X	X	I	I	I	A	B	T	A	A	B	X	X	A	T	I	X	I
Malic Acid	I	I	A	I	A	A	I	A	B	B	B	I	T	A	A	B	X	A	I	T	I	I	I
Manganese Sulfate	A	A	A	A	X	A	A	A	I	I	A	A	T	I	A	I	I	I	I	T	A	A	A
Manganese Sulfide	A	A	A	A	X	A	A	A	I	I	A	A	T	I	I	I	I	I	I	T	A	A	A
Manganese Sulfite	A	A	A	A	X	A	A	A	I	I	A	A	T	I	I	I	I	I	I	T	A	A	A
Mesityl Oxide	X	X	I	X	X	X	B	I	I	I	A	A	T	I	A	I	I	I	I	T	X	X	X
Methallyl Alcohol	A	A	I	B	A	A	A	A	I	I	A	A	T	I	I	I	I	I	I	T	B	A	A
Methanol	A	A	I	X	A	A	A	A	A	A	A	A	T	A	A	I	I	A	A	T	X	A	A
Methyl (Wood) Alcohol	A	A	I	X	A	A	A	B	B	A	A	A	T	I	A	I	I	I	I	T	X	A	A
Methyl Acetate	X	A	X	X	X	B	A	X	X	X	A	A	T	I	A	I	I	I	I	T	X	X	A
Methyl Acetoacetate	X	I	I	X	X	X	B	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Methyl Acetone	No Hose is Recommended For This Application																						
Methyl Amyl Acetate	X	X	I	X	X	B	A	X	X	X	B	A	A	I	I	I	I	I	I	A	X	X	X
Methyl Amyl Alcohol	A	A	I	B	A	A	A	A	I	I	A	A	A	I	I	I	I	I	I	A	B	A	A
Methyl Amyl Carbinol	A	A	I	B	A	A	A	I	I	I	A	A	A	I	I	I	I	I	I	A	B	A	A
Methyl Amyl Ketone	X	I	I	X	X	X	B	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Methyl Benzene	X	X	I	A	X	X	X	X	I	X	A	A	A	I	A	A	A	I	I	A	A	X	X
Methyl Butanol	A	I	I	B	A	A	A	B	I	X	A	A	A	I	A	I	A	I	I	A	B	A	I
Methyl Butanone	X	B	I	X	X	X	B	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	B
Methyl Butyl Ketone	X	I	X	X	X	X	B	X	I	I	A	A	A	I	A	B	I	I	I	A	X	X	I
Methyl Carbitol	X	I	I	I	X	A	A	I	I	I	A	A	A	I	I	I	I	I	I	A	I	X	I
Methyl Cellosolve	X	A	X	I	X	A	A	B	I	I	A	A	A	I	A	B	A	I	A	A	I	X	A
Methyl Chloride	No Hose is Recommended For This Application																						
Methyl Cyclohexane	X	X	X	B	X	X	X	I	I	I	A	B	A	I	I	I	I	I	I	A	B	X	X
Methyl Ethyl Ketone (M.E.K.)	X	X	I	X	X	X	X	I	I	I	A	A	A	I	X	X	X	A	X	A	X	X	X
Methyl Hexanol	A	A	A	A	B	A	A	I	I	I	A	A	A	I	I	I	I	I	I	A	A	A	A
Methyl Hexanone	X	I	I	X	X	X	B	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Methyl Hexyl Ketone	X	I	X	X	X	X	B	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Methyl Isobutyl Carbinol	A	A	B	B	A	A	A	I	I	I	A	A	A	I	B	I	I	I		A	B	A	A
Methyl Isobutyl Ketone (MIBK)	X	X	X	X	X	X	X	I	I	I	A	A	A	I	X	X	X	A	X	A	X	X	X
Methyl Isopropyl Ketone	X	B	X	X	X	X	B	X	I	I	A	A	A	I	A	I	I	A	I	A	X	X	B
