

	N	PUR	PE	PVC		N	PUR	PE	PVC		N	PUR	PE	PVC
Acetic Acid, Glacial	-	4	1	4	Ethylene Chloride	-	4	3	4	Picric Acid	3	2	-	4
Acetic Acid, 30%	-	4	1	4	Ethylene Glycol	2	4	1	1	Potassium Acetate (aq)	-	4	-	-
Acetone	-	4	2	4	Ethylene Oxide	1	4	3	3	Potassium Chloride (aq)	-	1	1	1
Acetylene	-	4	1	1	Ethylene Trichloride	-	4	-	-	Potassium Cyanide (aq)	-	1	1	1
Alkazine	-	4	-	-	Ferric Chloride (aq)	-	1	1	1	Potassium Hydroxide (aq)	3	4	1	1
Aluminum Chloride (aq)	-	3	2	1	Ferric Nitrate (aq)	-	1	2	1	Producer Gas	-	1	1	1
Aluminum Nitrate (aq)	-	3	-	-	Ferric Sulfate (aq)	-	1	1	1	Propane	1	3	3	1
Ammonia Anhydrous	-	4	2	1	Fluorine (Liquid)	4	4	3	4	Propyl Alcohol	-	4	-	-
Ammonia Gas (cold)	-	3	-	-	Formaldehyde (RT)	-	4	2	1	Propylene	-	4	-	-
Ammonia Gas (hot)	-	4	-	-	Formic Acid	3	3	2	1	Propylene Oxide	-	4	-	-
Ammonia Chloride (aq)	-	1	1	1	Freon 11	-	4	3	1	Pydraul, 10E, 29 ELT	-	4	-	-
Ammonium Sulfate (aq)	-	1	1	1	Freon 12	1	1	3	1	Pydraul, 30E, 50E, 65 E	-	4	-	-
Amyl Alcohol	-	4	2	1	Freon 22	1	4	-	2	Pydraul, 115E	-	4	-	-
Amyl Naphthalene	-	4	-	-	Fuel Oil	-	2	3	1	Pydraul, 230E, 312C, 540C	-	4	-	-
Animal Fats	-	1	-	-	Futural Glucose	-	4	1	1	Rapeseed Oil	-	2	-	-
Aqua Regia	-	4	2	3	Glue	-	1	1	3	Red Oil (MIL-H-5606)	-	1	-	-
Arsenic Acid	-	3	2	1	Glycerin	1	1	1	1	RP-1 (MIL-F-23338 B)	-	1	-	-
Asphalt	-	2	1	1	Glycols	1	4	-	-	RP-1 (MIL-F-25576 C)	-	1	-	-
ASTM Fuel A	-	2	-	-	Green Sulfate Liquor	-	1	-	-	Salt Water	1	2	1	1
ASTM Fuel B	-	3	-	-	Hexane	-	2	3	2	Sewage	-	4	-	-
ASTM Fuel C	-	3	1	1	Hydraulic Oil	-	1	1	1	Silicate Esters	-	1	-	-
Barium Chloride (aq)	-	1	1	1	Hydrochloric Acid (cold) 37%	-	4	2	2	Silicone Oils	-	1	1	1
Beer	1	2	1	1	Hydrochloric Acid (hot) 37%	-	4	-	-	Silver Nitrate	-	1	2	1
Beet Sugar Liquors	-	4	1	1	Hydrofluoric Acid (Conc.) Cold	-	3	-	-	Skydrol 500	-	4	-	-
Benzene	1	3	3	3	Hydrochloric Acid (Conc.) Hot	-	4	-	-	Skydrol 700	-	4	-	-
Benzine	-	2	-	-	Hydrogen Gas	1	1	1	1	Soap Solutions	1	3	3	1
Blast Furnace Gas	-	4	-	-	Isobutyl Alcohol	-	4	-	-	Sodium Chloride (aq)	1	1	1	1
Bleach Solutions	-	4	-	1	Isocetane	-	2	-	-	Sodium Hydroxide (aq)	2	4	2	1
Borax	-	1	1	2	Isopropyl Acetate	-	4	2	4	Sodium Peroxide (aq)	-	4	1	2
Boric Acid	-	1	1	1	Isopropyl Alcohol	1	3	-	-	Sodium Phosphate (aq)	-	1	-	-
Brake Fluid	-	4	-	-	Isopropyl Ether	-	2	1	2	Sodium Sulfate (aq)	-	1	1	1
Brine	-	2	4	3	Kerosene	1	1	3	4	Soy Bean Oil	-	2	1	1
Bromine Water	4	4	-	-	Lacquers	-	4	2	3	Steam Under 300°F	4	4	-	-
Bunker Oil	-	2	-	-	Lacquer Solvents	-	4	2	3	Steam Over 300°F	4	4	-	-
Butane	1	1	3	3	Lard	-	1	2	1	Stoddard Solvent	-	1	3	3
Butter	-	1	-	-	Lavender Oil	-	4	-	-	Styrene	-	3	-	4
Butyl Alcohol	3	4	1	2	Lead Acetate (aq)	-	4	1	1	Sucrose Solution	-	4	-	-
Butylene	-	4	1	1	Linseed Oil	1	2	3	1	Sulfuric Acid (Dilute)	-	3	1	1
Calcium Chloride (aq)	1	1	2	1	Liquid Petroleum Gas	-	-	-	-	Sulfuric Acid (Conc.)	-	4	3	4
Calcium Hydroxide (aq)	-	1	2	1	Lubricating Oils	-	2	4	2	Sulfuric Acid (20% Oleum)	-	4	-	-
