

TQC SCRUB ABRASION AND WASHABILITY TESTER

CHEMICAL RESISTANCE

Chemical	PVC	BPT Pharmed tube	Tygon	Silicone	Viton
Acetaldehyde	D	D	D	A	D
Acetamide	D	N/A	D	B	B
Acetate Solvent	D	N/A	D	C	D
Acetic Acid	D	N/A	D	C	B
Acetic Acid 20%	D	A	D	B	B
Acetic Acid 80%	C	N/A	D	B	B
Acetic Acid, Glacial	D	N/A	D	B	D
Acetic Anhydride	D	A	D	C	D
Acetone	D	D	D	D	D
Acetone, 50% water	D	N/A	N/A	A2	D
Acetyl Bromide	D	C	D	N/A	N/A
Acetyl Chloride (dry)	C	C	D	C	A
Acetylene	A1	N/A	A1	B	A
Acrylonitrile	B1	N/A	D	D	D
Adipic Acid	A2	N/A	D	N/A	A2
Alcohols: Amyl	A2	N/A	D	D	A
Alcohols: Benzyl	D	N/A	D	N/A	A
Alcohols: Butyl	A2	N/A	A2	B	A
Alcohols: Diacetone	B1	N/A	B1	D	D
Alcohols: Ethyl	C	N/A	C	B	A
Alcohols: Hexyl	A2	N/A	A2	B	C
Alcohols: Isobutyl	A1	N/A	A1	A	A
Alcohols: Isopropyl	A1	N/A	D	A	A
Alcohols: Methyl	A1	N/A	A1	A	C
Alcohols: Propyl	A1	N/A	A1	A	A
Allyl Chloride	D	N/A	N/A	N/A	A3
Aluminum Acetate (saturated)	A	A	N/A	D	A
Aluminum Chloride	A2	A	A2	B	A
Aluminum Chloride 20%	A1	A	A1	B	A
Aluminum Fluoride	A2	N/A	A2	B	A
Aluminum Hydroxide	A2	A	A2	N/A	A
Aluminum Nitrate	B2	A	B2	B1	A2
Aluminum Potassium Sulfate 10%	A2	A	A2	A	A
Aluminum Potassium Sulfate 100%	A2	A	A2	A	A
Aluminum Sulfate	A2	A	A2	A	A
Amines	D	N/A	D	B	D
Ammonia 10%	B1	A	B1	N/A	D
Ammonia Nitrate	B	A	B	N/A	D
Ammonia, anhydrous	A2	A	B	C	D
Ammonia, liquid	A1	A	A2	N/A	D
Ammonium Acetate	A	A	A	N/A	A
Ammonium Bifluoride	A	N/A	A2	N/A	A
Ammonium Carbonate	A2	A	A2	C	A
Ammonium Chloride	A2	A	A2	C	A
Ammonium Fluoride 25%	A	N/A	N/A	N/A	A
Ammonium Hydroxide	A	A	A	A	B
Ammonium Nitrate	A2	A	A2	C	A

