CHEMICAL RESISTANCE PROPERTIES OF INNOVAPRENE P 60 ® TUBING

The ratings in the charts on are based on the results of laboratory tests. They reflect the relative capabilities of various Innovapure's tubing formulations to withstand specific chemicals.

NOTE: The ratings in the charts DO NOT reflect the extent to which extraction may occur, or the extent to which fluids may undergo any physical changes in properties or composition, as a result of coming into contact with the tubing. Innovapure makes no representation or warranty with respect to the susceptibility of any fluid to become contaminated or undergo changes in properties or composition as a result of possible extraction of tubing ingredients by the fluid to be transmitted. Certain corrosives that would be destructive to tubing with prolonged exposure can be satisfactorily handled for short periods of time if flushed with water after use. All ratings are based on room temperature (23°C). Chemical resistance will be adversely affected by elevated temperatures.

Chemical Resistance Properties

E - Excellent G - Good F - Fair X - Not recommend

Acetaldehyde	X
Acetamide, 67% in w	G
Acetate Solvents (general)	G
Acetic Acid, 10% in w	E
Acetic Acid, 50-60% in w	G
Acetic Acid, Glacial, 100%	G
Acetic Anhydride	E
Acetone	X
Acetonitrile	G
Acetyl Bromide	F
Acetyl Chloride	F
Acetylene Gas	E
Acrylonitrile	G
Adipic Acid, 100% in alc	G
Air	E
Alcohols General	E
Aliphatic Hydrocarbons	X
Allyl Alcohol	F
Alum, 5% in w	E
Aluminum Chloride, 53% in w	E
Aluminum Hydroxide, 2% in w	E
Aluminum Sulfate, 50% in w	E
Aluminum Salts	E
Amines	F
Ammonia Gas	E
Ammonia, Anhydrous Liquid	G
Ammonium Acetate, 45% in w	E
Ammonium Carbonate, 50% in w	E
Ammonium Hydroxide, 5-10% in w	E
Ammonium Hydroxide, 30% in w	E
Ammonium Persulfate, 30% in w	E
Ammonium Salts	E
Ammonium Sulfate, 30% in w	E
Amyl Acetate	G
Amyl Alcohol	X
Amyl Chloride	F
Aniline	F
Aniline Hydrochloride	F
Antimony Salts	E
Aqua Regia	X
Aromatic Hydrocarbons	X
Arsenic Acid, 20% in w	F
Arsenic Salts	E
ASTM Reference No. 1 Oil	F
ASTM Reference No. 2 Oil	X
ASTM Reference No. 3 Oil	X
Barium Carbonate, 1% in w	E
Barium Hydroxide, 5% in w	E
Beer	E
Benzaldehyde	X
Benzene	X
Benzenesulfonic Acid	X
Benzoic Acid	G
Benzyl Alcohol	E
Bleach Liquor, 22% in w	E
Borax, 6% in w	E
Boric Acid, 4% in w	E
Bromine, Anhydrous Liquid	X
Butadiene	E
Butane	E
Butyl Acetate	G
Butyl Alcohol	X
Butyric Acid	G
Calcium Carbonate, 25% in dilute acids	E
Calcium Chloride, 30% in w	E
Calcium Hydroxide, 10% in glycerol	E
Calcium Hypochlorite, 20% in w	E
Calcium Nitrate, 55% in w	E
Calcium Salts	E
Calcium Sulfate, 1% in w	E
Carbon Dioxide, Wet/Dry	E
Carbon Disulfide	X
