

# CHEMICAL RESISTANCE

Due to space limitations, this chart lists more commonly encountered chemicals and hose compounds. For information on other hose or elastomers chemicals such as Hypalon, Viton, Butyl, CPE, Polyethylene and Teflon, please contact us.

**Note:** This chemical resistance chart gives a general indication of suitability only and recommendations are based on use at room temperature. Conditions of use, such as temperature and pressure, may effect suitability. Other requirements, such as the need for a food grade compound or for agency approval (CGA, ULC, USDA, etc) may affect hose selection.

## Chart key:

- E...** recommended; little or no effect on hose compound, suitable for continuous service.
- G...** recommended; minor effect on hose compound, may be suitable for continuous service, suitable for intermittent service.
- C...** conditional or questionable; moderate to severe effect on hose compound, may be suitable for limited applications.
- X...** not recommended.
- I...** no data available.

	EPDM	Natural	Nitrile	Neoprene	SBR	XLPE	PVC	Urethane	UHMWPE
acetaldehyde 50%	G	G	X	C	C	E	X	X	E
acetic acid. glacial	G	G	C	X	G	E	C	X	E
acetic acid 30%	G	G	G	E	G	E	X	X	E
acetic anhydride	C	G	C	G	G	E	X	X	E
acetone	G	C	X	C	C	E	X	X	E
acetyl chloride	X	X	X	X	X	G	C	X	C
acetylene	G	G	E	G	G	E	G	X	E
adipic acid	G	E	E	E	E	I	I	I	E
aluminum acetate	G	E	G	G	G	E	I	X	E
aluminum chloride	G	E	E	E	E	E	E	C	E
aluminum fluoride	G	G	E	E	E	E	E	C	E
aluminum hydroxide	I	E	I	E	C	E	I	I	E
aluminum nitrate	G	E	E	E	E	E	I	C	E
aluminum sulfate	G	E	E	E	E	E	E	X	E
ammonia anhydrous... Use anhydrous ammonia hose only									
ammonia gas (cold)	G	E	E	E	E	E	I	C	I
ammonia gas (hot)	C	X	X	G	X	E	I	X	I
ammonium carbonate	G	E	X	G	X	E	E	X	I
ammonium chloride	G	E	E	E	E	E	E	E	E
ammonium hydroxide	G	X	G	E	X	E	C	X	E
ammonium nitrate	G	C	E	E	G	E	E	X	E
ammonium nitrite	G	E	E	E	E	E	I	I	I
ammonium phosphate	G	E	E	E	E	E	E	I	E
ammonium sulfate	G	E	E	E	E	E	E	E	E
amyl acetate	X	X	X	X	X	E	X	X	E
amyl alcohol	G	G	G	G	G	E	G	X	E
aniline	G	X	X	X	X	E	X	X	E
aniline dyes	G	G	X	G	G	E	I	X	I
aniline hydrochloride	C	G	G	X	X	E	I	X	I
animal fats	C	X	E	G	X	E	E	E	E
arsenic acid	G	G	E	E	E	E	G	C	E
arsenic trichloride	X	X	E	E	I	X	I	I	I
asphalt	I	X	G	G	X	X	C	G	C
barium chloride	G	E	E	E	E	E	E	E	E
barium sulfate	G	E	E	E	E	E	E	E	E
barium sulfide	G	E	E	E	G	E	E	E	E
beer	G	E	E	E	E	I	E	G	E
benzene	X	X	X	X	X	E	X	C	C
benzoic acid	X	X	C	X	X	E	I	I	E
benzyl alcohol	G	X	X	G	X	E	E	X	E
benzyl benzoate	C	X	X	X	X	E	I	I	I
benzyl chloride	X	X	X	X	X	E	I	X	C
boric acid	G	E	E	E	E	E	E	E	E
brine	G	E	E	E	E	E	E	G	E
bromine-anhydrous	X	X	X	X	X	X	I	X	X
bromine trifluoride	X	X	X	X	X	X	I	X	I
bromine water	G	X	X	X	X	X	I	X	I