Chemical	PVC	BPT Pharmed tube	Tygon	Silicone	Viton
Ammonium Oxalate	A	N/A	A	N/A	N/A
Ammonium Persulfate	A2	N/A	A2	D	A
Ammonium Phosphate, Dibasic	A2	A	A2	A	A
Ammonium Phosphate, Monobasic	A	A	A	A	A
Ammonium Phosphate, Tribasic	A	A	A	A	A
Ammonium Sulfate	A2	A	A2	A	A
Ammonium Sulfite	A2	N/A	A2	N/A	D
Amyl Acetate	D	B	D	D	D
Amyl Alcohol	A2	D	D	D	A
Amyl Chloride	D	C	D	D	B1
Aniline	C1-Fair	C	D	B	A
Aniline Hydrochloride	B2	C	D	D	A
Antifreeze (glycol-based)	B	N/A	B	B	A
Antimony Trichloride	A2	N/A	N/A	N/A	A2
Aqua Regia (80% HCl, 20% HNO3)	C1-Fair	D	D	D	B
Aromatic Hydrocarbons	D	D	N/A	D	A
Arsenic Acid	A1	N/A	B	A	A2
Arsenic Salts	A	A	A	N/A	A
Asphalt	A2	N/A	N/A	D	A
Barium Carbonate	A2	A	N/A	N/A	A
Barium Chloride	A1	A	B	A	A
Barium Cyanide	D	A	N/A	N/A	A
Barium Hydroxide	A2	A	N/A	A	A
Barium Nitrate	A	A	N/A	B	A
Barium Sulfate	B1	A	N/A	A	A
Barium Sulfide	A2	A	N/A	A	A
Beer	A2	N/A	A	A	A
Beet Sugar Liquids	A2	N/A	N/A	A	A
Benzaldehyde	D	D	D	D	D
Benzene	C1-Fair	N/A	D	D	A
Benzene Sulfonic Acid	A	D	D	D	A
Benzoic Acid	A	N/A	D	B	A
Bleach	A	N/A	B	N/A	A
Bleaching Liquors	A1	A	N/A	B	A
Borax (Sodium Borate)	A1	N/A	N/A	B	A
Boric Acid	A2	A	A	A	A
Bromine	C1-Fair	D	D	D	A
Butadiene	C1-Fair	N/A	A	D	B
Butane	C1-Fair	A	A	D	A
Butanol (Butyl Alcohol)	C1-Fair	D	D	B	A
Buttermilk	A1	N/A	B	A	A
Butyl Amine	D	N/A	D	B1	D
Butyl Ether	A2	N/A	A2	D	D
Butylacetate	D	B	D	D	D
Butylene	A1	N/A	N/A	D	A
Butyric Acid	B1	B	D	D	B1
Calcium Bisulfide	A2	A	N/A	C	A

Chemical	PVC	BPT Pharmed tube	Tygon	Silicone	Viton
Calcium Bisulfite	B	A	N/A	A	A
Calcium Carbonate	A2	A	N/A	A	A
Calcium Chlorate	B2	A	N/A	N/A	A
Calcium Chloride (30% in water)	C	A	A	A	A
Calcium Chloride (saturated)	A	A	N/A	A	A
Calcium Hydroxide	B	A	B2	A	A
Calcium Hydroxide (saturated)	A	A	N/A	A	A
Calcium Hypochlorite	B1	A	A	B	A
Calcium Hypochlorite (saturated)	A	A	N/A	N/A	A
Calcium Hypochlorite 30%	A	A	N/A	N/A	A
Calcium Nitrate	A2	A	A2	B1	A2
Calcium Oxide	B	A	C	A	B
Calcium Sulfate	B2	A	N/A	N/A	A
Calcium Sulfide	A	A	N/A	N/A	A
Cane Juice	A1	N/A	A	A	A
Carbolic Acid (Phenol)	D	N/A	B	D	A
Carbon Bisulfide	D	D	D	N/A	A
Carbon Dioxide (dry)	A2	A	A	B	B
Carbon Dioxide (wet)	A1	A	A	B	B
Carbon Disulfide	D	N/A	D	N/A	A1
Carbon Monoxide	A2	N/A	A	A2	A
Carbon Tetrachloride	D	D	D	D	A
Carbonated Water	A	N/A	N/A	N/A	A
Carbonic Acid	A2	N/A	A	A	A
Catsup	A	N/A	N/A	N/A	A
Cellulose Acetate	D	N/A	N/A	N/A	D
Chloral Hydrate	A	N/A	N/A	N/A	D
Chloric Acid	A2	N/A	N/A	N/A	N/A
Chlorine (dry)	D	C	A	D	A
Chlorine Water	A2	D	N/A	D	A
Chlorine, Anhydrous Liquid	D	D	B	D	A
Chloroacetic Acid	B1	B	A	D	D
Chlorobenzene (Mono)	D	D	D	D	A
Chlorobromomethane	D	B	N/A	D	A
Chloroform	D	C	D	D	A
Chlorosulfonic Acid	D	D	D	D	D
Chromic Acid 10%	A2	A	C	C	B
Chromic Acid 30%	A1	A	B	C	A
Chromic Acid 5%	A2	A	B	C	A
Chromic Acid 50%	D	A	B	C	A
Chromium Salts	A	A	A	N/A	N/A
Cider	A	N/A	N/A	B1	A
Citric Acid	B2	N/A	N/A	A	A
Copper Chloride	A1	A	A	A1	A
Copper Cyanide	A2	A	N/A	A	A
Copper Fluoborate	A	A	A	N/A	A
Copper Nitrate	A2	A	B	N/A	A