Methyl Normal Amyl Ketone	X	I	I	X	X	X	B	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Methyl Propyl Carbinol	A	A	I	B	A	A	A	I	I	I	A	A	A	I	I	I	I	I	I	A	B	A	A
Methyl Propyl Ether	X	X	X	I	X	B	X	I	I	I	A	A	A	I	I	I	I	I	I	A	I	X	X
Methyl Propyl Ketone	X	I	X	X	X	X	B	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
MTBE 100% Concentrate	X	X	I	X	X	X	X	I	I	I	X	A	I	I	I	I	I	I	I	I	X	X	X
Methylallyl Acetate	X	A	I	X	X	B	A	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	A
Methylallyl Chloride	X	I	I	X	X	X	X	X	X	X	A	B	A	I	I	I	I	I	I	A	X	X	I
Methyldiethanolamine	A	X	I	X	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	X	A	X
Methylene Bromide	X	X	X	B	X	X	X	X	X	I	B	B	A	I	I	I	I	I	I	A	B	X	X
Methylene Chloride	No Hose is Recommended For This Application																						
Metribuzin	I	A	I	I	I	I	I	I	I	I	A	I	A	I	I	I	I	I	I	A	I	I	A
MIBK	X	X	I	X	X	X	X	X	I	X	A	A	A	I	X	X	X	I	I	A	X	X	X
Mineral Spirits	A	X	X	B	X	X	X	B	I	I	A	A	A	I	A	A	I	I	I	A	B	A	X
Monochloroacetic Acid	X	X	I	I	B	X	X	I	I	I	A	A	A	I	A	X	X	I	I	A	I	X	X
Monochlorobenzene	X	X	X	A	X	X	X	X	X	X	B	B	A	I	A	B	B	I	I	A	A	X	X
Monochlorodifluoromethane	X	I	X	X	X	X	X	I	I	I	I	I	A	I	A	I	I	I	I	A	X	X	I
Monoethanol Amine	B	B	I	I	B	X	A	I	I	I	A	A	A	I	A	B	I	I	I	A	I	B	B
Monoethyl Amine	No Hose is Recommended For This Application																						
Muriatic Acid	X	X	I	I	A	X	X	I	I	I	A	A	A	I	X	X	X	X	A	A	I	X	X
N/Methylpyrrolidone	X	X	I	X	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	X
Naphtha	A	X	X	A	X	X	X	B	B	X	A	A	A	I	A	A	I	I	I	A	A	A	X
Naphthalene	X	X	I	A	X	X	X	X	B	X	A	A	A	I	A	B	I	A	A	A	A	X	X
Natural Gas	No Hose is Recommended For This Application																						
Neohexane	A	X	I	A	X	X	X	I	I	I	A	A	A	I	A	A	I	I	I	A	A	A	X
Neu-Tri	X	X	I	A	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Nickel Chloride	A	A	A	A	A	A	A	A	A	B	A	A	A	A	B	X	X	X	A	A	A	A	A
Nickel Nitrate	A	A	A	A	A	A	A	A	A	B	A	A	A	I	B	X	X	I	I	A	A	A	A

CHEMICAL RESISTANCE GUIDE @ 20°C/70°F

RATING DEFINITIONS A = CONTINUOUS SERVICE B = INTERMITTENT USE I = INSUFFICIENT DATA X = DO NOT USE

CHEMICAL RESISTANCE GUIDE	HOSE MATERIAL													COUPLING MATERIAL						GASKET MATERIAL			