	EPDM	Natural	Nitrile	Neoprene	SBR	XLPE	PVC	Urethane	UHMWPE
bromotoluene	X	X	X	X	X	C	I	I	I
bunker oil	X	X	E	X	X	E	I	G	E
butadiene	X	X	X	X	X	E	C	X	E
butane	X	X	E	E	X	E	C	E	E
butter	G	X	E	G	X	E	C	E	E
butyl acetate	X	X	X	X	X	E	X	X	E
butyl alcohol	C	E	E	E	E	E	G	X	E
butyl aldehyde	C	X	X	C	X	E	I	I	I
butyl amine	G	X	C	X	X	I	I	X	E
butyl benzoate	C	C	X	X	G	E	I	I	I
butyl cellosolve	G	X	C	C	X	E	I	X	E
butyl stearate	X	X	G	X	X	E	I	I	E
calcium acetate	G	E	G	G	X	E	I	X	E
calcium bisulfite	X	X	X	E	X	E	E	E	E
calcium carbonate	E	E	E	E	E	E	E	I	E
calcium chloride	G	E	E	E	E	E	E	E	E
calcium hydroxide	G	E	E	E	E	E	E	E	E
calcium hypochlorite	G	C	G	C	C	C	G	X	E
calcium nitrate	G	E	E	E	E	E	E	E	E
calcium sulfide	G	G	E	E	G	E	G	E	E
carbitol	C	G	G	G	G	E	I	X	E
carbolic acid (phenol)	C	X	X	C	X	E	C	C	E
carbon bisulfite	X	X	C	X	X	I	I	I	I
carbon dioxide	C	G	E	G	G	E	E	E	E
carbonic acid	G	E	G	E	G	E	E	E	E
carbon monoxide	G	G	E	G	G	E	G	E	I
carbon tetrachloride	X	X	C	X	X	E	X	X	C
carbon tetrafluoride	I	I	I	I	I	I	I	E	E
castor oil	C	E	E	E	E	E	G	E	E
caustic soda (sodium hydroxide)	G	E	G	E	E	E	G	C	E
cellosolve	C	X	X	X	X	E	I	X	E
cellosolve acetate	C	X	X	X	X	E	I	X	E
chlorine (dry)	X	X	X	C	X	C	E	X	C
chlorine (wet)	X	X	X	C	X	C	C	X	G
chlorine dioxide	X	X	X	X	X	I	I	X	I
chloroacetone	G	X	X	C	X	E	I	X	E
chloroacetic acid	G	X	X	X	X	E	I	X	E
chlorobenzene	X	X	X	X	X	E	X	X	E
chlorobutadiene	X	X	X	X	X	E	X	X	I
chloroform	X	X	X	X	X	G	X	X	C
chlorotoluene	X	X	X	X	X	G	X	X	X
chrome plating solutions	C	X	X	X	X	I	G	I	C
chromic acid	G	X	X	C	X	E	E	X	E
citric acid	G	E	E	E	E	E	E	G	E
cobalt	G	E	E	E	E	E	I	I	I
coconut oil	X	X	E	G	X	E	G	G	E
cod liver oil	G	X	E	G	X	E	E	E	E

