Chemical resistance

Charts

Please refer to **Eaton PowerSource** for the most up-to-date Fluid Compatibility information.

Chemical compatibility chart

WARNING – This information provides guidelines for the safe use of Eaton Industrial Hose and Tubing. The information shown here was gathered through testing, and is accurate for controlled conditions (at 70°F unless otherwise noted). Factors such as concentration, fluid contamination, and extreme temperatures may affect these performance specifications. Contact Eaton for recommendation and assistance.

WARNING – Selection of hose: Selection of the proper hose for the application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to selection of the hose for your application can result in serious bodily injury or property damage from spraying fluids or flying projectiles. In order to avoid serious bodily injury or property damage resulting from selection of the wrong hose, you should carefully review the information in this catalog.

WARNING – Selection of hose fittings: Selection of the proper fittings for the hose and application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to the selection of the fittings for your application can result in serious bodily injury or property damage resulting from spraying fluids or flying projectiles. In order to avoid serious bodily injury or property damage resulting from selection of the wrong fitting, you should carefully review the information in this catalog.

WARNING – Chemical resistance properties: The following list of chemicals is offered as a guide to the chemical resistance properties of the tube material of the hoses shown. It should be used as a guide only, as the degree of resistance of any elastomer to a particular fluid depends upon such variables as temperature, concentration, pressure conditions, velocity of flow, duration of exposure, aeration, stability of the fluid, etc.

Therefore, when in doubt, it is advisable not to use the hose. If this is not practical, tests should be devised that simulate actual service conditions as nearly as possible. Eaton offers additional technical assistance.

Fluid	Hose and Tubing material																			Metals		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/ SBR	Hytrel	Polyurethane	CPE	EVA	LLDPE	Nylon 11	PVC / PU Blends	Brass	Steel	316 Stainless
Acetaldehyde	G	G	X	X	X	X	G	G	F	G	F	X	X	X	—	G	X	G	X	X	X	G
Acetic Acid (Concentrated)	G	G	X	X	X	X	G	G	X	G	X	X	X	X	G	X	X	X	X	X	X	G
Acetic Acid (Dilute)	G	G	F	X	X	F	G	G	X	G	F	X	G	X	G	G	G	F	X	X	X	G
Acetic Anhydride	G	G	X	G	G	X	G	G	X	G	F	X	X	X	G	X	X	X	X	X	F	F
Acetone	G	G	X	X	X	X	G	G	F	G	F	X	F	X	G	X	G	G	X	G	G	G
Acrylonitrile	G	G	G	X	X	X	G	G	—	X	X	X	—	X	G	—	—	G	X	—	G	G
Air	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
Alcohols:																						
Amyl Alc.	G	G	X	G	G	F	G	G	G	G	G	G	G	X	G	G	G	G	F	G	F	F
Butyl Alc., Butanol	G	G	X	G	G	G	G	G	G	G	G	G	—	X	G	G	G	G	X	G	G	G
Ethyl Alc., Ethanol	G	G	F	G	G	G	G	G	G	G	G	G	G	X	G	F	G	G	G	G	F	G
Isopropyl Alcohol Isopropanol	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G	G	G	G	G
Methyl Alcohol Methanol	G	G	X	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G	F	G	F	G