	NITIRLE	EPDM	SBR	VITON	NATURAL	HYPALON	BUTYL	PVC	TPU	TPR	UHWMPE	XLPE	TEFLON	304SS	316SS	ALUMINUM	BRASS	NYLON	POLYPROPYLENE	TEFLON	VITON	BUNA	EPDM
Nickel Sulfate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	X	X	X	A	A	A	A	A
Nitric Acid 25%	X	X	I	X	X	X	B	I	I	I	B	B	A	I	A	X	X	I	I	A	X	X	X
Nitric Acid 37%	X	X	I	X	X	X	X	I	I	I	X	X	A	I	A	X	X	I	I	A	X	X	X
Nitric Acid 40%-60%	X	X	I	X	X	X	X	I	I	I	X	X	A	I	A	X	X	I	I	A	X	X	X
Nitric Acid 70%	X	X	I	X	X	X	X	I	I	I	X	X	A	I	B	X	X	I	I	A	X	X	X
Nitro Benzene	X	X	I	B	X	X	X	X	X	X	A	A	A	I	A	B	X	A	A	A	B	X	X
Nitrogen Gas	A	A	A	A	A	A	A	A	A	A	A	A	A	I	A	I	I	I	I	A	A	A	A
Nitrous Oxide	A	A	A	A	A	A	A	A	A	B	A	A	A	I	A	I	X	I	I	A	A	A	A
Nonenes	A	X	I	A	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	A	A	X
Octadecanoic Acid	A	B	X	I	X	X	B	I	I	I	A	A	A	I	A	B	A	I	I	A	I	A	B
Octane	A	X	X	A	X	X	X	I	I	I	B	B	A	I	B	I	B	I	I	A	A	A	X
Octanol	A	X	I	B	A	A	A	A	I	B	A	A	A	I	A	I	I	I	I	A	B	A	X
Octyl Acetate	X	I	X	X	X	A	A	X	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Octyl Alcohol	A	X	I	B	A	A	A	I	I	I	A	A	A	A	A	I	I	A	I	A	B	A	X
Octyl Aldehyde	X	I	I	X	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Octyl Amine	X	I	B	X	X	X	B	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Octyl Carbinol	A	A	A	B	A	A	A	I	I	I	A	A	A	I	I	I	I	I	I	A	B	A	A
Octylene Glycol	A	A	A	A	A	A	A	I	I	I	A	A	A	I	I	I	I	I	I	A	A	A	A
Oil Petroleum	A	X	I	A	X	X	X	B	A	I	B	A	A	I	A	A	X	I	I	A	A	A	X
Oleic Acid	A	X	X	I	X	X	B	B	B	B	A	A	A	A	A	B	X	A	X	A	I	A	X
Oleum	X	X	I	X	X	X	X	X	X	X	X	X	A	I	I	X	X	X	X	A	X	X	X
Organic Fatty Acids	A	X	I	X	X	X	X	I	I	I	A	A	A	I	A	I	I	I	I	A	X	A	X
Orthodichlorobenzene	X	X	X	A	X	X	X	X	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Orthodichlorobenzol	X	X	I	A	X	X	X	X	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Orthoxylene	X	X	I	A	X	X	X	I	I	I	B	A	A	I	I	I	I	I	I	A	A	X	X
Oxalic Acid	X	B	B	I	X	X	A	A	A	A	A	I	A	I	A	B	X	X	A	A	I	X	B
Oxygen	No Hose is Recommended For This Application																						
Ozone	X	A	B	I	X	B	B	B	B	B	A	I	A	I	I	I	I	I	I	A	I	X	A
Palmitic Acid	A	B	X	I	X	B	A	B	B	b	A	B	A	I	A	I	X	X	A	A	I	A	B
Papermakers Alum	A	A	I	A	A	A	A	A	I	I	A	A	A	I	I	I	I	I	I	A	A	A	A
Paradichlorobenzol	X	X	I	A	X	X	X	X	I	I	B	A	A	I	I	I	I	I	I	A	A	X	X
Paraffin	A	X	X	A	X	X	B	A	B	I	A	X	A	A	A	A	A	A	A	A	A	A	X