Chemical	PVC	BPT Pharmed tube	Tygon	Silicone	Viton
Copper Sulfate >5%	A2	A	N/A	A	A
Copper Sulfate 5%	A2	A	A	A	A
Creosote	A	N/A	N/A	D	A
Cresols	D	D	D	D	A
Cresylic Acid	D	N/A	N/A	D	A
Cupric Acid	A2	N/A	A2	A1	A2
Cyclohexane	D	D	D	D	A
Cyclohexanone	D	D	D	D	D
Detergents	A	N/A	A	A	A
Dextrin	A	N/A	N/A	N/A	D
Dextrose	A	N/A	N/A	A	A
Diacetone Alcohol	D	A	N/A	D	D
Dichlorobenzene	D	N/A	N/A	D	C
Dichloroethane	D	N/A	D	N/A	C
Diesel Fuel	A1	N/A	D	D	A
Diethyl Ether	D	N/A	N/A	D	D
Diethylamine	D	N/A	A	B	A
Diethylene Glycol	C1-Fair	N/A	C1-Fair	B1	A2
Dimethyl Aniline	D	N/A	D	D	D
Dimethyl Formamide	D	N/A	D	C	C
Diphenyl Oxide	D	N/A	D	C	A
Disodium Phosphate	A	N/A	N/A	N/A	A
Dyes	B	N/A	C	N/A	A
Epsom Salts (Magnesium Sulfate)	A1	N/A	B	A	A
Ethane	A1	N/A	A	D	A
Ethanol	C	C	C	B	A
Ethanolamine	D	N/A	N/A	B	D
Ether	D	C	D	D	C
Ethyl Acetate	D	B	D	B	D
Ethyl Benzoate	D	N/A	D	D	A1
Ethyl Chloride	D	C	D	D	A
Ethyl Ether	D	N/A	D	D	D
Ethylene Bromide	D	N/A	D	D	A
Ethylene Chloride	D	N/A	N/A	D	B
Ethylene Chlorohydrin	D	A	D	C	A
Ethylene Diamine	D	N/A	N/A	A	B
Ethylene Dichloride	D	C	D	D	A
Ethylene Glycol	A	A	A	A	A
Ethylene Oxide	D	A	A	D	D
Fatty Acids	A	C	D	C	A
Ferric Chloride	A	A	N/A	B	A
Ferric Nitrate	A	A	N/A	C	A
Ferric Sulfate	A	A	N/A	B	A
Ferrous Chloride	A	A	N/A	N/A	A
Ferrous Sulfate	A	A	N/A	N/A	B
Fluoboric Acid	A	D	N/A	N/A	B
Fluorine	D	N/A	D	D	C

Chemical	PVC	BPT Pharmed tube	Tygon	Silicone	Viton
Fluosilicic Acid	D	C	A	N/A	B1
Formaldehyde 100%	A	D	D	B	D
Formaldehyde 40%	A	D	D	N/A	A
Formic Acid	A1	A	A	B	C
Freon® 11	A2	D	A	D	B
Freon® 113	B	D	N/A	D	B
Freon® 12	A2	D	A	D	B
Freon® 22	A	D	A	D	D
Freon® TF	B	D	N/A	D	B
Fruit Juice	A	N/A	A	N/A	A
Fuel Oils	A2	N/A	D	D	A
Furan Resin	A	N/A	A	D	D
Furfural	D	N/A	D	D	D
Gallic Acid	B	N/A	D	D	A
Gasoline (high-aromatic)	A	D	N/A	D	A
Gasoline, leaded, ref.	B	D	D	D	A1
Gasoline, unleaded	C2-Fair	D	D	D	A1
Gelatin	B	N/A	A	A	A
Glucose	A2	A	A	A	A
Glue, P.V.A.	C	A	C	A	B
Glycerin	A	A	A	A	A
Glycolic Acid	B	N/A	A	A	A
Grape Juice	A	N/A	B	A	A
Grease	A	N/A	A	D	A
Heptane	C1-Fair	N/A	D	D	A
Hexane	B1	N/A	D	D	A
Honey	A	N/A	A	A	A
Hydraulic Oil (Petro)	A	N/A	A	B	A
Hydraulic Oil (Synthetic)	A	N/A	A	B	A
Hydrobromic Acid 100%	A1	D	A	D	A
Hydrobromic Acid 20%	B2	D	A	D	A
Hydrochloric Acid 100%	D	A	A1	D	A
Hydrochloric Acid 20%	A2	A	A1	D	A
Hydrochloric Acid 37%	B	B	A1	B	A
Hydrochloric Acid, Dry Gas	A2	A	N/A	N/A	N/A
Hydrocyanic Acid	B	N/A	A	C	A
Hydrocyanic Acid (Gas 10%)	A	N/A	A	D	A
Hydrofluoric Acid 100%	C	N/A	D	D	B
Hydrofluoric Acid 20%	B	N/A	A	D	A
Hydrofluoric Acid 50%	B1	D	C	D	B
Hydrofluoric Acid 75%	C	N/A	C	D	B
Hydrofluosilicic Acid 100%	B1	N/A	D	D	A
Hydrofluosilicic Acid 20%	A2	N/A	A	D	A
Hydrogen Gas	A2	N/A	A	C	A
Hydrogen Peroxide 10%	A1	A	B	A	A
Hydrogen Peroxide 100%	A	B	B	B	A
Hydrogen Peroxide 30%	A1	A	B	B	A

