

Chemical Resistance Data

Environmental Resistance Table: E-Excellent, G-Good, L-Limited, U-Unsatisfactory

These environmental resistance ratings are based upon tests where the specimens were placed in complete submergence in the reagent listed. In many applications the Circuit Safe® and Himeline® boxes can be used in process areas where these chemicals are manufactured or used because worker safety requirements dictate that any air presence or splashing be at a very low level. Most electrical controls are located in areas suitable for worker access. If there are any questions for specific suitability in a given environment, prototype samples should be tested under actual conditions.

Chemical	Polycarbonate	FRP Fiberglass Reinforced Polyester
Acetaldehyde	U	-
Acetate Solvents-Crude	U	-
Acetate Solvents-Pure	U	-
Acetic Acid 0-20%	G	E
Acetic Acid 20-30%	G	E
Acetic Acid 30-60%	L	E
Acetic Acid 80%	U	E
Acetic Acid-Glacial	U	E
Acetic Acid Vapors	L	-
Acetic Anhydride	U	E
Acetone	U	U
Allyl Alcohol 96%	L	-
Allyl Chloride	U	U
Alum	L	-
Aluminum Chloride	L	E
Aluminum Fluoride	E	-
Aluminum Hydroxide	E	-
Aluminum Oxchloride	E	-
Aluminum Nitrate	E	-
Aluminum Sulfate	E	E
Ammonia-Dry Gas	U	L
Ammonia-Liquid	U	L
Ammonium Bifluoride	E	-
Ammonium Carbonate	U	L
Ammonium Chloride	L	E
Ammonium Hydroxide 25%	U	L
Ammonium Metaphosphate	E	-
Ammonium Nitrate	E	L
Ammonium Persulfate	E	-
Ammonium Phosphate-Neutral	G	E
Ammonium Sulfate	E	E
Ammonium Sulfide	E	E
Amyl Acetate	U	L
Amyl Alcohol	L	L
Amyl Chloride	U	U
Aniline	U	U
Aniline Chlorohydrate	U	-
Aniline Hydrochloride	U	-
Antimony Trichloride	E	E
Barium Carbonate	E	E
Barium Chloride	E	E
Barium Hydroxide	L	U
Barium Sulfate	E	E
Barium Sulfide	E	E
Benzaldehyde	U	U
Benzene	U	L
Benzene Sulfonic Acid 10%	U	E
Benzol	U	-
Bismuth Carbonate	E	-
Bleach -12 57% Active CL 2/3	L	-
Borax	L	-
Boric Acid	E	E
Brine	E	-
Bromic Acid	U	-
Bromine-Liquid	U	U
Bromine-Water	L	-

Chemical		FRP Fiberglass Reinforced Polyester
Butane	L	-
Butonal-Primary	G	-
Butonal-Secondary	G	-
Butyl Acetate	U	U
Butyl Alcohol	G	E
Butyl Phenol	U	-
Calcium Bisulfite	G	-
Calcium Carbonate	E	E
Calcium Chlorate	G	E
Calcium Chloride	E	E
Calcium Hydroxide	U	U
Calcium Hypochlorite	L	L
Calcium Nitrate	E	E
Calcium Sulfate	G	E
Carbon Bisulfide	U	L
Carbon Dioxide Gas-Wet	E	-
Carbon Dioxide	E	-
Aqueous Solution	E	E
Carbon Tetrachloride	U	E
Chlorine Water	G	E
Chlorobenzene	U	U
Chromic Acid 10%	E	E
Citric Acid (5%)	E	E
Cresol	U	U
Cresylic Acid 5%	U	-
Cyclohexanol	U	-
Cyclohexanone	U	-
Deminerlized Water	E	E
Dextrin	E	-
Dextrose	E	-
Dimethylamine	U	U
Diocylphthalate	U	E
Disodium Phosphate	-	-
Ethers	U	L
Ethyl Acetate	U	L
Ethyl Acrylate	U	-
Ethyl Alcohol	G	G
Ethyl Chloride	U	L
Ethyl Ether	U	U
Ethylene Bromide	U	-
Ethylene Chlorohydrin	U	E
Ethylene Dichloride	U	U
Ethylene Glycol	E	E
Ferric Chloride	E	E
Ferric Nitrate	L	E
Ferric Sulfate	G	E
Ferrous Chloride	G	E
Ferrous Sulfate	E	E
Formaldehyde (37%)	E	E
Formic Acid (45%)	G	L
Freon	L	-
Furfural	U	L
Gasoline-Sour	U	-
Gasoline-Refined	U	E
Glucose	E	E

Chemical Resistance Data

Environmental Resistance Table: E-Excellent, G-Good, L-Limited, U-Unsatisfactory

These environmental resistance ratings are based upon tests where the specimens were placed in complete submergence in the reagent listed. In many applications the Circuit Safe® and Himeline® boxes can be used in process areas where these chemicals are manufactured or used because worker safety requirements dictate that any air presence or splashing be at a very low level. Most electrical controls are located in areas suitable for worker access. If there are any questions for specific suitability in a given environment, prototype samples should be tested under actual conditions.