Paraldehyde	X	B	I	X	X	X	B	I	I	I	A	A	A	I	A	A	I	I	I	A	X	X	B
Paraxylene	X	X	I	A	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Pelargonic Acid	A	I	I	I	X	X	A	I	I	I	A	A	A	I	I	I	I	I	I	A	I	A	I
Pentachloroethane	X	X	I	A	X	X	X	I	I	I	A	A	A	I	A	B	X	I	I	A	A	X	X
Pentane	No Hose is Recommended For This Application																						
Pentanol	A	A	I	B	A	A	A	A	I	I	A	A	A	I	I	I	I	I	I	A	B	A	A
Pentanone	X	I	I	X	X	X	B	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Perchloroethylene	X	X	X	A	X	X	X	X	X	X	B	A	A	A	A	B	X	X	X	A	A	X	X
Petroleum - Crude	A	X	I	A	X	X	X	B	A	X	A	A	A	I	A	A	X	I	I	A	A	A	X
Petroleum Ether (Ligroin)	A	X	I	A	X	X	X	B	A	X	A	A	A	I	A	A	I	I	I	A	A	A	X
Petroleum Oils	A	X	X	A	X	X	X	B	A	X	A	A	A	I	A	A	X	I	I	A	A	A	X
Phenol	X	X	B	A	X	X	A	X	X	X	A	A	A	I	A	B	B	I	I	A	A	X	X
Phenolsulfonic Acid	X	I	X	X	X	X	X	X	I	I	X	B	A	I	B	I	I	I	I	A	X	X	I
Phenyl Chloride	X	X	X	A	X	X	X	I	I	X	A	A	A	I	A	B	I	I	I	A	A	X	X
Phosphoric Acid 10%	A	A	I	X	A	A	A	A	A	A	A	A	A	I	A	X	X	X	A	A	X	A	A
Phosphoric Acid 10-85%	X	A	I	X	B	A	A	I	I	I	A	A	A	I	A	X	I	X	A	A	X	X	A
Pine Oil	X	X	X	A	X	X	X	I	I	I	A	A	A	A	A	I	X	I	I	A	A	X	X
Pinene	B	X	X	A	X	X	X	I	I	I	A	A	A	I	B	I	I	I	I	A	A	B	X
Polyethylene Glycol	A	A	A	A	A	A	A	B	B	B	A	A	A	I	I	I	I	I	I	A	A	A	A
Polypropylene Glycol	A	A	A	A	A	A	A	B	B	B	A	A	A	I	I	I	I	A	A	A	A	A	A
Potassium Acetate	X	B	X	X	X	B	A	A	I	B	A	A	A	I	A	X	X	A	A	A	X	X	B
Potassium Bisulfate	A	A	A	A	A	A	A	A	A	B	A	A	A	I	A	I	X	I	I	A	A	A	A
Potassium Bisulfite	A	A	A	A	A	A	A	A	A	B	A	A	A	I	I	I	I	I	I	A	A	A	A
Potassium Carbonate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	X	X	A	A	A	A	A	A
Potassium Chloride	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	X	X	A	A	A	A	A	A
Potassium Chromate	I	I	X	I	I	X	A	A	A	B	B	B	A	I	B	I	I	X	A	A	I	I	I
Potassium Dichromate	I	I	X	I	I	X	A	A	A	B	B	B	A	A	A	B	X	X	A	A	I	I	I
Potassium Hydrate	B	B	A	X	A	B	A	A	I	B	A	A	A	I	A	X	I	I	I	A	X	B	B
Potassium Hydroxide	B	B	A	X	A	B	A	A	B	B	B	A	A	I	A	X	X	X	A	A	X	B	B

CHEMICAL RESISTANCE GUIDE @ 20°C/70°F

RATING DEFINITIONS A = CONTINUOUS SERVICE B = INTERMITTENT USE I = INSUFFICIENT DATA X = DO NOT USE

CHEMICAL RESISTANCE GUIDE	HOSE MATERIAL													COUPLING MATERIAL						GASKET MATERIAL			