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Chemical resistance

Charts

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Aluminum Chloride	G	G	G	G	G	G	G	G	X	G	G	G	G	G	G	G	G	X	G	X	X	F
Aluminum Fluoride	G	G	G	G	G	F	G	G	X	G	G	G	—	G	X	G	G	X	G	X	X	X
Aluminum Hydroxide	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	G	G	G	G	X	F	G
Aluminum Nitrate	G	G	G	G	G	G	G	G	F	G	G	G	—	X	—	G	G	G	G	X	X	G
Aluminum Sulfate	G	G	G	G	G	G	G	G	F	G	G	G	G	G	G	G	G	G	G	X	X	G
Alums	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G	F	G	X	X	F
Ammonia, Anhydrous	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	F	G
Ammonia Solution (10%)	G	G	G	G	G	F	G	G	X	G	G	F	X	X	X	—	G	G	—	X	G	G
Ammonium Chloride	G	G	G	G	G	G	G	G	X	G	G	G	G	F	G	G	G	X	G	X	G	F
Ammonium Hydroxide	G	G	X	F	F	F	G	G	X	G	G	F	X	X	G	G	G	G	F	X	F	G
Ammonium Nitrate	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G	G	—	—	G
Ammonium Phosphate	G	G	F	G	G	G	G	G	G	G	G	G	G	F	G	G	G	G	G	X	X	G
Ammonium Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	X	X	F
Amyl Acetate	G	G	X	X	X	X	G	G	G	F	X	X	F	X	X	X	X	G	X	G	F	G
Amyl Alcohol	G	G	X	G	G	F	G	G	G	G	G	G	G	X	G	G	G	G	X	G	F	F
Aniline	G	G	X	X	X	X	G	G	X	X	X	X	X	X	X	X	X	X	X	X	G	G
Aniline Dyes	G	G	X	F	F	F	G	G	X	G	F	F	X	X	X	X	X	X	X	X	X	F
Animal Oils and Fats	G	G	G	G	G	X	G	G	—	F	F	X	G	X	F	X	X	G	X	G	G	G
Anti—Freeze (Glycol Base)	G	G	G	G	G	G	G	G	—	G	G	G	G	X	G	G	F	G	G	G	G	G
Aqua Regia	X	X	X	X	X	X	G	F	X	X	X	X	X	X	X	X	X	X	F	—	X	X
Aromatic Hydrocarbons	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	—	G*	G	—	G	G	G
Asphalt Emulsion	X	X	X	G	X	X	G	G	—	X	X	X	G	X	F	X	—	G	F	G	G	G
Barium Chloride	G	G	G	G	G	G	G	G	—	G	G	G	G	G	G	G	G	G	G	X	F	G
Barium Hydroxide	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G	G	X	G	G
Barium Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	X	G	X	G	G	G	G	G	G	G
Barium Sulfide	G	G	G	G	G	G	G	G	—	G	G	G	X	G	G	G	G	X	G	X	X	G

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Chemical resistance

Charts

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Beet Sugar Liquors	G	G	G	G	G	G	G	G	G	X	G	G	—	X	G	G	G	G	—	X	G	G
Benzaldehyde	G	G	X	X	X	X	G	G	G	F	X	X	X	X	X	X	X	G	X	F	F	G
Benzene, Benzol	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	F	X	X	G	F	G	G	G
Benzoic Acid	G	G	X	X	X	G	G	G	X	X	X	X	X	X	G	G	G	X	G	F	X	F
Black Sulfate Liquor	G	F	X	F	F	G	G	G	X	G	F	X	G	X	X	G	G	X	G	X	G	G
Bleach Solution	F	F	F	X	X	X	G	G	X	G	F	X	F	F	G	G*	G	X	G	X	X	G
Borax Solution	G	G	G	F	F	G	G	G	—	G	G	G	G	G	G	G	G	G	G	G	G	G
Boric Acid	G	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G	X	X	G
Brake Fluid (Glycol Ether Base)	G	G	X	X	X	F	G	G	—	G	X	X	—	X	G	—	X	G	X	G	G	G
Brine	G	G	G	G	G	G	G	G	—	G	G	G	G	X	G	G	G	G	G	—	X	F
Bromine	X	X	X	X	X	X	G	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Butyl Acetate	G	G	X	X	X	X	G	G	—	F	X	X	F	X	F	—	X	G	X	G	G	G
Butyl Alcohol, Butanol	G	G	X	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G	F	G	G	G
Calcium Bisulfite	G	G	G	G	G	G	G	G	X	G	G	G	X	G	X	G	G	G	G	X	X	X
Calcium Chloride	G	G	G	G	G	G	G	G	X	G	G	G	G	G	G	G	G	G	G	X	F	F
Calcium Hydroxide	G	G	G	F	F	G	G	G	G	G	F	G	G	X	G	G	G	G	G	F	G	G
Calcium Hypochlorite	G	G	G	F	F	F	G	G	X	G	F	X	F	X	G	G	G	X	G	F	X	F
Cane Sugar Liquors	G	G	G	G	G	G	G	G	—	G	G	G	G	X	G	G	G	G	—	F	G	G
Carbon Dioxide (Dry)	G	G	G	G	G	G	G	G	G	G	G	F	G	G	G	G	G	G	G	G	G	G
Carbon Dioxide (Wet)	G	G	G	G	G	G	G	G	G	G	G	F	—	G	—	G	G	G	G	F	G	G
Carbon Disulfide (Bisulfide)	F	X	X	X	X	X	G	G	X	X	X	X	X	G	X	—	X	X	—	G	G	G
Carbon Monoxide (Hot)	—	—	X	F	F	F	G	G	X	F	G	X	G	F	G	G	X	X	G	X	F	G
Carbon Tetrachloride	G*	G*	X	X	X	X	G	G	G	X	X	X	F	X	X	—	X	G	X	G	G	G
Carbonic Acid	G	G	G	G	G	G	G	G	—	G	G	G	X	G	X	G	G	G	G	X	X	F
Castor Oil	G	G	G	G	G	F	G	G	—	F	G	X	F	F	G	X	X	G	G	G	G	G
Cellosolve Acetate	G	G	X	X	X	X	G	G	—	F	F	X	X	X	X	X	—	G	G	X	X	G
Chlorinated Solvents	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	—	X	F	X	G	G	F

