

CHEMICAL RESISTANCE DATA

Material Compatibility Key: 1. Excellent 2. Acceptable 3. Not Recommended 0. No Information, Test Before Using

Chemical	Teflon	Fitting Material				Effusion	Chemical	Teflon	Fitting Material				Effusion
		CS	304SS	316SS	Brass				CS	304SS	316SS	Brass	
Acetaldehyde	1	1	1	1	1	B	Beet Sugar Liquors	1	1	1	1	0	
Acetic Acid Glacial	1	0	2	2	0		Benzene	1	1	1	1	1	
Acetic Acid 30%	1	3	2	2	3		Benzenesulfonic Acid	0	3	0	2	0	
Acetic Anhydride	1	3	2	2	3		Benzaldehyde	1	1	0	0	0	
Acetone	1	1	1	1	1		Benzine	1	1	1	1	1	B
Acetylene	1	0	1	1	2	C	Benzyl Alcohol	1	1	1	1	0	
Acrylonitrile	1	1	1	1	0		Benzyl Benzoate	1	1	1	1	0	
Alum Ammonium or Potassium	1	3	2	2	3		Benzyl Chloride	1	1	0	0	0	
Aluminum Acetate	1	0	1	1	3		Bismuth Carbonate	1	1	1	1	0	
Aluminum Bromide	1	3	2	2	3		Black Sulphate Liquor	1	1	1	1	0	
Aluminum Chloride	1	3	2	2	3		Blast Furnace Gas	1	1	1	1	1	C
Aluminum Fluoride	1	3	2	2	3		Borax	1	2	1	1	2	
Aluminum Hydroxide	1	0	1	1	1		Bordeaux Mixture	1	0	1	1	0	
Aluminum Nitrate	1	3	1	1	0		Boric Acid	1	3	2	1	3	
Aluminum Salts	1	0	2	2	0		Bunker Oil	1	1	1	1	1	
Aluminum Sulfate	1	3	3	2	3		Butadiene	1	0	1	1	1	
Ammonia, Anhydrous	1	1	1	1	0		Butane	1	1	1	1	1	C
Ammonia, Aqueous	1	0	1	1	3		Butter Oil	1	1	1	1	1	
Ammonium Carbonate	0	1	1	1	0		Butyric Acid	1	3	1	1	2	
Ammonium Chloride	1	0	2	2	3		Butyl Acetate	1	2	1	1	1	
Ammonium Hydroxide	1	2	1	1	3		Butyl Alcohol	1	1	1	1	1	
Ammonium Metaphosphate	1	1	1	1	0		Butyl Amine	0	1	1	1	1	
Ammonium Nitrate	1	1	1	1	3		Butyl Carbitol	1	1	1	1	1	
Ammonium Nitrite	0	0	1	1	0		Butyl Stearate	1	1	1	1	1	
Ammonium Persulfate	0	0	1	1	0		Butyl Mercaptan	1	0	1	1	0	
Ammonium Phosphate	1	3	2	1	0		Butyraldehyde	1	0	0	0	1	
Ammonium Sulphate	1	1	1	1	3		Calcium Acetate	1	1	1	1	1	
Ammonium Thiocyanate	1	1	1	1	0		Calcium Bisulfate	1	0	2	1	3	
Amyl Acetate	1	3	1	1	1		Calcium Bisulfite	1	0	1	1	0	
Amyl Alcohol	1	1	1	1	1		Calcium Carbonate	1	1	1	1	1	
Amyl Chloride	1	0	1	1	0		Calcium Chlorate	1	0	2	1	0	
Amyl Chloronaphthalene	1	0	1	1	0		Calcium Chloride	1	3	2	1	2	
Amyl Naphthalene	1	0	1	1	0		Calcium Hydroxide	1	3	3	1	2	
Aniline	1	2	1	1	3		Calcium Hypochlorite	1	0	3	2	3	
Aniline Dyes	1	3	1	1	0		Calcium Nitrate	1	1	1	1	1	
Aniline Hydrochloride	1	0	3	3	3		Calcium Silicate	1	1	1	1	1	B
Animal Fats	1	1	1	1	0		Calcium Sulfate	1	1	1	1	1	
Aqua Regia	1	0	3	3	0		Calcium Sulfide	1	1	1	1	0	
Arsenic Acid	1	2	0	1	0		Cane Sugar Liquors	1	1	1	1	2	
Askarel	0	1	1	1	1		Carbolic Acid	1	3	1	1	3	
Asphalt	1	1	1	1	2		Carbon Dioxide	1	1	1	1	1	A
Barium Carbonate	1	2	1	1	1		Carbon Disulfide	0	2	1	1	2	
Barium Chloride	1	3	1	1	2		Carbonic Acid	1	3	1	1	3	
Barium Hydroxide	1	2	1	1	0		Carbon Monoxide	1	1	1	1	1	C
Barium Sulfate	1	1	1	1	2		Carbon Tetrachloride	1	3	2	2	2	
Barium Sulfide	1	3	1	1	3		Castor Oil	1	1	1	1	1	
Beer	1	2	1	1	1		Caustic Soda	1	2	1	1	3	
							Cellosolve, Acetate	1	1	1	1	0	