Chemical	PVC	BPT Pharmed tube	Tygon	Silicone	Viton
Hydrogen Peroxide 50%	A1	A	B	B	A
Hydrogen Sulfide (aqua)	B1	N/A	A	C	D
Hydrogen Sulfide (dry)	A2	N/A	A	C	D
Hydroquinone	B	N/A	N/A	N/A	B
Hydroxyacetic Acid 70%	D	N/A	N/A	N/A	A
Ink	C	N/A	C	N/A	A
Iodine	A	A	A	N/A	A
Iodine (in alcohol)	A	A	N/A	N/A	N/A
Iodoform	A	N/A	C	N/A	N/A
Isooctane	A1	N/A	D	D	A1
Isopropyl Acetate	D	N/A	D	D	D
Isopropyl Ether	B	N/A	D	D	D
Isotane	A	N/A	N/A	N/A	A
Jet Fuel (JP3, JP4, JP5, JP8)	C	N/A	D	D	A
Kerosene	A2	D	D	D	A
Ketones	D	D	D	N/A	D
Lacquer Thinners	D	B	D	D	D
Lacquers	D	N/A	A	D	D
Lactic Acid	B1	A	A	A	A
Lard	A1	N/A	D	B	A
Lead Acetate	B	A	B	A	D
Lead Nitrate	A2	N/A	A2	B1	A2
Lead Sulfamate	B	N/A	N/A	B	A
Lime	B	N/A	A	N/A	A
Linoleic Acid	A2	N/A	A2	B1	B1
Lithium Chloride	D	N/A	A2	A1	A1
Lubricants	B2	N/A	B	D	A
Lye: Ca(OH)2 Calcium Hydroxide	B2	N/A	B2	A	B1
Lye: KOH Potassium Hydroxide	B	N/A	B	C	B
Lye: NaOH Sodium Hydroxide	A	N/A	B	A1	B1
Magnesium Bisulfate	A2	N/A	A2	N/A	N/A
Magnesium Carbonate	B	N/A	N/A	N/A	A
Magnesium Chloride	B	A	N/A	A	A2
Magnesium Hydroxide	A2	N/A	A	A	A
Magnesium Nitrate	A2	N/A	A	N/A	A
Magnesium Sulfate (Epsom Salts)	A1	A	A	A	A
Maleic Acid	A2	N/A	D	N/A	A
Malic Acid	A2	A	A	B	A
Manganese Sulfate	C	A	A1	A1	A2
Mayonnaise	D	N/A	D	N/A	A
Melamine	D	N/A	D	C	A
Mercuric Chloride (dilute)	A	A	D	N/A	A
Mercuric Cyanide	A	A	N/A	A	A1
Mercurous Nitrate	A	A	A2	N/A	A1
Mercury	A	A	A	N/A	A
Methane	B	A	A	D	A
Methanol (Methyl Alcohol)	A1	A	D	A	C