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Chloroacetic Acid	G	G	X	X	X	X	G	G	X	F	X	X	X	X	X	X	X	X	F	X	X	F
Chloro-benzene	G*	G*	X	X	X	X	G	G	X	X	X	X	X	X	—	X	X	X	X	F	F	G
Chlorine Gas (Dry)	X	X	X	X	X	X	G	X	X	X	X	X	X	X	X	X	X	X	G	F	F	G
Chlorine Gas (Wet)	X	X	X	X	X	X	G	X	X	X	X	X	X	X	X	X	X	X	F	X	X	X
Chloroform	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	X	X	F	U	G	G	G
Chlorosul-fonic Acid	F*	F*	X	X	X	X	G	G	X	X	X	X	X	X	X	X	X	X	X	X	F	X
Chromic Acid (under 25%	G	X	F	X	X	X	G	G	X	G	G	X	X	X	X	G	F	X	G	X	X	G
Chromic Acid (25-40%)	G	X	X	X	X	X	G	G	X	G	G	X	X	X	X	F	X	X	F	X	X	F
Citric Acid	G	G	G	F	F	G	G	G	F	G	G	G	G	X	X	G	G	X	G	X	X	G
Coke Oven Gas	X	X	X	X	X	X	G	G	—	X	X	X	—	X	X	—	G	—	G	F	G	G
Copper Chloride	G	G	G	G	G	F	G	G	X	G	G	G	G	G	X	G	G	X	G	X	X	G
Copper Cyanide	G	G	G	G	G	F	G	G	G	G	G	G	—	G	—	G	G	G	G	X	X	G
Copper Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	X	X	G
Corn Syrup (Non-food)	G	G	G	G	G	F	G	G	—	G	F	F	G	G	—	G	G	G	G	—	G	G
Cottonseed Oil	G	G	F	G	G	X	G	G	—	F	F	X	G	G	G	G	G	G	G	G	G	G
Creosote	G	G	X	F	F	X	G	G	X	X	F	X	X	F	F	X	X	X	X	F	—	G
Cresol	G	G	X	X	X	X	G	G	X	X	X	X	X	X	G	X	X	X	—	—	G	G
Cyclohexanol	G	G	X	F	F	F	G	G	G	G	G	F	—	—	G	G	F	G	X	G	F	G
Dextrose (Food Grade)	G	X	X	X	X	X	G	G	X	X	X	X	X	X	X	G	G	X	—	—	—	G
Dichloro-benzene	G*	G*	X	X	X	X	G	G	—	X	X	X	X	X	X	X	X	G	X	—	—	G
Diesel Fuel	G	G	X	G	G	X	G	G	—	X	F	X	F	F	G	—	X	G	—	G	G	G
Diethanol-amine	G	G	X	F	X	X	G	G	—	G	X	F	X	X	—	—	—	G	—	X	G	G
Diethylene-triamine	G	G	X	F	X	X	G	G	X	G	X	F	—	X	—	—	G	X	—	—	—	—
Dowtherm A	—	—	X	X	X	X	G	G	X	X	X	X	X	—	X	X	X	X	X	X	F	G
Enamel (Solvent Base)	G	G	X	F	F	X	G	G	—	X	X	X	G	—	G	—	G	G	—	G	—	G
Ethanolamine	G	G	X	F	F	X	G	G	—	G	X	G	—	X	—	—	G	G	—	X	G	G
Ethers (Ethyl Ether)	G	G	X	X	X	X	G	G	—	X	X	X	X	X	G	X	X	G	X	G	G	G
Ethyl Alcohol	G	G	F	G	G	G	G	G	G	G	G	G	G	G	G	F	G	G	G	F	G	G