Chemical		FRP Fiberglass Reinforced Polyester
Glycerine (Glycerol)	E	E
Glycol	G	-
Heptane	G	E
Hexane	G	U
Hexanol Tertiary	L	-
Hydrochloric Acid 0-25%	G	E
Hydrochloric Acid 25-40%	U	L
Hydrofluoric Acid 10%	G	E
Hydrofluoric Acid 48%	U	-
Hydrogen Peroxide 30%	U	E
Hydrogen Peroxide 50%	U	E
Hydrogen Peroxide 90%	U	-
Hydroquinone	E	-
Kerosene	G	E
Lactic Acid 28%	E	E
Lauryl Chloride	G	E
Magnesium Carbonate	E	E
Magnesium Chloride	E	E
Magnesium Hydroxide	G	G
Magnesium Nitrate	E	-
Magnesium Sulfate	G	E
Methyl Alcohol	G	L
Methyl Chloride	U	U
Methyl Ethyl Ketone	U	E
Methylene Chloride	U	U
Mineral Oils	G	-
Naphtha	U	E
Nitric Acid 20%	E	G
Nitrobenzene	U	L
Oleic Acid	L	E
Oxalic Acid (10%)	G	E
Phenol	U	L
Phenylhydrazine	U	-
Phosphoric Acid 0-25%	L	L
Phosphoric Acid 25-50%	U	U
Phosphoric Acid 50-85%	U	U
Phosphoric Pentoxide	G	-
Photographic Chemicals	G	-
Potassium Bicarbonate	E	-
Potassium Bichromate	G	-
Potassium Borate	E	-
Potassium Bromate	E	-
Potassium Carbonate	E	L
Potassium Chloride	E	E
Potassium Chromate	E	E
Potassium Cyanide	E	-
Potassium Dichromate	E	-
Potassium Ferricyanide	E	E
Potassium Ferrocyanide	E	E
Potassium Fluoride	E	-
Potassium Hydroxide	U	L
Potassium Nitrate	E	E
Potassium Perborate	L	-

Chemical		FRP Fiberglass Reinforced Polyester
Potassium Permanganate 10%	E	E
Potassium Persulfate	E	-
Potassium Sulfate	-	E
Propane	G	-
Propyl Alcohol	E	E
Propylene Dichloride	U	-
Sodium Acetate	E	E
Sodium Bicarbonate	E	E
Sodium Bisulfate	E	-
Sodium Bisulfite	E	-
Sodium Bromide	E	E
Sodium Chlorate	E	E
Sodium Chloride	G	E
Sodium Dichromate	E	E
Sodium Ferricyanide	E	E
Sodium Ferrocyanide	E	E
Sodium Fluoride	E	-
Sodium Hydroxide	U	U
Sodium Hypochlorite 12.5%	U	L
Sodium Nitrate	E	U
Sodium Nitrite	E	E
Sodium Phosphate-Acid	L	E
Sodium Sulfate	E	E
Sodium Sulfide	U	U
Sodium Sulfite	E	E
Sodium Thiosulfate (Hypo)	L	-
Sulfur	E	E
Sulfur Dioxide-Gas Dry	-	-
Sulfur Dioxide-Gas Wet	U	E
Sulfur Dioxide-Liquid	U	-
Sulfuric Acid 0-10%	E	E
Sulfuric Acid 10-75%	L	U
Tartaric Acid	E	E
Tetrahydrofurane	U	L
Titanium Tetrachloride	G	-
Toluol or Toluene	U	-
Tributyl Phosphate	U	-
Trichloroethylene	U	U
Tricresylphosphate	U	-
Triethanolamine	U	L
Triethylamine	U	-
Trimethyl Propane	U	-
Trisodium Phosphate	L	-
Turpentine	U	E
Urea	G	L
Vinegar	G	E
Whiskey	L	-
Wines	L	-
Xylene or Xylol	U	E
Zinc Chloride	U	E
Zinc Chromate	U	-
Zinc Nitrate	L	-
Zinc Sulfate	-	E