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	EPDM	Natural	Nitrile	Neoprene	SBR	XLPE	PVC	Urethane	UHMWPE
coke oven gas	X	X	X	X	X	E	I	X	E
copper acetate	G	E	G	G	X	E	I	X	I
copper chloride	G	E	E	E	E	E	E	E	E
copper cyanide	G	E	E	E	E	E	E	E	E
copper sulfate	G	G	E	E	G	E	E	E	E
corn oil	X	X	E	C	X	E	E	E	E
cottonseed oil	C	X	E	G	X	E	G	E	E
creosote (coal tar)	X	X	E	G	X	E	X	X	E
cresol	X	X	X	C	X	E	G	X	E
cresylic acid	X	X	X	C	X	E	X	X	E
cumene	X	X	X	X	X	E	I	I	I
cyclohexane	X	X	E	C	X	E	X	G	E
cyclohexanol	X	X	C	E	X	E	X	I	E
cyclohexanone	G	X	X	X	X	E	X	X	E
p-cymene	X	X	X	X	X	E	X	I	I
decalin	X	X	X	X	X	E	I	I	E
denatured alcohol	G	E	E	E	E	E	E	X	E
detergent solution	G	G	E	G	G	E	E	C	E
(non-hydrocarbon) diacetone	G	X	X	X	X	E	I	X	I
diacetone alcohol	G	X	X	G	X	E	X	X	E
dibenzyl ether	C	X	X	C	X	E	I	G	I
dibutyl amine	G	X	X	X	X	E	I	X	I
dibutyl ether	X	X	X	C	X	E	I	G	E
dibutyl phthalate	C	X	X	X	X	E	X	C	E
dibutyl sebecate	C	X	X	X	X	E	I	X	E
dichlorobenzene	X	X	X	X	X	E	X	X	E
dichloroethylene	X	X	X	X	X	C	X	X	C
dichloro-isopropyl ether	X	X	X	X	X	E	I	G	I
diesel oil	X	X	E	C	X	E	C	C	E
diethylamine	G	G	G	G	G	E	E	C	E
diethylamine benzene	X	X	X	X	X	E	I	X	E
diethyl ether	X	X	X	C	X	E	C	G	E
diethylene glycol	G	E	E	E	E	E	E	X	E
diethyl sebecate	C	X	G	X	X	E	I	I	E
diisobutylene	G	X	G	X	X	E	I	I	I
diisopropyl benzene	X	X	X	X	X	E	I	I	I
diisopropyl ketone	G	X	X	X	X	E	I	X	I
dimethyl formamide	G	X	G	C	X	E	I	I	E
dimethyl phthalate	G	X	X	X	X	E	I	I	E
dinitrotoluene	X	X	X	X	X	E	I	I	I
dioctyl phthalate	C	X	C	X	X	E	X	I	E
dioctyl sebecate	C	X	X	X	X	E	I	I	I
dipentene	X	X	G	X	X	E	I	I	I
diphenyl - (phenylbenzene)	X	X	X	X	X	E	I	I	I
dowtherm oil	X	X	X	X	X	E	X	C	E
dry cleaning fluids	X	X	C	X	X	I	I	X	I
ethane	X	X	E	G	X	E	X	C	I
ethanolamine	G	G	G	G	G	E	C	C	E
ethyl acetate	G	X	X	C	X	E	X	X	E
ethyl acetoacetate	G	C	X	C	C	E	I	X	E
ethyl alcohol (ethanol)	G	E	E	E	E	E	G	X	E
ethyl benzene	X	X	X	X	X	E	I	X	E
ethyl benzoate	G	E	X	X	E	G	I	X	I
ethyl cellulose	C	G	G	G	G	E	I	G	E
ethyl chloride	X	X	E	X	X	E	X	C	E
ethyl ether	X	X	C	C	X	E	X	C	E
ethyl formate	C	X	X	G	X	E	I	I	E
ethyl pentachloro-benzene	X	X	X	X	X	X	I	C	I
ethyl silicate	G	G	E	E	G	E	I	I	I
ethylene	C	C	E	C	C	I	I	I	I
ethylene chloride	X	X	X	X	X	E	X	X	I
ethylene chlorohydrin	C	G	X	G	G	E	X	X	E
ethylene diamine	G	E	E	E	G	E	I	X	E
ethylene dichloride	X	X	X	X	X	E	X	X	C
ethylene glycol	G	E	E	E	E	E	E	C	E
ethylene trichloride	X	X	X	X	X	E	I	X	I
fatty acids	X	X	G	G	X	E	E	E	E
ferric chloride	G	E	E	E	E	E	E	E	E