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Ethyl Acetate	G	G	X	X	X	X	G	G	G	G	X	X	F	X	F	F	G	G	X	G	G	G
Ethyl Acrylate	G	G	X	X	X	X	G	G	—	F	X	X	—	X	F	—	—	X	X	—	G	G
Ethyl Methacrylate	G	G	X	X	X	X	G	G	—	F	X	X	—	X	F	—	—	X	—	—	G	G
Ethylamine	G	G	X	X	X	X	G	G	X	F	X	X	—	X	—	—	G	X	—	G	—	G
Ethyl Cellulose	G	G	X	F	F	F	G	G	—	F	F	G	—	F	G	—	G	F	—	F	G	F
Ethyl Chloride	G*	G*	X	X	X	X	G	G	—	X	X	X	X	F	X	X	X	G	X	F	F	G
Ethylene-diamine	G	G	X	F	X	G	G	G	X	G	F	G	—	X	—	—	G	X	—	G	G	G
Ethylene Dibromide	G	G	X	X	X	X	G	G	—	X	X	X	—	X	—	—	—	F	—	—	—	—
Ethylene Dichloride	G*	G*	X	X	X	X	G	G	—	X	X	X	X	X	X	X	X	F	X	G	X	X
Ethylene Glycol	G	G	G	G	G	G	G	G	G	G	G	G	G	F	G	G	G	G	G	F	G	G
Ethylene Oxide	G	G	X	X	X	X	G	G	—	X	X	X	G	X	X	X	X	G	X	X	F	F
Fatty Acids	G	G	G	F	F	X	G	G	G	F	X	X	G	—	F	F	G	G	G	F	F	G
Ferric Chloride 5%	G	G	G	G	G	G	G	G	G	G	G	G	—	F	G	G	G	G	G	X	X	X
Ferric Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	G	G	G	X	X	F
Fertilizer Salts Solution	G	G	G	F	F	F	G	G	—	G	G	G	—	—	—	—	F	G	—	—	—	G
Formaldehyde	G	G	X	F	F	F	G	G	G	G	X	F	F	X	G	G	G	X	G	F	X	G
Formic Acid	G	G	X	F	F	F	G	G	X	G	X	X	X	X	G	G	G	X	—	F	X	G
Freon 12**	—	—	—	—	—	—	G	—	—	—	—	—	—	—	—	—	—	—	—	G	G	G
Freon 134a**	—	—	—	—	—	—	G	—	—	—	—	—	—	—	—	—	—	—	—	—	G	G
Fuel Oil	G	G	F	G	G	F	G	G	—	X	X	X	—	F	G	X	X	G	G	F	G	G
Furfural	G	G	X	X	X	X	G	G	X	F	F	X	—	—	F	X	X	X	X	F	G	G
Gasoline (Refined)	G	G	X	F	F	X	G	G	G	X	X	X	G	F	G	—	X	G	X	G	G	G
Gasoline (Unleaded)	G	G	X	G	G	X	G	G	G	X	F	X	X	X	G	—	X	G	F	G	G	G
Gasoline (10% Ethanol)	G	G	X	G	G	X	G	G	G	X	X	X	X	X	—	—	X	G	F	G	G	G
Gasoline (10% Methanol)	G	G	X	F	F	X	G	G	G	X	X	X	X	X	—	—	X	G	F	G	G	G
Glucose (Non-food)	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
Glycerine, Glycerol (Non-food)	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G	G	G	G	G
Greases	G	G	G	G	G	F	G	G	G	X	F	X	G	G	G	—	G	G	G	G	G	G
Green Sulfate Liquor	G	G	G	F	F	F	G	G	X	G	G	G	X	G	X	G	G	X	F	X	X	G
Heptane	G	G	X	G	G	F	G	G	G	X	F	X	G	F	G	X	X	G	G	G	G	G