	NITIRLE	EPDM	SBR	VITON	NATURAL	HYPALON	BUTYL	PVC	TPU	TPR	UHWMPE	XLPE	TEFLON	304SS	316SS	ALUMINUM	BRASS	NYLON	POLYPROPYLENE	TEFLON	VITON	BUNA	EPDM
Potassium Nitrate	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A	B	A	X	A	A	A	A	A
Potassium Permanganate	B	I	X	A	A	A	A	I	I	I	A	A	A	A	A	I	I	X	A	A	A	B	I
Potassium Silicate	A	A	A	A	A	A	A	A	I	B	A	A	A	I	A	I	I	I	I	A	A	A	A
Potassium Sulfate	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A	B	A	A	A	A	A	A	A
Potassium Sulfide	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A	X	X	I	I	A	A	A	A
Potassium Sulfite	A	A	A	A	A	A	A	A	A	B	A	A	A	I	A	I	X	I	I	A	A	A	A
Propane Gas											N/R						A	X	X				
Propanediol	A	A	A	A	A	A	A	A	I	B	A	A	A	I	I	I	I	I	I	A	A	A	A
Propanol	A	A	I	B	A	A	A	A	I	B	A	A	A	I	A	I	I	I	I	A	B	A	A
Propyl Acetate	X	X	X	X	X	B	A	X	I	I	A	A	A	I	A	I	I	I	I	A	X	X	X
Propyl Alcohol	A	A	I	B	A	A	A	A	A	B	A	A	A	A	A	I	I	A	A	A	B	A	A
Propyl Aldehyde	X	I	X	X	X	X	B	I	I	I	A	A	A	I	I	I	I	I	I	A	X	X	I
Propyl Chloride	No Hose is Recommended For This Application																						
Propylene Diamine	B	I	A	I	B	X	A	I	I	I	A	A	A	I	I	I	I	I	I	A	I	B	I
Propylene Dichloride	X	X	X	B	X	X	X	X	X	X	B	B	A	I	A	X	I	I	I	A	B	X	X
Propylene Glycol	A	A	A	A	A	A	A	I	A	A	A	A	A	A	A	I	I	A	I	A	A	A	A
Propylene Tetramer	A	X	I	X	X	X	X	I	I	I	A	A	I	I	I	I	I	I	I	I	X	A	X
Sea Water	A	A	I	A	A	A	A	A	A	A	A	A	A	A	A	I	X	A	A	A	A	A	A
Sewage	A	A	B	I	X	A	X	I	I	I	A	A	A	I	A	X	I	I	I	A	I	A	A
Silicate of Soda	A	A	I	A	A	A	A	B	I	A	A	A	A	I	A	X	X	I	I	A	A	A	A
Soap	A	X	I	X	X	X	X	I	I	I	A	X	A	I	A	X	X	A	A	A	X	A	X
Soda Ash	A	A	I	A	A	A	A	A	A	A	A	A	A	I	A	X	I	I	I	A	A	A	A
Soda, Caustic	B	A	A	X	A	B	A	B	A	A	A	A	A	I	A	X	X	I	I	A	X	B	A
Soda, Lime	B	A	A	X	A	B	A	B	I	I	A	A	A	I	I	I	I	I	I	A	X	B	A
Soda, Niter	A	B	I	A	A	A	A	B	I	A	A	A	A	I	A	B	I	I	I	A	A	A	B
Sodium Acetate	X	B	X	X	X	A	A	B	A	B	A	B	A	A	A	I	A	A	A	A	X	X	B
Sodium Aluminate	A	A	A	A	A	A	A	A	I	B	A	A	A	I	A	I	I	A	I	A	A	A	A
Sodium Bisulfate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	X	X	X	A	A	A	A	A
Sodium Bisulfite	A	A	A	A	A	A	A	A	I	A	A	A	A	I	A	X	X	I	I	A	A	A	A
Sodium Carbonate	A	A	A	A	A	A	A	A	A	A	A	A	A	I	A	X	I	A	A	A	A	A	A
Sodium Chloride (Brine)	A	A	I	A	A	A	A	A	A	A	A	A	A	I	A	X	I	I	I	A	A	A	A