Carbon Monoxide	E
Carbon Tetrachloride	X
Carbonic Acid	E
Castor Oil	F
Cellosolve	F
Cellosolve Acetate	F
Chlorine, Dry Gas	F
Chlorine, Wet Gas	X
Chloroacetic Acid, 20% in w	G
Chlorobenzene, Mono, Di, Tri	X
Chloroform	X
Chlorosulfonic Acid	X
Chromic Acid, 10-20% in w	E
Chromic Acid, 50% in w	F
Citric Acid, 10-20% in w	E
Coconut Oil	F
Corn Syrup	E
Cottonseed Oil	F
Cresol (m, o, or p)	X
Cresylic Acid	G
Cupric Chloride, 40% in w	E
Cupric Nitrate, 70% in w	E
Cupric Sulfate, 13% in w	E
Cyclohexane	X
Cyclohexanone	X
Detergent Solutions	G
Dibutyl Phthalate	E
Diesel Fuel	X
Diethylamine, 2.5% in w	E
Diethylene Glycol	E
Dimethylformamide	G
Dimethylsulfoxide	G
Dioctyl Phthalate	E
Dioxane	X
Ether	F
Ethyl Acetate	G
Ethyl Alcohol (Ethanol)	F
Ethyl Benzoate	X
Ethyl Chloride	F
Ethyl Ether	F
Ethylene Bromide	X
Ethylene Chlorohydrin	E
Ethylene Dichloride	F
Ethylene Glycol	E
Ethylene Oxide	E
Fatty Acids	F
Ferric Chloride, 43% in w	E
Ferric Nitrate, 60% in w	E
Ferric Sulfate, 5% in w	E
Ferrous Chloride, 40% in w	E
Ferrous Sulfate, 5% in w	E
Fluoboric Acid, 48% in w	X
Fluorine Gas	X
Fluosilicic Acid, 25% in w	E
Formaldehyde, 37% in w	X
Formic Acid, 25% in w	E
Formic Acid, 40-50% in w	G
Formic Acid, 98% in w	G
Freon 11	E
Freon 12	E
Freon 22	E
Fruit Juice	E
Fuel Oil	X
Furfural	X
Gallic Acid, 17% in acetone	G
Gasoline, Automotive	X
Gelatin	E
Glucose, 50% in w	E
Glycerol, (Glycerin)	E
Glycolic Acid, 70% in w	G
Heptane	X
Hexane	X
Hydrazine	F
Hydrobromic Acid, 20-50% in w	X
Hydrobromic Acid, 100% in w	X
Hydrochloric Acid, 10% in w	E
Hydrochloric Acid, 37% in w	G
Hydrocyanic Acid	E
Hydrofluoric Acid, 10% in w	X
Hydrofluoric Acid, 25% in w	X
Hydrofluoric Acid, 40-48% in w	X
Hydrogen Gas	E
Hydrogen Peroxide, 3% in w	E
Hydrogen Peroxide, 10% in w	E
Hydrogen Peroxide, 30% in w	E
Hydrogen Peroxide, 90% in w	G
Hydrogen Sulfide	E
Hydroquinone, 7% in w	G
Hypochlorous Acid, 25% in w	E
Iodine, 50 ppm in w	E
Isobutyl Alcohol	F
Isooctane	X
Isopropyl Acetate	G
Isopropyl Alcohol	F
Isopropyl Ether	F
Jet Fuel, JP8	X
Kerosene	X
Ketones	X
Lacquer Solvents	G
Lactic Acid, 3-10% in w	E
Lactic Acid, 85% in w	G
Lard, Animal Fat	F
Lead Acetate, 35% in w	E
Lead Salts	E
Lemon Oil	X
Limonene-D	X
Linoleic Acid	F
Linseed Oil	F
Lubricating Oils, Petroleum	X
Magnesium Carbonate, 1% in w	E
Magnesium Chloride, 35% in w	E
Magnesium Hydroxide, 10% in dil. acid	E
Magnesium Nitrate, 50% in w	E
Magnesium Sulfate, 25% in w	E
Maleic Acid, 30% in w	F
Malic Acid, 36% in w	E
Manganese Salts	E
Mercuric Chloride, 6% in w	E
Mercuric Cyanide, 8% in w	E
Mercury	E
Mercury Salts	E
Methane Gas	E
Methyl Acetate	G
Methyl Bromide	F
Methyl Chloride	F
Methyl Ethyl Ketone (MEK)	X
Methyl Isobutyl Ketone	X