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Hexane	G	G	X	G	G	F	G	G	G	X	F	X	G	F	G	X	X	G	X	G	G	G
Houghto Safe 273 to 640	G	G	F	G	G	G	G	G	—	G	—	F	—	X	G	—	G	G	—	G	G	G
Houghto Safe 5046, 5047F	G	G	G	G	G	G	G	G	—	X	X	X	G	X	G	—	G	G	—	G	G	G
Houghto Safe 1000 Series	G	G	X	X	X	X	G	G	—	G	X	X	—	X	—	—	X	G	—	G	G	G
Hydraulic Oils:																						
Straight Petroleum Base	G	G	G	G	G	F	G	G	G	X	F	X	G	G	G	F	G	G	G	G	G	G
Water Petroleum Emulsion	G	G	—	G	G	F	G	G	—	X	F	X	G	X	G	—	F	G	—	G	G	G
Water Glycol	G	G	X	G	G	G	G	G	G	G	X	F	X	X	G	—	—	G	—	G	G	G
Hydraulic Oils:																						
Straight Phosphate Ester	G	G	X	X	X	X	G	G	G	G	X	X	—	X	G	—	X	G	—	G	G	G
Phos. Ester/ Petroleum Blend	G	G	X	X	X	X	G	G	G	X	X	X	—	X	G	—	X	G	—	G	G	G
Polyol Ester	G	G	—	G	G	X	G	G	—	X	—	X	—	G	G	—	—	G	—	G	G	G
Hydrobromic Acid (under 48%)	G	G	G	X	X	X	G	G	X	G	G	X	X	X	G	G	G	X	G	X	X	X
Hydrochloric Acid	G	G	G	X	X	X	G	G	X	G	G	X	X	X	G	G	G	X	G	X	X	X
Hydrocyanic Acid	G	G	G	F	F	X	G	G	X	F	G	X	X	—	X	G	G	X	F	X	F	G
Hydrofluoric Acid (under 50%)	G	G	F	X	X	X	G	G	X	F	G	X	X	X	X	G	F	X	G	X	X	G
Hydrofluoric Acid (over 50%)	G	G	X	X	X	X	G	G	X	X	G	X	X	X	X	G	X	X	G	X	X	G
Hydrofluosilicic Acid	G	G	G	F	F	X	G	G	X	G	G	X	—	—	G	—	G	X	—	X	X	X
Hydrogen	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	F	—	—	F	—	—	G
Hydrogen Peroxide	F	F	—	X	X	X	G	G	X	F	X	X	—	—	G	X	G	X	F	X	X	G
Hydrogen Sulfide	G	G	G	X	X	X	G	G	X	X	F	X	G	—	X	G	G	X	G	F	F	F
Hydrolube	G	G	G	G	G	F	G	G	—	G	—	—	F	X	—	—	G	G	—	G	G	G
Iodine	F	F	X	F	X	X	G	G	X	G	G	X	—	X	G	X	X	X	X	X	X	X
Isocyanates	G	X	X	X	X	X	G	—	X	X	X	X	X	X	X	—	X	X	—	—	—	—
Isopropyl Alcohol, Isopropanol	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	—	G	G	G	G	G	G
Isopropylamine	G	G	X	X	X	F	G	G	—	F	X	F	—	—	—	—	—	X	—	G	—	G
Iso-Octane	G	G	X	G	G	F	G	G	G	X	F	X	G	X	G	—	X	G	X	G	G	G
Jet Fuel (Transfer Only)	G	G	X	G	G	F	G	G	G	X	X	X	G	F	G	—	X	G	X	G	F	G

G - Good F - Fair X - Not Recommended — - Insufficient Information *For Intermittent Transfer Only **Use Approved Freon Hose

***Use Propane Approved Hose Only ◇ Use Pinpricked Hose for Gas Applications

Chemical resistance

Charts

Fluid	Hose and Tubing material																			Metals		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/ SBR	Hytrel	Polyurethane	CPE	EVA	LLDPE	Nylon 11	PVC / PU Blends	Brass	Steel	316 Stainless
Kerosene	G	G	X	G	G	F	G	G	G	X	F	X	F	G	G	X	X	G	X	G	G	G
Lacquer	G	G	X	X	X	X	G	G	G	X	X	X	X	X	F	X	F	G	X	G	X	G
Lacquer Solvents	G	G	X	X	X	X	G	G	G	X	X	X	F	X	F	X	F	G	X	G	X	G
Lactic Acid	G	G	G	X	X	G	G	G	G	F	G	X	X	X	X	G	G	G	G	F	F	G
Lime Sulfur	G	G	G	X	X	G	G	G	F	G	F	F	—	—	—	G	G	G	G	X	—	G
Lindol	G	G	—	X	X	X	G	G	G	G	X	X	—	X	—	—	—	G	X	F	G	G
Linseed Oil	G	G	G	G	G	X	G	G	G	X	F	X	F	F	G	X	G	G	G	F	G	G
Lubricating Oils	G	G	G	G	G	F	G	G	G	X	F	X	G	F	G	X	G	G	G	G	G	G
Lye	G	G	G	F	F	G	G	G	F	G	G	G	—	X	F	—	G	G	—	F	X	G
Magnesium Chloride	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	G	G	G	G	F	F	G
Magnesium Hydroxide	G	G	G	F	F	G	G	G	G	G	F	G	—	X	G	G	G	G	G	G	G	G
Magnesium Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	—	—	G	G	G	G	G	F	G	G
Mercuric Chloride	G	G	F	F	F	G	G	G	X	G	G	F	—	—	X	G	G	X	G	X	X	X
Mercury	G	G	F	G	G	G	G	G	G	G	G	F	G	G	G	G	G	G	G	X	G	G
Methyl Alc., Methanol	G	G	X	G	G	G	G	G	G	G	G	G	G	F	G	G	G	G	X	F	G	G
Methyl Acrylate	G	G	X	X	X	X	G	G	X	F	X	X	—	X	X	—	—	X	—	G	G	G
Methyl Bromide	X	X	X	X	X	X	G	G	F	X	X	X	X	X	X	X	X	G	X	G	G	G
Methyl Chloride	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	F	X	X	G	X	G	G	G
Methylene Chloride	G*	G*	X	X	X	X	G	G	F	X	X	X	X	X	X	X	X	F	X	G	G	G
Methyl-t-Butyl Ether (MTBE)	G	G	X	F	F	X	G	G	G	X	X	X	—	—	G	—	—	G	—	—	G	G
Methyl Ethyl Ketone	G	G	X	X	X	X	G	G	G	F	X	X	G	X	X	X	G	G	X	G	G	G
Methyl Iso-butyl Ketone	G	G	X	X	X	X	G	G	G	F	X	X	—	X	X	X	G	G	X	G	G	G
Methyl Iso-propyl Ketone	G	G	X	X	X	X	G	G	G	F	X	X	—	X	X	—	G	G	X	G	G	G
Methyl Methacrylate	G	G	X	X	X	X	G	G	—	X	X	X	—	X	X	—	—	G	—	—	G	G
Mineral Oil	G	G	F	G	G	F	G	G	G	X	F	X	G	G	G	X	X	G	G	G	G	G
Mineral Spirits	G	G	X	G	G	F	G	G	G	X	X	X	G	F	G	—	G	G	—	G	G	G
Naphtha	G	G	X	F	F	F	G	G	G	X	X	X	G	F	G	X	G	G	X	F	G	G
Napthalene	G	G	X	X	X	X	G	G	G	X	X	X	F	F	G	X	X	G	X	F	G	G