Sodium Chromate	I	I	X	I	I	X	A	A	I	I	X	X	A	A	A	A	A	A	A	A	I	I	I
Sodium Dichromate	I	A	X	I	I	X	A	A	A	B	A	A	A	I	A	I	X	X	A	A	I	I	A
Sodium Hydrate	B	A	I	X	A	B	A	A	I	I	A	A	A	I	B	X	X	I	I	A	X	B	A
Sodium Hydrochlorite (20%)	X	I	I	B	X	X	B	I	I	I	A	B	A	I	I	I	I	I	I	A	B	X	I
Sodium Hydrosulfide	A	X	I	X	X	X	X	I	I	I	A	A	A	I	I	B	I	I	I	A	X	A	X
Sodium Hydroxide (50%)	B	A	I	X	A	B	A	I	I	I	A	A	A	I	A	X	X	X	A	A	X	B	A
Sodium Hypochlorite	X	A	X	B	X	X	B	A	A	A	B	X	A	I	X	X	X	X	A	A	B	X	A
Sodium Nitrate	A	B	A	A	A	A	A	A	A	A	A	A	A	A	A	B	I	A	A	A	A	A	B
Sodium Silicate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	X	X	A	A	A	A	A	A
Sodium Sulfate	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	X	A	A	A	A	A	A
Sodium Sulfide	A	A	A	A	A	A	A	A	A	A	A	A	A	B	A	X	X	X	A	A	A	A	A
Sodium Sulfite	A	B	A	A	A	A	A	A	A	A	A	A	A	I	A	I	I	I	I	A	A	A	B
Sodium Sulphydrate	A	X	I	X	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	X	A	X
Sodium Thiosulfate	A	A	A	A	A	A	A	A	A	A	A	A	A	I	A	I	X	A	A	A	A	A	A
Stannic Chloride	A	A	A	I	A	A	A	A	A	B	A	A	A	X	X	X	X	X	A	A	I	A	A
Stannic Sulfide	A	A	A	I	A	A	A	A	I	I	A	A	A	I	I	I	I	I	I	A	I	A	A
Stannous Chloride	A	B	A	I	A	A	A	A	I	I	A	A	A	X	A	X	X	X	X	A	I	A	B
Stannous Sulfide	A	A	A	I	A	A	A	A	I	I	A	A	A	I	I	I	I	I	I	A	I	A	A
Stearic Acid	A	B	X	I	X	X	B	A	A	A	A	A	A	A	A	B	A	A	A	A	I	A	B
Stoddards Solvent	A	X	X	A	X	X	X	I	I	I	A	A	A	I	A	A	I	X	A	A	A	A	X
Styrene	X	X	X	A	X	X	X	I	I	I	B	X	A	A	A	I	I	I	I	A	A	X	X
Sulfamic Acid (>10%)	B	I	I	I	B	B	A	I	I	I	X	I	A	I	I	I	I	I	I	A	I	B	I
Sulfonic Acid	X	I	X	X	X	X	X	B	I	I	B	B	A	I	I	I	I	I	I	A	X	X	I
Sulfur Dioxide (Liquid)	I	I	I	X	I	B	B	X	X	X	B	X	A	I	A	I	I	I	I	A	X	I	I
Sulfuric Acid 25%	X	A	I	I	B	B	A	A	A	A	A	A	A	I	I	X	X	I	I	A	I	X	A
Sulfuric Acid 93%	X	B	I	B	X	B	X	I	I	I	X	A	A	I	I	X	X	I	I	A	B	X	B
Sulfuric Acid 93-98%	X	X	I	B	X	X	X	I	I	I	X	I	A	I	I	X	X	I	I	A	B	X	X
Sulfuric Acid Fuming	X	X	I	X	X	X	X	X	X	X	X	X	A	I	I	X	X	I	I	A	X	X	X
Sulfurous Acid 10%	X	A	I	I	A	A	A	B	B	A	A	A	A	I	I	X	X	I	I	A	I	X	A
Sulfurous Acid 10-75%	X	A	I	I	A	A	A	X	X	X	A	A	I	I	I	X	X	I	I	I	I	X	A

CHEMICAL RESISTANCE GUIDE @ 20°C/70°F

RATING DEFINITIONS A = CONTINUOUS SERVICE B = INTERMITTENT USE I = INSUFFICIENT DATA X = DO NOT USE