Calcium Nitrate (aq)	1	1	-	-	Lye	-	4	-	-	Sulfurous Acid	-	3	2	1
Calcium Sulfide (aq)	-	1	-	-	Magnesium Chloride (aq)	1	1	1	1	Tannic Acid	-	1	2	1
Cane Sugar Liquors	-	4	-	1	Magnesium Hydroxide (aq)	-	4	1	1	Tetrochloroethylene	-	4	2	4
Carbolic Acid	-	3	2	3	Mercury	1	1	1	2	Toluene	1	4	3	4
Carbon Dioxide	-	1	3	1	Methane	1	3	-	-	Transformer Oil	-	1	-	-
Carbon Acid	-	1	2	1	Methyl Acetate	1	4	2	4	Transmission Fluid Type A	-	1	-	-
Carbon Monoxide	-	1	2	1	Methyl Acrylate	-	4	-	-	Trichloroethane	3	4	-	3
Carbon Tetrachloride	3	4	2	2	Methyl Alcohol	1	4	1	1	Trichloroethylene	3	4	3	4
Castor Oil	-	1	-	1	Methyl Butyl Ketone	-	4	-	1	Turbine Oil	-	1	3	1
Chlorine (dry)	4	4	2	1	Methyl Chloride	3	4	3	4	Turpentine	1	4	3	2
Chlorine (wet)	4	4	-	-	Methylene Chloride	-	4	3	4	Varnish	-	3	3	4
Chloroform	3	4	3	4	Methyl Ethyl Ketone	1	4	2	4	Vinegar	1	4	2	1
Chlorox	-	4	-	-	Methyl Isobutyl Ketone	1	4	-	-	Vinyl Chloride	-	4	-	-
Chromic Acid	4	4	1	1	Milk	1	4	1	1	Water	1	1	1	1
Citric Acid	1	1	1	2	Mineral Oil	1	1	2	1	Whiskey, Wines	1	2	3	1
Coal Tar	-	3	-	-	Naphtha	1	2	1	3	White Oil	-	1	-	-
Coconut Oil	-	2	-	1	Naphthalene	1	2	1	4	Wood Oil	-	3	-	-
Cod Liver Oil	-	1	-	1	Natural Gas	-	2	-	-	Xylene	2	4	3	4
Coke Oven Gas	-	4	-	-	Neatsfoot Oil	-	1	-	-	Zinc Acetate (aq)	-	4	-	-
Copper Chloride (aq)	-	1	2	1	Nitric Acid (Conc.)	4	4	3	4	Zinc Chloride (aq)	1	1	1	1
Copper Cyanide (aq)	-	1	2	1	Nitric Acid (Delute.)	4	3	-	4					
Corn Oil	-	1	3	2	Nitroethane	-	4	-	-					
Cotton Seed Oil	-	1	2	2	Nitrogen	-	1	-	-					
Creosol	4	4	3	4	N-Octane	-	4	-	-					
Cychlohexane	1	1	2	4	Oleic Acid	1	2	3	3					
Denatured Alcohol	-	4	-	-	Oleum Spirits	-	3	4	4					
Detergent Solution	-	4	1	1	Olive Oil	-	1	1	3					
Diesel Oil	-	3	3	1	Oxygen-Cold	1	1	-	-					
Dioxane	-	4	-	-	Oxygen (200-400°F)	-	4	-	-					
Dowtherm Oil	-	3	-	-	Paint Thinner, Duco	-	4	-	-					
Dry Cleaning Fluids	-	4	-	-	Perchloric Acid	-	4	-	-					
Ethane	-	3	-	4	Perchloroethylene	3	4	4	3					
Ethyl Acrylate	-	4	-	-	Petroleum- Below 250°F	-	2	-	-					
Ethyl Alcohol	3	4	-	-	Petroleum- Above 250°F	4	4	-	-					
Ethyl Benzine	-	4	-	-	Phenol	4	3	2	3					
Ethyl Cellulose	-	2	-	-	Phenyl Ethyl Ether	-	4	-	-					
Ethyl Chloride	-	2	-	-	Phosphoric Acid 45%	2	1	2	2					
Ethyl Ether	-	3	-	-	Pickling Solution	-	4	-	-					

1= Little or no impact      3= Moderate effect  
 2= Minor effect              4= Severe effect

**Note:** the ratings provided are very general guidelines to be referred to only for initial screening purposes. Specific tubing compounds can be positively or negatively affected by varying temperatures, chemical mixtures and/or static vs. dynamic applications. *Careful testing under actual conditions is essential.* **Accuracy for these ratings is not given or implied.**

N= Nylon    PUR= Polyurethane  
 PE= Polyethylene  
 PVC= Polyvinyl Chloride