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		CS	304SS	316SS	Brass				CS	304SS	316SS	Brass	
Cellulosolve, Butyl	1	1	1	1	0		Diocetyl Phthalate	1	1	1	1	1	
Cellulube	1	1	1	1	1		Dioxane	1	1	1	1	1	
Chlorine, Gaseous, Dry*	*	2	3	3	2	C	Dipentene	1	1	1	1	1	
Chlorine, Gaseous, Wet*	*	3	3	3	3	B	Ethanolamine	1	1	1	1	1	
Chlorine Trifluoride	0	3	0	0	0	C	Ethyl Acetate	1	1	1	1	1	
Chloroacetic	1	3	3	3	2		Ethyl Acetaacetate						
Chlorobenzene	1	1	1	1	1		Ethyl Atrylate	0	1	1	1	0	
Chlorobromomethane	1	1	1	1	1		Ethyl Alcohol	1	1	1	1	2	
Chloroform	1	1	1	1	1		Ethyl Benzene	1	1	1	1	1	
O-Chloronaphthalene	1	1	1	1	1		Ethyl Cellulose	1	1	1	1	1	
Chlorotoluene	1	1	1	1	1		Ethyl Chloride	1	2	1	1	2	
Chromic Acid	1	3	3	2	3		Ethyl Ether	1	2	1	1	1	
Citric Acid	1	3	3	1	3		Ethyl Mertaptan	1	2	0	0	2	B
Cod Liver Oil							Ethyl Pentochlorobenzene	1	2	1	1	1	
Coke Over Gas	1	1	1	1	0		Ethyl Silicate						
Copper Chloride	1	3	3	1	3		Ethylene Chloride	1	2	1	1	2	
Copper Chanide	1	0	1	1	3		Ethylene Chlorohydrin	1	0	0	0	0	
Copper Sulfate	1	3	1	1	3		Ethylene Diamine	1	0	0	0	1	
Corn Oil							Ethylene Glycol	1	2	1	1	1	
Corn Syrup	1	1	1	1	0		Fatty Acids	1	0	1	1	0	
Cottonseed Oil							Ferric Chloride	1	3	3	3	3	
Creosote	1	2	1	1	3		Ferric Nitrate	1	3	1	1	0	
Cresol	1	2	1	1	0		Ferric Sulfate	1	3	1	1	3	
Crude Wax	1	1	1	1	1		Ferrous Chloride	1	3	1	2	2	
Cutting Oil	1	1	1	1	1		Ferrous Nitrate	1	0	1	1	0	
Cyclohexane	1	1	1	1	1		Ferrous Sulfate	1	3	1	1	2	
Cyclohexanone	1	0	1	1	0		Fluoroboric Acid	1	0	1	1	0	
Cymene	1	0	0	0	1		Flormaldehyde	1	0	1	1	1	
Decalin	1	0	0	0	1		Formic Acid	1	3	1	2	1	
Denatured Alcohol	1	1	1	1	1		Freon 12	2	3	1	1	0	A
Diacetone	1	1	1	1	1		Freon 114	2	3	1	1	0	A
Diacetone Alcohol	1	1	1	1	1		Fuel Oil	1	2	2	2	1	
Dibenzyl Ether	1	1	1	1	1		Fumaric Acid	0	0	1	1	0	
Dibutyl Ether	1	1	1	1	1		Furon Furfuran	1	1	1	1	1	
Dibutyl Phthalate	1	1	1	1	1		Fufural	1	2	1	1	1	
Dibutyl Sebacate	1	1	1	1	1		Gallic Acid	1	3	1	1	0	
Dichlorobenzene	1	0	1	1	1		Gasoline	1	2	1	1	1	
Diesel Oil	1	1	1	1	1		Glauber's Salt	0	1	1	1	0	
Diethylamine	1	3	0	2	3		Glucose	1	1	1	1	1	
Diethyl Ether	1	1	1	1	1	B	Glue	1	2	1	1	3	
Diethylene Glycol	1	1	1	1	1		Glycerin	1	2	1	1	1	
Diethyl Phthalate	1	0	1	1	1		Glycols	1	1	1	1	1	
Diethyl Sebacate	1	0	1	1	1		Green Sulfate Liquor	1	1	1	1	0	
Di-Isobutylene	0	0	1	1	1		n-Hexaldehyde	1	1	1	1	1	
Di-Isopropyl Keytone	1	0	1	1	1		Hexane	1	1	1	1	1	
Dimethyl Aniline	1	0	0	0	1		Hexene	1	1	1	1	1	
Dimethyl Formamide	0	1	1	1	0		Hexyl Alcohol	1	1	1	2	0	
Dimethyl Phthalate	1	0	0	0	1		Hydraulic Oil, Petroleum	1	1	1	1	1	