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Chemical resistance

Charts

Fluid	Hose and Tubing material																			Metals		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/ SBR	Hytrel	Polyurethane	CPE	EVA	LLDPE	Nylon 11	PVC / PU Blends	Brass	Steel	316 Stainless
Nickel Acetate	G	G	G	X	X	G	G	G	G	G	G	G	—	X	—	G	G	G	G	G	G	G
Nickel Chloride	G	G	G	G	G	F	G	G	G	G	G	G	X	X	G	G	G	G	G	X	X	F
Nickel Sulfate	G	G	G	G	G	F	G	G	G	G	G	G	—	F	G	G	G	G	G	X	X	G
Nitric Acid (under 35%)	G	F*	G	X	X	X	G	G	X	F	F	X	X	X	X	G	F*	X	G	X	X	G
Nitric Acid (35% to 60%)	F	X	F	X	X	X	G	G	X	X	X	X	X	X	X	X	X	X	G	X	X	G
Nitric Acid (over 60%)	X	X	X	X	X	X	G	G	X	X	X	X	X	X	X	X	X	X	G	X	X	G
Nitrobenzene	G	G	X	X	X	X	G	G	—	X	X	X	X	X	X	X	X	X	X	F	G	G
Nitrogen Gas ◇	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	—	G	G	—	G	G	G
Nitrous Oxide	G	G	X	X	X	X	G	G	F	X	X	G	X	X	X	—	X	F	G	G	G	G
Oleic Acid	G	G	F	F	F	X	G	G	G	F	F	X	G	F	G	X	G	G	G	F	F	G
Oleum (Fuming Sulfuric Acid)	X	X	X	X	X	X	G	G	X	X	X	X	X	X	X	X	X	X	X	X	F	G
Oxalic Acid	G	G	G	X	X	X	G	G	X	G	X	X	X	—	G	G	G	X	G	F	X	G
Oxygen (non-breathing, non-welding) ◇	G	G	G	F	F	G	G	G	G	G	G	F	G	G	G	G	G	G	G	G	G	G
Ozone (300 pphm)	F	F	X	X	X	X	G	G	X	G	G	X	X	G	G	X	X	X	X	—	F	G
Paint (Solvent Base)	G	G	X	F	F	X	G	G	G	X	X	X	—	X	—	—	F	G	—	G	G	G
Palmitic Acid	G	G	F	F	F	F	G	G	G	F	X	X	G	X	G	F	G	G	F	X	F	F
Paper Mill Liquors	G	G	X	F	F	F	G	G	X	G	F	F	X	X	—	—	X	X	—	—	—	—
Pentane	G	G	X	G	G	F	G	G	—	X	F	X	G	X	G	—	X	G	X	G	G	G
Perchloro-ethylene	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	—	F	X	F	F	G	G
Petroleum Ether	G	G	X	G	F	X	G	G	G	X	X	X	—	G	G	X	X	G	F	G	G	G
Petroleum Oils	G	G	G	G	G	F	G	G	G	X	F	X	G	G	G	—	G	G	—	G	G	G
Phenol	G	G	X	X	X	X	G	G	X	X	X	X	X	—	G	X	X	X	X	F	X	F
Phosphoric Acid (to 85%)	G	G	G	X	X	F	G	G	X	G	G	F	X	X	X	G	G	X	G	X	X	F
Picric Acid (Molten)	X	X	X	X	X	X	G	G	X	X	F	X	X	X	X	G	X	X	X	X	X	F
Picric Acid (Solution)	G	G	X	F	F	X	G	G	X	F	G	X	X	F	X	G	X	X	X	X	X	F
Potassium Chloride	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	G	G	G	G	F	X	G