Chemical	PVC	BPT Pharmed tube	Tygon	Silicone	Viton
Methyl Acetate	D	N/A	D	D	D
Methyl Acetone	D	N/A	A	N/A	D
Methyl Alcohol 10%	A1	N/A	A1	A	C
Methyl Bromide	D	N/A	D	N/A	A
Methyl Butyl Ketone	A	N/A	N/A	D	D
Methyl Cellosolve	D	N/A	C	D	D
Methyl Chloride	D	C	D	D	A1
Methyl Dichloride	A	N/A	N/A	N/A	A1
Methyl Ethyl Ketone	D	D	D	D	D
Methyl Isobutyl Ketone	D	N/A	D	D	D
Methyl Isopropyl Ketone	D	N/A	N/A	C	D
Methyl Methacrylate	A	N/A	N/A	C	D
Methylamine	D	N/A	D	N/A	D
Methylene Chloride	D	N/A	D	N/A	B
Milk	A2	N/A	A	A	A
Mineral Spirits	A	N/A	D	D	A
Molasses	A	N/A	A	N/A	A
Monoethanolamine	D	N/A	D	B	D
Motor Oil	B	N/A	D	N/A	N/A
Mustard	B	N/A	B	N/A	D
Naphtha	A1	D	D	D	A
Naphthalene	D	N/A	D	D	A
Natural Gas	A	N/A	A	A	A
Nickel Chloride	A	A	B	A	A
Nickel Nitrate	A	A	A2	N/A	A2
Nickel Sulfate	A	A	A	A	A
Nitrating Acid (<1% Acid)	D	N/A	D	N/A	N/A
Nitrating Acid (<15% H2SO4)	D	N/A	D	N/A	N/A
Nitrating Acid (<15% HNO3)	D	N/A	D	N/A	N/A
Nitrating Acid (>15% H2SO4)	D	N/A	D	N/A	N/A
Nitric Acid (20%)	A1	A	D	D	A
Nitric Acid (5 to10%)	A1	A	D	C	A
Nitric Acid (50%)	B1	A	D	D	A
Nitric Acid (Concentrated)	B1	D	D	D	A
Nitrobenzene	D	D	D	D	B
Nitromethane	B2	N/A	D	D	D
Nitrous Acid	A	A	A	N/A	B
Nitrous Oxide	A	N/A	A	N/A	B
Oils: Aniline	D	C	D	D	C
Oils: Castor	A	N/A	A	A	A
Oils: Cinnamon	D	N/A	N/A	N/A	A
Oils: Citric	B	N/A	D	N/A	A
Oils: Coconut	A1	N/A	A	A	A
Oils: Cod Liver	A1	N/A	N/A	B	A
Oils: Corn	B	N/A	B	A	B
Oils: Cottonseed	B2	N/A	B	A	A
Oils: Creosote	C	N/A	N/A	D	A

Chemical	PVC	BPT Pharmed tube	Tygon	Silicone	Viton
Oils: Crude Oil	A	N/A	N/A	N/A	A
Oils: Diesel Fuel (20, 30, 40, 50)	B	N/A	A	D	A
Oils: Fuel (1, 2, 3, 5A, 5B, 6)	A2	N/A	A	C	B
Oils: Hydraulic Oil (Petro)	A	N/A	A	B	A
Oils: Hydraulic Oil (Synthetic)	A	N/A	A	B	A
Oils: Linseed	A2	C	A	A	A
Oils: Mineral	B	D	B	C	A
Oils: Olive	C	C	B	D	A
Oils: Orange	C1-Fair	C	N/A	D	A
Oils: Palm	A	C	N/A	N/A	A
Oils: Peanut	A1	C	A	A	A
Oils: Pine	D	C	D	D	A
Oils: Rosin	C1-Fair	C	N/A	N/A	A
Oils: Sesame Seed	A	C	A	N/A	A
Oils: Silicone	A	C	A	C	A
Oils: Soybean	A1	N/A	B	A	A
Oils: Transformer	B	N/A	N/A	B	A
Oils: Turbine	A1	N/A	A	D	A
Oleic Acid	C2-Fair	C	D	D	B
Oleum 100%	D	N/A	C	D	A
Oleum 25%	D	N/A	A	D	A
Oxalic Acid (cold)	B	B	B	B	A
Ozone	B	B	A	A	A
Palmitic Acid	B1	C	D	D	A1
Paraffin	B	N/A	D	N/A	B
Pentane	A	N/A	A	D	A
Perchloric Acid	C	A	N/A	D	A
Perchloroethylene	C1-Fair	C	D	D	A
Petrolatum	B	N/A	B	D	A
Phenol (10%)	C1-Fair	A	B	D	A
Phenol (Carbolic Acid)	D	A	B	D	A
Phosphoric Acid (<40%)	B	A	A	C	A
Phosphoric Acid (>40%)	B	A	A	D	A
Phosphoric Acid (crude)	B2	N/A	D	D	A
Phosphoric Acid (molten)	D	N/A	D	N/A	N/A
Phosphorus	A1	N/A	B1	N/A	N/A
Phosphorus Trichloride	D	N/A	A	N/A	A1
Photographic Developer	A	N/A	A	B	A
Photographic Solutions	A	N/A	A2	A	B1
Phthalic Anhydride	D	N/A	D	N/A	A
Picric Acid	D	A	A	D	A
Plating Solutions: Antimony Plating 130°F	A	A	N/A	N/A	A
Plating Solutions: Arsenic Plating 110°F	A	A	N/A	N/A	A
Plating Solutions: Brass: High-Speed Brass Bath 110°F	A	A	N/A	N/A	A
Plating Solutions: Brass: Regular Brass Bath 100°F	A	A	N/A	N/A	A
Plating Solutions: Bronze: Cu-Cd Bronze Bath R.T.	A	A	N/A	N/A	A
Plating Solutions: Bronze: Cu-Sn Bronze Bath 160°F	D	A	N/A	N/A	A