CHEMICAL RESISTANCE GUIDE	HOSE MATERIAL													COUPLING MATERIAL						GASKET MATERIAL			
	NITIRLE	EPDM	SBR	VITON	NATURAL	HYPALON	BUTYL	PVC	TPU	TPR	UHWMPE	XLPE	TEFLON	304SS	316SS	ALUMINUM	BRASS	NYLON	POLYPROPYLENE	TEFLON	VITON	BUNA	EPDM
Sulphonate	A	X	I	X	X	X	X	I	I	I	I	X	A	I	I	I	I	I	I	A	X	A	X
Tall Oil	A	X	X	A	X	X	X	I	I	I	A	I	A	I	A	X	X	I	I	A	A	A	X
Tallow	A	X	X	I	X	X	X	I	I	I	A	I	A	A	A	I	A	A	I	A	I	A	X
Tannic Acid	B	X	A	I	A	A	A	B	B	A	A	I	A	A	A	X	I	X	A	A	I	B	X
Tar	Special Hose Required																						
Tartaric Acid	A	A	A	I	A	A	A	A	A	A	A	A	A	A	A	I	A	A	A	A	I	A	A
Tergitol	I	I	I	I	I	I	I	I	I	I	X	I	A	I	I	I	I	I	I	A	I	I	I
Tertiary Butyl Alcohol	A	A	A	B	A	A	A	B	B	I	A	A	A	I	I	I	I	I	I	A	B	A	A
Tetrachlorobenzene	X	X	X	B	X	X	X	X	I	I	B	B	A	I	I	I	I	I	I	A	B	X	X
Tetrachloroethane	X	X	X	A	X	X	X	X	I	X	A	X	A	I	A	X	X	I	I	A	A	X	X
Tetrachloroethylene	X	X	X	A	X	X	X	X	I	X	A	A	A	I	A	B	X	I	I	A	A	X	X
Tetrachloromethane	X	X	X	A	X	X	X	X	I	X	A	X	A	I	A	I	I	I	I	A	A	X	X
Tetrachloronaphthalene	X	X	I	B	X	X	X	X	I	X	B	X	A	I	I	I	I	I	I	A	B	X	X
Tetrachloronaphthalene	X	X	I	B	X	X	X	X	I	X	B	X	A	I	I	I	I	I	I	A	B	X	X
Tetradecanol	A	A	I	B	A	A	A	I	I	I	A	A	A	I	I	I	I	I	I	A	B	A	A
Tetraethylene Glycol	A	A	A	A	A	A	A	B	I	I	A	A	A	I	I	I	I	I	I	A	A	A	A
Tetraethylene Lead	X	X	I	A	X	X	X	I	I	I	X	X	A	I	I	I	I	I	I	A	A	X	X
Tetrahydrofuran	X	X	I	X	X	X	X	X	X	X	B	B	A	A	A	B	X	A	X	A	X	X	X
THF	X	X	I	X	X	X	X	X	I	X	B	B	A	I	A	B	X	I	I	A	X	X	X
Thionyl Chloride	I	I	X	I	I	I	I	I	I	I	X	I	A	I	X	X	X	I	I	A	I	I	I
Tin Chloride	A	A	A	I	A	A	A	B	B	B	A	A	A	I	X	X	X	I	I	A	I	A	A
Tin Tetrachloride	A	A	A	I	A	A	A	B	B	B	B	A	A	I	X	X	X	I	I	A	I	A	A
Titanium Tetrachloride	B	X	X	A	X	X	X	I	I	I	B	A	A	I	B	X	X	I	I	A	A	B	X
Toluene	X	X	I	A	X	X	X	X	X	X	A	B	A	I	A	A	A	A	X	A	A	X	X
Toluidine	I	I	I	I	I	I	I	X	I	I	X	I	A	I	I	I	I	I	I	A	I	I	I
Toluol	X	X	I	A	X	X	X	X	X	X	A	A	A	I	A	A	A	I	I	A	A	X	X
Transformer Oil	I	I	I	I	I	I	I	I	I	I	X	I	A	I	A	I	I	I	I	A	I	I	I
Transmission Oil "A"	A	X	I	A	X	X	X	B	A	I	B	I	A	I	A	A	A	I	I	A	A	A	X
Tributoxy Ethysulphate	X	A	I	A	X	X	A	I	I	I	I	X	I	I	I	I	I	I	I	I	A	X	A
Tributyl Amine	B	I	A	I	B	X	A	I	I	I	A	A	A	I	I	I	I	I	I	A	I	B	I
Tributyl Phosphate	X	X	X	X	X	X	A	X	X	X	A	A	A	I	A	I	X	I	I	A	X	X	X