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◇ Use Pinpricked hose for gas applications

Chemical resistance

Charts

Fluid	Hose and Tubing material																			Metals		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/ SBR	Hytrel	Polyurethane	CPE	EVA	LLDPE	Nylon 11	PVC / PU Blends	Brass	Steel	316 Stainless
Potassium Cyanide	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	F	G	G	F	X	G	G
Potassium Dichromate	G	G	G	X	X	X	G	G	—	G	X	X	—	G	G	G	G	F	G	X	G	G
Potassium Hydroxide	G	G	G	F	F	F	G	G	F	G	G	G	F	X	G	G	G	G	G	F	X	G
Potassium Permanganate	G	G	G	X	X	X	G	G	X	G	G	G	X	X	—	X	G	X	G	—	—	—
Potassium Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	G	G	G	G	F	F	G
Propane Liquid***	—	—	—	G	—	—	—	G	—	—	—	—	—	—	—	X	—	—	—	G	G	G
Propylene Glycol	G	G	F	G	F	G	G	G	—	G	G	G	G	—	G	G	G	G	—	F	G	G
Pyridine	G	G	X	X	X	X	G	G	X	F	X	X	X	X	X	—	G	X	—	F	G	G
Sea Water	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G	G	G	F	G
Silver Nitrate	G	G	G	G	G	G	G	G	G	G	G	G	—	G	—	G	G	G	G	X	X	F
Skydrol	G	G	X	X	X	X	G	G	G	G	X	X	—	X	G	—	X	G	—	G	G	G
Soap Solution	G	G	G	G	G	F	G	G	G	G	G	X	G	G	G	G	X	G	G	G	G	G
Sodium Bicarbonate	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	F	F	G
Sodium Bisulfate	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G	G	G	G	G	F	F	F
Sodium Bisulfite	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	F	X	G
Sodium Borate	G	G	G	G	G	G	G	G	G	G	G	G	G	G	—	—	G	G	—	G	G	G
Sodium Carbonate	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	X	G	G
Sodium Chloride	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	X	F	G
Sodium Cyanide	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	X	F	G
Sodium Hydroxide	G	G	G	F	F	G	G	G	F	G	G	G	—	X	F	G	G	G	F	F	X	G
Sodium Hypochlorite	G	G	G	X	X	X	G	G	X	G	G	X	G	X	F	G	G	X	G	X	X	F
Sodium Nitrate	G	G	G	G	G	F	G	G	G	G	G	G	G	F	G	G	G	G	G	F	G	G
Sodium Perborate	G	G	G	G	G	X	G	G	F	G	X	G	G	X	X	—	G	G	—	F	F	G
Sodium Peroxide	G	G	X	F	F	F	G	G	X	G	F	X	G	X	X	—	X	G	—	X	F	G
Sodium Phosphates	G	G	G	G	G	F	G	G	G	G	G	G	G	G	X	G	G	G	G	F	F	F
Sodium Silicate	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	F	F	G