Chemical	PVC	BPT Pharmed tube	Tygon	Silicone	Viton
Plating Solutions: Bronze: Cu-Zn Bronze Bath 100°F	A	A	N/A	N/A	A
Plating Solutions: Cadmium: Cyanide Bath 90°F	A	A	N/A	N/A	A
Plating Solutions: Cadmium: Fluoborate Bath 100°F	A	A	N/A	N/A	A
Plating Solutions: Chromium: Barrel Chrome Bath 95°F	A	A	N/A	N/A	C
Plating Solutions: Chromium: Black Chrome Bath 115°F	A	A	N/A	N/A	C
Plating Solutions: Chromium: Chromic-Sulfuric Bath 130°F	A	A	N/A	N/A	C
Plating Solutions: Chromium: Fluoride Bath 130°F	A	A	N/A	N/A	C
Plating Solutions: Chromium: Fluosilicate Bath 95°F	A	A	N/A	N/A	C
Plating Solutions: Copper (Acid): Copper Fluoborate Bath 120°F	A	A	N/A	N/A	A
Plating Solutions: Copper (Acid): Copper Sulfate Bath R.T.	A	A	N/A	N/A	A
Plating Solutions: Copper (Cyanide): Copper Strike Bath 120°F	A	A	N/A	N/A	A
Plating Solutions: Copper (Cyanide): High-Speed Bath 180°F	D	A	N/A	N/A	A
Plating Solutions: Copper (Cyanide): Rochelle Salt Bath 150°F	D	A	N/A	N/A	A
Plating Solutions: Copper (Misc): Copper (Electroless)	A	A	D	N/A	A
Plating Solutions: Copper (Misc): Copper Pyrophosphate	A	A	N/A	N/A	A
Plating Solutions: Gold: Acid 75°F	A	A	N/A	N/A	A
Plating Solutions: Gold: Cyanide 150°F	D	A	N/A	N/A	A
Plating Solutions: Gold: Indium Sulfamate Plating R.T.	A	A	N/A	N/A	A
Plating Solutions: Gold: Neutral 75°F	A	A	N/A	N/A	A
Plating Solutions: Iron: Ferrous Am Sulfate Bath 150°F	D	A	N/A	N/A	A
Plating Solutions: Iron: Ferrous Chloride Bath 190°F	D	A	N/A	N/A	A
Plating Solutions: Iron: Ferrous Sulfate Bath 150°F	D	A	N/A	N/A	A
Plating Solutions: Iron: Fluoborate Bath 145°F	D	A	N/A	N/A	A
Plating Solutions: Iron: Sulfamate 140°F	A	A	N/A	N/A	A
Plating Solutions: Iron: Sulfate-Chloride Bath 160°F	D	A	N/A	N/A	A
Plating Solutions: Lead Fluoborate Plating	A	A	N/A	N/A	A
Plating Solutions: Nickel: Electroless 200°F	D	A	N/A	N/A	A
Plating Solutions: Nickel: Fluoborate 100-170°F	A	A	N/A	N/A	A
Plating Solutions: Nickel: High-Chloride 130-160°F	D	A	N/A	N/A	A
Plating Solutions: Nickel: Sulfamate 100-140°F	A	A	N/A	N/A	A
Plating Solutions: Nickel: Watts Type 115-160°F	D	A	N/A	N/A	A
Plating Solutions: Rhodium Plating 120°F	A	A	N/A	N/A	A
Plating Solutions: Silver Plating 80-120°F	A	A	N/A	N/A	A
Plating Solutions: Tin-Fluoborate Plating 100°F	A	A	N/A	N/A	A
Plating Solutions: Tin-Lead Plating 100°F	A	A	N/A	N/A	A
Plating Solutions: Zinc: Acid Chloride 140°F	A	A	N/A	N/A	A
Plating Solutions: Zinc: Acid Fluoborate Bath R.T.	A	A	N/A	N/A	A
Plating Solutions: Zinc: Acid Sulfate Bath 150°F	D	A	N/A	N/A	A
Plating Solutions: Zinc: Alkaline Cyanide Bath R.T.	A	A	N/A	N/A	A
Potash (Potassium Carbonate)	A	A	A	N/A	A
Potassium Bicarbonate	A	A	A	A1	A
Potassium Bromide	A	N/A	B	A1	A
Potassium Chlorate	A	N/A	B	B	A
Potassium Chloride	A	N/A	A	A	A
Potassium Chromate	A	N/A	B	N/A	A
Potassium Cyanide Solutions	A	N/A	A	A	A
Potassium Dichromate	A	N/A	N/A	A	A