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		CS	304SS	316SS	Brass				CS	304SS	316SS	Brass	
Hydrochloric Acid, 15%	1	3	3	3	3	B	Monoethanolamine	0	1	1	1	1	
Hydrochloric Acid, 37%	1	3	3	3	3	B	Naphtha	1	2	1	1	1	
Hydrocarbon Acid	1	3	1	1	3		Naphthalene	1	0	1	1	0	
Hydrofluoric Acid, Concentrated	1	3	3	3	3		Napthenic Acid	1	0	2	1	0	
Hydrofluosilicic Acid	1	0	3	3	3		Natural Gas	1	1	1	1	2	
Hydrogen, Gaseous	*	1	1	1	1	C	Nickel Acetate	1	1	1	1	1	
Hydrogen Peroxide, 70%	1	3	2	1	3		Nickel Chloride	1	3	2	2	3	
Hydrogen Sulfide, Gaseous	1	3	2	1	3		Nickel Sulfate	1	0	2	1	3	
Hydroquinone	0	1	0	1	0		Niter Coke	0	3	2	1	0	
Isobutyl Alcohol	1	1	1	1	2		Nitric Acid, All Concentrations	1	3	2	2	3	
Iso Octane	1	1	1	1	1		Nitric Acid, Red Fuming	1	3	2	2	3	
Isopropyl Acetate	1	1	1	1	1		Nitrobenzene	1	1	1	1	1	
Isopropyl Alcohol	1	1	1	1	2		Nitroethane	1	0	1	1	1	
Isopropyl Ether	1	1	1	1	1		Nitrogen, Gaseous	1	1	1	1	1	A
Kerosene	1	1	1	1	1		Nitrogen Tetroxide	0	0	0	2	0	
Lacquers	1	3	3	1	1		n-Octane	0	1	1	1	1	
Lacquer Solvents	1	3	3	1	1	B	Octyl Alcohol	1	1	1	1	2	
Lactic Acid	1	3	2	1	2		Oil, SAE	1	1	1	1	1	
Lard	1	1	1	1	3		Oleic Acid	1	2	2	1	2	
Lead Acetate	1	2	1	1	1		Olive Oil	1	2	2	1	2	
Lead Nitrate	0	1	1	1	0		Oxalic Acid	1	3	2	1	3	
Lime Bleath	0	3	2	1	0		Oxygen, Gaseous	1	1	1	1	1	A
Linoleic Acid	1	0	0	0	0		Ozone	1	1	1	1	1	
Linseed Oil	1	2	1	1	2		Paint	1	0	1	1	1	
Lubricating Oils, Petroleum	1	1	1	1	1		Palmitic Acid	1	1	2	1	3	
Magnesium Chloride	1	3	2	1	2		Peanut Oil	1	1	1	1	1	
Magnesium Hydroxide	1	1	1	1	0		Perchloric Acid	1	0	2	1	0	
Magnesium Sulfate	1	2	1	1	1		Perchloroethylene	1	1	1	1	1	
Molic Acid	1	2	2	1	0		Petroleum	1	1	1	1	1	
Mercuric Chloride	1	3	1	1	3		Phenol	1	3	1	1	3	
Mercury	1	1	1	1	3		Phorone 1	1	1	1	1	1	
Mesityl Oxide	1	1	1	1	1		Piric Acid	1	3	1	1	3	
Methyl Acetate	1	1	1	1	1		Pinene	1	1	1	1	1	
Methyl Atrylate	0	1	1	1	1		Pine Oil	1	1	1	1	0	
Methyl Alcohol	1	1	1	1	2		Plating Solution, Chrome	1	0	3	3	0	
Methyl Bromide	1	1	1	1	1	B	Potassium Acetate	1	0	1	1	0	
Methyl Butyl Ketone	0	1	1	1	1		Potassium Chloride	1	2	2	1	3	
Methyl Chloride	1	1	1	1	1	B	Potassium Cyanide	1	2	1	1	3	
Methylene Chloride	1	1	1	1	1		Potassium Dichromate	1	0	1	1	0	
Methyl Ethyl Ketone (MEK)	1	1	1	1	1		Potassium Hydroxide, 30%	1	3	1	1	3	
Methyl Formate	1	1	1	1	1	B	Potassium Nitrate	1	3	1	1	2	
Methyl Isobutyl Ketone	1	1	1	1	1		Potassium Sulfate	1	2	1	1	2	
Methyl Methacrylate	1	1	1	1	1		Propane	1	1	1	1	1	A
Methyl Salicylate	1	1	1	1	1		Propyl Acetate	0	1	1	1	1	
Milk	1	3	1	1	3		Propyl Alcohol	1	1	1	1	2	
Mineral Oil	1	1	1	1	1		Pyricine, 50%	1	0	1	1	1	
Monochlorobenzene	1	1	1	1	1		Red Oil	1	2	2	1	2	