	EPDM	Natural	Nitrile	Neoprene	SBR	XLPE	PVC	Urethane	UHMWPE
ferric nitrate	G	E	E	E	E	E	G	E	E
ferric sulfate	G	E	E	E	E	E	E	E	E
fish oil	X	X	E	X	X	E	I	I	E
fluoroboric acid	G	E	E	E	E	E	E	I	E
fluorobenzene	X	X	X	X	X	E	I	I	I
fluorolube	G	G	E	G	C	I	I	I	I
fluorosilicic acid	C	G	E	G	C	G	I	I	E
formaldehyde	G	G	C	G	G	E	C	X	E
formic acid	G	G	G	E	E	G	G	X	E
freon, all types... Use freon hoses only to prevent permeation into atmosphere									
fuel oil	X	X	E	G	X	E	C	G	E
furfural	G	X	X	C	X	E	X	C	E
gallic acid	G	E	G	G	G	E	E	X	E
gasoline	X	X	E	C	X	E	X	G	E
gelatin	G	E	E	E	E	E	G	C	I
glucose	G	E	E	E	E	E	E	C	E
glycerine	G	E	E	E	E	E	E	E	E
glycols	G	E	E	E	E	E	I	C	E
green sulfate liquor	G	G	G	G	G	E	I	E	E
hexane	X	X	E	G	X	G	C	G	E
hexyl alcohol	X	G	E	G	G	E	I	X	E
hydraulic oil (petroleum)	X	X	E	G	X	E	G	E	E
hydrobromic acid	G	E	X	X	X	E	E	X	E
hydrochloric acid 37%	G	G	C	G	G	E	E	X	E
hydrocyanic acid	G	G	G	G	G	C	G	I	E
hydrofluoric acid-(conc.) cold	G	X	X	X	X	E	E	X	E
hydrofluoric acid-anhydrous	G	X	X	X	X	E	C	X	I
hydrofluosilic acid	C	G	E	G	C	I	E	I	E
hydrogen gas	G	G	E	E	E	E	E	E	E
hydrogen peroxide 10%	I	X	I	I	X	E	I	I	E
hydrogen peroxide >10%	I	X	I	I	X	E	I	I	E
iodine	X	X	X	X	X	E	X	I	E
isobutyl alcohol	G	E	E	E	E	E	G	X	I
isooctane	X	X	E	G	X	E	C	G	E
isopropyl acetate	C	X	X	X	X	E	X	X	E
isopropyl alcohol	G	E	G	G	G	E	G	C	E
isopropyl chloride	X	X	X	X	X	E	I	X	I
isopropyl ether	X	X	G	C	X	E	X	G	E
kerosene	X	X	E	G	X	E	G	G	E
lacquer solvents	X	X	X	X	X	G	X	X	E
lactic acid (cold)	G	E	E	E	E	E	C	I	G
lard	C	X	E	G	X	E	G	E	E
lavender oil	X	X	G	X	X	G	I	X	E
lead acetate	G	E	G	E	X	E	E	X	E
lead nitrate	G	E	E	E	E	E	I	I	I
lead sulfamate	G	G	G	E	G	E	G	I	I
linseed oil	X	X	E	G	X	E	E	G	E
liquefied petroleum gas	X	X	E	G	X	E	I	E	E
lubricating oils - (petroleum)	X	X	E	G	X	E	G	G	E
lye	G	G	G	G	G	I	I	X	I
lye solutions	E	C	I	I	C	E	I	I	E
magnesium chloride	G	E	E	E	E	E	E	E	E
magnesium hydroxide	G	G	G	E	G	E	E	X	E
magnesium sulfate	G	G	E	E	G	E	E	E	E
maleic acid	G	C	X	C	C	G	G	I	E
maleic anhydride	C	C	X	C	C	I	I	I	E
malic acid	G	C	E	C	C	I	E	I	E
mercury	G	E	E	E	E	E	E	G	E
mesityl oxide	C	X	X	X	X	E	X	X	E
methane	X	X	E	G	X	E	I	C	I
methyl acetate	G	C	X	G	C	E	X	X	E
methyl alcohol (methanol)	G	E	E	E	E	E	G	X	E
methyl bromide	X	X	X	X	X	C	X	X	C
methyl butyl ketone (propyl acetone)	G	X	X	X	X	E	X	X	I
methyl cellosolve	C	X	G	G	X	E	C	X	E
methyl chloride	X	X	X	X	X	G	X	X	G
methyl ethyl ketone - (mek)	C	X	X	C	X	E	X	X	E
methyl isobutyl ketone	C	X	X	X	X	E	X	X	E