Chemical	PVC	BPT Pharmed tube	Tygon	Silicone	Viton
Potassium Ferricyanide	A	N/A	B	N/A	A
Potassium Ferrocyanide	A	N/A	B	N/A	A
Potassium Hydroxide (Caustic Potash)	A1	A	B	C	B
Potassium Hypochlorite	B1	N/A	B1	N/A	N/A
Potassium Iodide	A2	A	B	N/A	A
Potassium Nitrate	A	N/A	A	A	A
Potassium Permanganate	A1	N/A	B	N/A	A
Potassium Sulfate	A2	N/A	A	A	A2
Potassium Sulfide	A2	N/A	N/A	A	A
Propane (liquefied)	A1	N/A	N/A	D	A
Propylene	B1	N/A	A	D	A1
Propylene Glycol	C1-Fair	N/A	A	A	A
Pyridine	D	C	D	D	D
Pyrogalllic Acid	A	N/A	N/A	N/A	A
Resorcinal	C	N/A	C	N/A	A1
Rosins	C1-Fair	N/A	N/A	A	A
Rum	A	N/A	N/A	A	A
Salicylic Acid	B1	N/A	B1	N/A	A1
Salt Brine (NaCl saturated)	A	N/A	N/A	A1	A2
Sea Water	A2	N/A	N/A	A1	A
Silicone	A	A	N/A	C	A
Silver Nitrate	A1	A	B	A	A
Soap Solutions	A	B	A	A	A
Soda Ash (see Sodium Carbonate)	A	A	N/A	A	A
Sodium Acetate	B1	N/A	A	D	D
Sodium Benzoate	B1	N/A	B1	N/A	A1
Sodium Bicarbonate	A2	N/A	B	A	A
Sodium Bisulfate	A2	A	B	A	A
Sodium Bisulfite	A2	A	B	A	A
Sodium Borate (Borax)	A2	N/A	N/A	A	A
Sodium Bromide	B2	N/A	B2	N/A	A1
Sodium Carbonate	A2	A	B	A	A
Sodium Chlorate	A1	B	B	C	A
Sodium Chloride	A2	N/A	B	A	A
Sodium Cyanide	A2	N/A	A	A	A2
Sodium Ferrocyanide	A	A	A	N/A	A
Sodium Fluoride	A2	N/A	D	N/A	A
Sodium Hydrosulfite	C	B	A	C	A
Sodium Hydroxide (20%)	A	A	A1	A2	C
Sodium Hydroxide (50%)	A	N/A	C	A1	D
Sodium Hydroxide (80%)	A	N/A	C	A1	D
Sodium Hypochlorite (<20%)	A	N/A	C	B	A1
Sodium Hypochlorite (100%)	B	N/A	N/A	B	A1
Sodium Iodide	A	N/A	N/A	N/A	C
Sodium Metaphosphate	A	N/A	N/A	A	A
Sodium Metasilicate	A	N/A	N/A	N/A	A
Sodium Nitrate	A2	A	B	D	A