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Chemical resistance

Charts

Fluid	Hose and Tubing material																			Metals		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/ SBR	Hytrel	Polyurethane	CPE	EVA	LLDPE	Nylon 11	PVC / PU Blends	Brass	Steel	316 Stainless
Sodium Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	F	F	G
Sodium Sulfide	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	X	X	G
Sodium Thiosulfate	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G	G	G	G	G	X	X	G
Soybean Oil	G	G	F	G	G	F	G	G	—	F	G	X	G	G	G	—	G	G	—	G	G	G
Stannic Chloride	G	G	G	G	G	X	G	G	X	G	G	G	G	G	G	G	G	F	G	X	X	X
Steam 450°F	X	X	X	X	X	X	G	G	X	G	X	X	X	X	X	—	X	X	—	F	F	G
Stearic Acid	G	G	F	F	F	F	G	G	G	F	F	X	G	G	G	G	G	G	F	X	X	G
Stoddard Solvent	G	G	X	G	G	F	G	G	G	X	X	X	G	G	G	X	X	G	G	G	G	G
Styrene	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	—	X	G	X	G	G	G
Sulfur 70°F	G	G	F	X	X	G	G	G	G	G	G	X	G	F	G	G	G	G	G	X	X	G
Sulfur 200°F	X	X	X	X	X	X	G	G	X	X	G	X	X	X	X	—	X	X	—	X	X	G
Sulfur Chloride	G	G	X	X	X	X	G	G	X	X	F	X	X	X	G	—	G	X	—	X	X	X
Sulfur Dioxide	X	X	X	X	X	X	G	G	X	G	X	X	X	X	X	X	X	X	F	X	—	G
Sulfuric Acid (under 50%)	G	G	G	X	X	X	G	G	X	G	G	X	X	X	X	G	G	X	G	X	X	X
Sulfuric Acid (51% to 70%)	G	G	G	X	X	X	G	G	X	F	G	X	X	X	X	X	X	X	F	X	X	X
Sulfuric Acid (71% to 95%)	G	F	X	X	X	X	G	G	X	F	F	X	X	X	X	X	X	X	G	X	X	X
Sulfuric Acid (96% to 98%)	G	X	X	X	X	X	G	G	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Tannic Acid	G	G	G	F	F	F	G	G	X	G	G	G	G	G	G	G	G	X	G	F	X	G
Tar	X	X	X	F	F	F	G	G	G	X	X	X	G	F	F	—	X	X	—	F	F	G
Tartaric Acid	G	G	G	G	G	F	G	G	G	G	G	G	—	G	G	G	G	G	G	F	X	F
Tetrachloro-ethane	G*	G*	X	X	X	X	G	G	—	X	X	X	X	X	X	—	F	F	X	—	—	G
Tetrahydro-furan (THF)	G	G	X	X	X	X	G	G	—	X	X	X	—	X	—	X	X	G	X	—	—	G
Toluene	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	X	G*	G	X	G	G	G
Transmission Oil (Petrol. Base)	G	G	G	G	G	F	G	G	G	X	F	X	G	G	G	X	G	G	—	G	G	G
Trichloro-ethane	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	—	G*	F	—	G	G	G
Trichloro-ethylene	G*	G*	X	X	X	X	G	G	G	X	X	X	X	X	X	X	G*	F	—	G	G	G
Tung Oil	G	G	—	G	G	F	G	G	—	X	F	X	G	F	X	—	—	G	—	F	G	G
Turpentine	G	G	X	F	F	X	G	G	G	X	X	X	F	X	F	X	G	G	G	F	G	G
Urea (Water Solution)	G	G	G	X	X	G	G	G	G	G	G	G	G	G	G	G	G	G	G	—	G	G

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Chemical resistance

Charts

Fluid	Hose and Tubing material																			Metals		
	UHMW	XLPE	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon (PTFE)	Teflon (FEP)	Nylon 6/66	EPDM	Hypalon	Natural Rubber/ SBR	Hytrel	Polyurethane	CPE	EVA	LLDPE	Nylon 11	PVC / PU Blends	Brass	Steel	316 Stainless
Uric Acid	G	G	G	—	—	—	G	G	G	—	—	—	X	X	—	G	G	G	G	—	—	F
Varnish	G	G	X	X	X	X	G	G	G	X	X	X	—	X	F	X	G	G	X	G	G	G
Vegetable Oil (Non-food)	G	G	F	G	G	X	G	G	G	X	G	X	—	G	—	X	G	G	G	G	G	G
Vinegar	G	G	G	F	F	G	G	G	X	G	G	F	—	X	F	G	G	G	—	X	F	G
Vinyl Acetate	G	G	X	X	X	X	G	G	—	F	X	X	—	X	—	X	—	G	X	F	G	G
Water (non-potable)	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	F	F	G
Water— Glycol Mixture	G	G	X	G	G	G	G	G	G	G	X	F	X	X	G	G	—	G	G	G	G	G
Water— Petroleum Mixture	G	G	—	G	G	F	G	G	G	X	F	X	G	X	G	G	F	G	G	G	G	G
Xylene	G*	G*	X	X	X	X	G	G	G	X	X	X	F	X	X	X	G*	G	X	G	G	G
Zinc Chloride	G	G	G	G	G	G	G	G	X	G	G	G	X	G	X	G	G	X	G	X	X	X
Zinc Sulfate	G	G	G	G	G	G	G	G	G	G	G	G	—	G	X	G	G	G	G	X	X	G

G - Good F - Fair X - Not Recommended — - Insufficient Information *For Intermittent Transfer Only **Use Approved Freon Hose

***Use Propane Approved Hose Only ◇Use Pinpricked Hose for Gas Applications