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	EPDM	Natural	Nitrile	Neoprene	SBR	XLPE	PVC	Urethane	UHMWPE
methyl oleate	C	X	X	X	X	E	I	I	I
methylene bromide	X	X	X	X	X	C	I	i	C
methylene chloride	X	X	X	X	X	C	I	i	C
milk	G	E	E	E	E	E	E	X	E
mineral oil	X	X	E	G	X	E	G	E	E
monochlorobenzene	X	X	X	X	X	G	X	X	G
monoethanolamine	G	G	X	X	G	E	I	I	E
monomethylether	X	X	E	C	X	I	I	I	I
monovinyl acetylene	G	G	E	G	G	I	I	I	I
naphtha	X	X	G	C	X	E	X	C	E
naphthalene	X	X	X	X	X	E	C	G	E
naphthenic acid	X	X	G	X	X	E	I	I	E
natural gas	X	G	E	E	G	E	I	G	E
nickel acetate	G	E	G	G	X	E	I	X	E
nickel chloride	G	E	E	E	E	E	E	C	E
nickel sulfate	G	G	E	E	G	E	E	C	E
nitric acid-conc.	G	X	X	X	X	C	X	X	C
nitric acid-dilute	G	X	X	G	X	E	E	C	E
nitrobenzene	G	X	X	X	X	E	X	X	E
nitroethane	C	G	X	C	G	E	I	X	I
nitromethane	C	G	X	G	G	E	I	I	E
nitrogen	G	E	E	E	E	E	E	E	E
nitrous oxide	I	E	E	I	E	E	E	I	E
octachlorotoluene	X	X	X	X	X	I	X	X	I
octyl alcohol	X	G	G	E	G	E	G	X	E
oleic acid	X	X	C	C	X	E	C	G	E
oleum	G	X	G	C	X	I	X	C	X
olive oil	C	X	E	G	X	E	G	E	E
o-dichlorobenzene	X	X	X	X	X	I	I	I	G
oxalic acid	G	G	G	G	G	E	E	I	E
oxygen	G	G	G	E	G	E	E	E	E
ozone	G	X	X	C	X	E	E	E	E
palmitic acid	C	G	E	G	G	G	I	E	E
peanut oil	X	X	E	C	X	E	G	G	E
perchloric acid	C	X	X	G	X	E	I	X	E
perchloroethylene	X	X	G	X	X	E	X	X	E
petroleum	X	X	E	G	X	E	G	G	E
phenol (carbolic acid)	G	X	X	C	I	E	C	C	E
phenylbenzene	X	X	X	X	X	I	X	I	I
phenyl hydrazine	C	E	X	X	G	E	I	I	G
phorone	X	X	X	X	X	E	I	I	I
phosphoric acid-20%	G	G	G	G	G	E	E	E	E
phosphoric acid-80%	G	C	X	G	C	E	E	I	E
phosphorus trichloride	G	X	X	X	X	I	I	I	I
picric acid	G	G	G	E	G	E	X	G	E
pine oil	X	X	E	X	X	E	C	I	E
polyvinyl acetate emulsion	G	G	I	G	X	I	I	I	I
potassium acetate	G	E	G	G	X	E	E	X	E
potassium chloride	G	E	E	E	E	E	E	E	E
potassium cupro cyanide	E	E	E	E	E	E	E	E	E
potassium cyanide	G	E	E	E	E	E	G	E	E
potassium dichromate	G	G	E	E	G	G	E	G	E
potassium hydroxide	G	G	G	G	G	E	E	X	E
potassium nitrate	G	E	E	E	E	E	E	E	E
potassium sulfate	G	G	E	E	E	E	E	E	I
propane	X	X	E	G	X	E	G	C	E
propyl acetate	C	X	X	X	X	E	I	I	E
propyl alcohol (propanol)	G	E	E	E	E	E	G	X	E
propyl nitrate	G	X	X	X	X	E	I	I	I
propylene	X	X	X	X	X	E	I	X	I
pyranol (transformer oil)	X	X	X	E	G	E	I	G	I
pyridine	G	X	X	X	X	E	X	G	I
sal ammoniac	G	E	E	E	E	E	I	E	I
salicylic acid	G	E	G	E	G	E	I	I	I
salt water	G	E	E	E	E	E	E	E	E
sewage	G	G	E	G	G	E	G	X	E
silicone greases	G	E	E	E	E	E	G	E	E