Chemical	PVC	BPT Pharmed tube	Tygon	Silicone	Viton
Sodium Perborate	A2	N/A	N/A	B	A
Sodium Peroxide	B2	N/A	N/A	D	A
Sodium Polyphosphate	A1	N/A	N/A	D	A
Sodium Silicate	A2	A	B	A	A
Sodium Sulfate	A2	A	A	A	A
Sodium Sulfide	A2	A	B	A	A2
Sodium Sulfite	A2	A	A	A	A2
Sodium Tetraborate	A2	N/A	N/A	A	A
Sodium Thiosulfate (hypo)	A2	N/A	N/A	A	A
Stannic Chloride	A2	N/A	N/A	B	A
Stannous Chloride	A1	N/A	A	B	A
Starch	A	N/A	N/A	N/A	A
Stearic Acid	B2	C	D	B	A1
Stoddard Solvent	C1-Fair	N/A	C	D	A
Styrene	D	D	N/A	D	B
Sulfate (Liquors)	B	N/A	N/A	B	A1
Sulfur Chloride	C1-Fair	N/A	D	C	A
Sulfur Dioxide	A1	N/A	A	B	A
Sulfur Dioxide (dry)	A2	N/A	A	B	A
Sulfur Hexafluoride	B	N/A	N/A	B	N/A
Sulfur Trioxide	A	N/A	A	B	A
Sulfur Trioxide (dry)	A1	N/A	B	B	A
Sulfuric Acid (<10%)	A1	A	A	C	A
Sulfuric Acid (10-75%)	A1	A	C	D	A2
Sulfuric Acid (75-100%)	D	D	D	D	A1
Sulfuric Acid (cold concentrated)	D	D	D	D	B
Sulfuric Acid (hot concentrated)	D	D	D	D	A2
Sulfurous Acid	A2	A	B	D	A
Tannic Acid	A1	B	B	B	A
Tanning Liquors	A1	A	B	B	A
Tartaric Acid	A1	A	B	A	A
Tetrachloroethane	C	N/A	N/A	D	A
Tetrachloroethylene	D	N/A	N/A	D	A
Tetrahydrofuran	D	N/A	N/A	D	D
Tin Salts	A	A	A	B	A
Toluene (Toluol)	D	D	D	D	A
Tomato Juice	A	N/A	N/A	N/A	A
Trichloroacetic Acid	B	B	A	D	C
Trichloroethane	C	N/A	D	D	A
Trichloroethylene	D	D	D	D	A
Tricresylphosphate	D	N/A	D	C	A2
Triethylamine	B	N/A	A	N/A	D
Trisodium Phosphate	A	N/A	A	A	A
Turpentine	D	D	D	D	A
Urea	D	A	B	B	A
Uric Acid	A	A	A	N/A	N/A
Urine	A	N/A	N/A	N/A	A1

Chemical	PVC	BPT Pharmed tube	Tygon	Silicone	Viton
Varnish	D	N/A	D	D	A
Vinegar	B	N/A	A1	A	A
Vinyl Acetate	D	N/A	D	D	A1
Vinyl Chloride	D	N/A	D	N/A	A1
Water, Acid, Mine	B	N/A	N/A	B	A
Water, Deionized	A2	A	A2	N/A	A1
Water, Distilled	A2	A	B	C	A
Water, Fresh	B	A	B	B	A
Water, Salt	B	A	B	B	A
Whiskey and Wines	A2	N/A	C	A	A
White Liquor (Pulp Mill)	A2	N/A	N/A	A	A
White Water (Paper Mill)	A	N/A	N/A	N/A	A
Xylene	D	D	D	D	B
Zinc Chloride	B	D	A	B	A
Zinc Sulfate	A2	N/A	A	A	A

Explanation of Footnotes

1. Satisfactory to 72°F (22°C)
2. Satisfactory to 120°F (48°C)

Ratings - Chemical Effect

- A = Excellent.
- B = Good -- Minor Effect, slight corrosion or discoloration.
- C = Fair -- Moderate Effect, not recommended for continuous use. Softening, loss of strength, swelling may occur.
- D = Severe Effect, not recommended for ANY use.
- N/A = Information not available.