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Chemical	Fitting Material					Effusion	Chemical	Fitting Material					Effusion
	Teflon	CS	304SS	316SS	Brass			Teflon	CS	304SS	316SS	Brass	
Salicylic Acid	0	0	1	1	0		Sulfur Trioxide	1	2	2	2	0	B
Salt Water	1	2	1	1	3		Sulfuric Acid, 10%	1	3	3	2	3	
Sewage	1	3	1	1	1		Sulfuric Acid, 98%	1	2	3	2	3	
Silicone Greases	0	1	1	1	1		Sulfuric Acid, Fuming	1	2	0	1	3	
Silicone Oils	0	1	1	1	1		Sulfurous Acid, 10%	1	3	2	1	3	
Silver Nitrate	1	2	1	1	2		Sulfurous Acid, 75%1	1	3	3	2	3	
Skydrol 500 & 7000	1	1	1	1	0		Tannic Acid, 10%	1	2	1	1	3	
Soap Solutions	1	1	1	1	1		Tar, Bituminous	1	1	1	1	2	
Soda Ash	1	1	1	1	2		Tartaric Acid	1	0	2	2	0	
Sodium Acetate	1	1	1	1	1		Terpineol	1	0	0	0	0	
Sodium Bicarbonate	1	2	1	1	2		Titanium Tetrachloride	0	1	2	2	3	
Sodium Bisulfite	1	1	1	1	0		Toluene	1	1	1	1	1	
Sodium Borate	1	1	1	1	0		Toluene Diisocyanate	0	0	0	0	0	
Sodium Chloride	1	2	2	1	3		Transformer Oil	1	1	1	1	1	
Sodium Cyanide	1	2	1	1	3		Transmission Fluid, Type A	1	1	1	1	1	
Sodium Hydroxide, 40%	1	2	1	1	3		Tributoxyethyl Phosphate	1	1	0	0	0	
Sodium Hypochlorite	1	3	3	2	3		Tributyl Phosphate	1	1	0	0	0	
Sodium Metaphosphate	1	3	1	1	3		Trichlorethylene	1	3	0	1	1	
Sodium Nitrate	1	1	2	2	2		Tricresyl Phospahte	1	1	0	2	0	
Sodium Perborate	1	3	1	1	3		Tung Oil	1	1	1	1	1	
Sodium Peroxide	1	3	1	1	3		Turpentine	1	0	1	1	2	
Sodium Phosphate	1	0	1	1	3		Urea Solution, 50%	1	1	1	1	0	
Sodium Thiosulfate	1	3	1	1	3		Varnish	0	2	1	1	2	
Soybean Oil	1	1	1	1	0		Vegetable Oils	1	1	1	1	0	
Stannic Chloride	1	3	0	0	3		Versilube	1	1	1	1	1	
Steam	1	1	1	1	2	A	Vinegar	1	3	2	1	3	
Stearic Acid	1	3	2	1	3		Vinyl Chloride	1	2	1	1	3	C
Stoddard Solvent	1	2	1	1	1		Water	1	2	1	1	1	
Styrene	1	2	0	2	2		Whiskey, Wines	1	3	2	1	3	
Sucrose Solution	1	1	1	1	0		Xylene	1	2	2	2	0	
Sulfur, 200degrees F	1	2	2	1	3		Zinc Acetate	1	1	1	1	1	
Sulfur Chloride	1	3	3	2	3		Zinc Chloride	1	3	2	1	3	
Sulfur Dioxide	1	2	1	1	1	C	Zinc Sulfate	1	3	2	1	3	

Effusion Chart Key:

- A. Effusion will occur with potential to displace breathable air in an enclosed environment. For further information contact factory.
- B. These compounds have the capability to effuse and with certain atmospheric conditions can corrode metallic components such as braid and fittings. Applications with these compounds require using hose assemblies only in well ventilated spaces, please consult factory with questions.
- C. Chemicals in this category are in a gas phase at atmospheric pressures and at temperatures of 56°F or less. For further information on compatibility please consult factory.