Trichlorobenzene	X	X	X	B	X	X	X	X	X	X	B	B	A	I	I	A	I	I	I	A	B	X	X
Trichloroethane	X	X	X	A	X	X	X	X	I	X	A	X	A	I	A	I	I	I	I	A	A	X	X
Trichloroethylene	X	X	X	A	X	X	X	I	I	I	X	X	A	I	A	I	I	A	X	A	A	X	X
Trichloropropane	X	X	X	A	X	X	X	I	I	X	A	A	A	I	A	X	I	I	I	A	A	X	X
Tricresylphosphate	X	A	I	A	X	X	A	I	I	I	A	A	A	I	A	X	I	I	I	A	A	X	A
Tridecanol	A	A	I	B	A	A	A	I	I	I	A	A	A	I	I	I	I	I	I	A	B	A	A
Triethanolamine	B	A	I	X	B	X	A	B	B	I	A	A	A	I	A	I	X	A	X	A	X	B	A
Triethylamine	B	I	A	I	B	X	A	I	I	I	A	A	A	I	A	I	I	A	X	A	I	B	I
Triethylene Glycol	A	I	A	I	A	A	A	B	I	B	A	A	A	I	A	A	I	I	I	A	I	A	I
Trifluralin (Trefalin)	X	X	I	A	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Triphenyl Phosphate	X	I	X	I	X	X	A	X	B	I	A	A	A	I	A	I	I	I	I	A	I	X	I
Tripolyphosphate	I	I	I	I	I	I	I	I	I	I	X	I	A	I	I	I	I	I	I	A	I	I	I
Trisodium Phosphate	A	A	A	A	A	A	A	B	B	A	A	A	A	I	A	X	I	A	A	A	A	A	A
Turpentine	A	X	X	A	X	X	X	B	B	X	A	A	A	A	A	A	A	A	A	A	A	A	X
Undecanol	A	A	A	B	A	A	A	A	I	I	B	A	A	I	I	I	I	I	I	A	B	A	A
Urea	X	I	B	I	I	I	A	A	A	A	A	A	A	I	A	B	I	A	A	A	I	X	I
V.M. & P. Naptha	A	X	I	A	X	X	X	B	I	I	A	A	A	I	I	I	I	I	I	A	A	A	X
Vinyl Acetate	X	X	X	X	X	B	A	X	I	X	A	A	A	I	A	I	X	I	I	A	X	X	X
Vinyl Benzene	X	X	X	A	X	X	X	X	I	X	A	A	A	I	A	I	I	I	I	A	A	X	X
Vinyl Chloride	No Hose is Recommended For This Application																						
Vinyl Ether	No Hose is Recommended For This Application																						
Vinyl Toluene	X	X	X	A	X	X	X	I	I	I	A	A	A	I	I	I	I	I	I	A	A	X	X
Vinyl Arichloride	X	X	X	A	X	X	X	I	I	I	A	A	A	I	A	I	I	I	I	A	A	X	X
WaAer	A	A	I	A	A	A	A	A	A	A	A	A	A	I	A	A	A	A	A	A	A	A	A
Wax	A	X	I	X	X	X	X	I	I	I	A	X	A	I	A	I	I	I	I	A	X	A	X
WhiAe Oil	A	X	X	I	X	X	X	I	I	I	A	I	A	I	I	I	I	I	I	A	I	A	X
Wood Alcohol	A	A	I	X	A	A	A	B	B	A	A	A	A	I	A	I	I	I	I	A	X	A	A
Xylene (Xylol)	X	X	X	A	X	X	X	X	X	X	X	A	A	I	A	I	I	A	X	A	A	X	X
Xylidine	X	X	X	X	X	X	X	X	I	I	B	B	A	I	B	A	I	I	I	A	X	X	X
Zinc CarbonaAe	A	A	A	A	A	A	A	A	I	B	A	A	A	I	B	B	X	I	I	A	A	A	A

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Zinc Chloride	A	A	A	A	A	A	A	A	A	B	A	A	A	X	A	X	X	A	A	A	A	A	A
Zinc ChromaAe	I	X	B	I	I	X	A	A	A	I	A	B	A	I	I	I	I	I	I	A	I	I	X
Zinc PhosphaAe	A	A	I	X	X	X	X	I	I	I	A	X	A	I	I	I	I	I	I	A	X	A	A
Zinc SulfaAe	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A	X	X	X	A	A	A	A	A