	EPDM	Natural	Nitrile	Neoprene	SBR	XLPE	PVC	Urethane	UHMWPE
silicone oils	G	E	E	E	E	E	G	E	E
silver nitrate	G	E	G	E	E	E	G	E	E
skydrol 500 & 7000	G	X	X	X	X	E	X	X	E
soap solutions	G	G	E	G	E	E	E	C	E
soda ash	G	E	E	E	E	E	E	E	E
sodium acetate	G	E	G	G	X	E	E	X	E
sodium bicarbonate	G	E	E	E	E	E	E	E	E
sodium bisulfite	G	E	E	E	G	E	E	E	E
sodium borate	G	E	E	E	E	E	E	E	E
sodium chloride (brine)	G	E	E	E	E	E	E	E	E
sodium cyanide	G	E	E	E	E	E	E	E	E
sodium hydroxide	G	E	G	E	E	E	G	X	E
sodium hypochlorite	C	X	G	E	X	G	G	X	E
sodium metaphosphate	G	E	E	G	E	E	E	I	E
sodium nitrate	G	G	G	G	E	E	E	E	E
sodium perborate	G	G	G	G	G	E	I	I	E
sodium peroxide	G	G	G	G	G	E	E	X	E
sodium phosphate	G	E	E	G	E	E	E	E	I
sodium silicate	G	E	E	E	E	E	E	E	E
sodium sulfate	G	G	E	E	G	E	E	E	E
sodium thiosulfate	G	G	G	E	G	E	E	E	E
soybean oil	X	X	E	G	X	E	E	G	E
stannic chloride	G	E	E	G	E	E	G	I	E
stearic acid	G	G	G	G	G	E	E	E	E
styrene	X	X	X	X	X	G	X	C	C
sucrose solution	G	E	E	G	E	E	E	X	E
sulfur	G	X	X	E	X	E	I	I	E
sulfur chloride	X	X	C	C	X	E	G	I	I
sulfur dioxide-dry	E	C	X	X	C	G	G	I	I
sulfur dioxide-liquid	G	G	X	G	G	E	X	I	I
sulfur dioxide-wet	E	G	X	G	G	E	X	I	I
sulfuric trioxide	C	G	X	X	G	G	E	I	X
sulfuric acid 10%	G	C	C	G	C	E	E	C	E
sulfuric acid 10-75%	G	X	X	X	X	E	C	X	E
sulfurous acid	G	G	G	G	G	E	G	X	E
tannic acid	G	E	E	E	G	E	E	E	E
tar bituminous	X	X	G	C	X	X	I	I	C
tartaric acid	C	C	E	G	X	E	E	E	E
terpineol	X	X	G	X	X	G	G	G	I
tertiary butyl alcohol	C	G	G	G	G	E	G	X	E
tetrachloroethylene	X	X	X	X	X	E	X	X	E
tetraethyl lead	X	X	G	G	X	I	I	I	I
toluene	X	X	X	X	X	E	X	X	G
toluol	X	X	X	X	X	E	I	I	E
transformer oil	X	X	E	G	X	E	I	E	E
transmission fluid A	X	X	E	G	X	E	I	E	E
trichloroethane	X	X	X	X	X	E	X	X	G
trichloroacetic acid	C	C	G	X	G	E	I	I	E
trichloroethylene	X	X	X	X	X	E	X	X	C
tricsesyl phosphate	X	X	X	X	C	E	X	C	E
triethanol amine	G	G	G	E	G	E	C	X	E
trinitrotoluene	X	X	X	G	X	E	I	I	G
turbine oil	X	X	G	X	X	E	G	E	I
turpentine	X	X	E	X	X	E	G	X	E
vegetable oils	X	X	E	C	X	E	G	G	E
vinegar	G	G	G	G	G	E	E	X	E
vinyl chloride	X	X	X	X	X	E	X	X	E
water	G	E	E	E	E	E	E	G	E
whiskey, wine	G	E	E	E	E	E	C	G	E
white oil	X	X	E	G	X	E	I	E	E
wood oil	X	X	E	G	X	E	E	C	E
xylene	X	X	X	X	X	E	X	X	C
zinc chloride	G	E	E	E	E	E	E	E	E
zinc sulfate	G	G	E	E	G	E	E	I	E