Methylene Chloride	F
Methyl Methacrylate	X
Milk	E
Mineral Oil	X
Mineral Spirits	X
Molasses	E
Monoethanolamine	F
Motor Oil	X
Naphtha	X
Naphthalene	X
Natural Gas	E
Nickel Chloride, 40% in w	E
Nickel Nitrate, 75% in w	E
Nickel Salts	E
Nickel Sulfate, 25% in w	E
Nitric Acid, 10% in w	E
Nitric Acid, 35% in w	E
Nitric Acid, 68-71% in w	X
Nitrobenzene	X
Nitromethane	X
Nitrous Acid, 10% in w	E
Nitrous Oxide	E
Oils, Animal	F
Oils, Essential	X
Oils, Hydraulic (Phosphate Ester)	X
Oils, Hydrocarbon	X
Oils, Vegetable	F
Oleic Acid	F
Oleum, 25% in w	E
Ortho Dichlorobenzene	X
Oxalic Acid, 12% in w	G
Oxygen	E
Ozone, 300pphm	E
Palmitic Acid, 100% in ether	F
Paraffins	X
Perchloric Acid, 67% in w	E
Perchloroethylene	F
Phenol, 5-10% in w	E
Phenol, 91% in w	E
Phosphoric Acid, <10% in w	E
Phosphoric Acid, 25% in w	E
Phosphoric Acid, 85% in w	E
Phosphorous Trichloride Acid	G
Photographic Solutions	G
Phthalic Acid, 9% in alc	E
Phthalic Anhydride, 9% in alc	E
Picric Acid, 1% in w	X
Plating Solutions	E
Potassium Carbonate, 55% in w	E
Potassium Cyanide, 33% in w	E
Potassium Dichromate, 5% in w	E
Potassium Hydroxide, <10% in w	E
Potassium Hypochlorite, 70% in w	E
Potassium Iodide, 56% in w	E
Potassium Permanganate, 6% in w	E
Potassium Salts	E
Propane Gas	E
Propyl Alcohol (Propanol)	F
Propylene Glycol	E
Propylene Oxide	E
Pyridine	F
Salicylic Acid, 1% in w	E
Silicone Oils	F
Silver Nitrate, 55% in w	E
Skydrol 500A	X
Soap Solutions	G
Sodium Acetate, 55% in w	E
Sodium Benzoate, 22% in w	E
Sodium Bicarbonate, 7% in w	E
Sodium Carbonate, 7% in w	E
Sodium Chlorate, 45% in w	E
Sodium Chloride, 20% in w	E
Sodium Cyanide, 30% in w	E
Sodium Fluoride, 3% in w	E
Sodium Hydroxide, 10-15% in w	E
Sodium Hydroxide, 30-40% in w	E
Sodium Hypochlorite, 5.5% in w	E
Sodium Hypochlorite, 12.2% in w	E
Sodium Nitrate, 3.5% in w	E
Sodium Salts	E
Sodium Sulfate, 5% in w	E
Sodium Sulfide, 45% in w	E
Sodium Sulfite, 10% in w	E
Stannic Chloride, 50% in w	E
Stannous Chloride, 45% in w	E
Stearic Acid, 5% in alc	F
Styrene Monomer	X
Sulfur Chloride	X
Sulfur Dioxide, Gas Dry	E
Sulfur Dioxide, Gas Wet	E
Sulfur Trioxide, Wet	G
Sulfuric Acid, 10% in w	E
Sulfuric Acid, 30% in w	E
Sulfuric Acid, 95-98% in w	X
Sulfurous Acid	E
Tannic Acid, 75% in w	G
Tartaric Acid, 56% in w	E
Tetrahydrofuran	X
Thionyl Chloride	E
Tin Salts	E
Titanium Salts	E
Toluene	X
Trichloroacetic Acid, 90% in w	G
Trichloroethane	F
Triethanolamine	F
Trichloroethylene	X
Trichloropropane	F
Tricresyl Phosphate	E
Trisodium Phosphate	E
Turpentine	X
Urea, 20% in w	E
Uric Acid	E
Vinegar	E
Vinyl Acetate	G
Water, Deionized	E
Water, Distilled	E
Xylene	X
Zinc Chloride, 80% in w	E
Zinc Salts	E

w = Water alc = Alcohol