



# Bay Port Valve & Fitting, Inc.

Industrial & Sanitary Pipe, Tubing, Valves, Fittings & Accessories

2295 S.R. 37 South, Mulberry, Florida

Phone: (863) 425-0023

Fax: (863)-425-5091

Website: [www.bayportvalve.com](http://www.bayportvalve.com)

This guide is designed to assist in the proper selection of valve and piping materials for use in corrosive services.

In using this guide, moving valve parts such as balls, stems, seats, and seals should ideally have an "A" rating. Stationary parts such as body and end connections, although they have direct contact with corrosive media, may carry a "B" rating because their corrosion resistance rate is slower.

The ratings shown are based on our experience. Actual performance may vary from the ratings indicated, as different materials will react differently to a given corrosive media. Please note that factors such as temperature, concentration of solution, agitation, and impurities will affect the corrosion rate greatly. Therefore, Bay Port Valve & Fitting, Inc., does not accept responsibility for results that vary from the ratings in this guide, or problems arising in particular applications. The user of this guide should rely only on his own experience to determine which material combinations are best suited for a particular application, and actual tests must be performed to confirm the ratings in critical applications.

<b>Rating</b>	<b>Explanation</b>
<b>A</b>	<b>Excellent</b>
<b>B</b>	<b>Good</b>
<b>C</b>	<b>Not Recommended</b>
<b>D</b>	<b>Do Not Use</b>
<b>Blank</b>	<b>No Data Available</b>

# Corrosion Data

## Chemicals

	Brass	Carbon Steel	Ductile Iron/Cast Iron	316 Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna	Delrin	EPDM/EPR	Viton	Neoprene	Grafoil	Teflon - Reinforced/Nova	Peck	UHMWPE
Acetaldehyde	C	C	C	A	A	A	A	D	A	B	C	D	A	A	A	D
Acetamine	B	B	B	B			A	A				B	A	A	A	
Acetate Solvents	B	A	B	A		A	A	D	D		D	D	A	A	A	
Acetic Acid, Aerated	D	D	D	A		A	A	C	D		C	C	A	A	A	
Acetic Acid, Air Free	B	D	D	A	A	A	A	C	D		D	C	A	A	A	
Acetic Acid, Crude	C	C	C	A	A	B	A	D	D		D	D	A	A	A	
Acetic Acid, Glacial				D			A	D		B	C	C	A	A	A	
Acetic Acid, Pure	C	D	D	A	A	D	A	D	D		D	D	A	A	A	C
Acetic Acid, 10%	C	C	C	A	A	B	A	D	B	B	D	C	A	A	A	A
Acetic Acid, 80%	C	C	C	A	A	B	A	D	D	C	D	D	A	A	A	C
Acetic Acid Vapors	D			D	B	C	A	D					A	A	A	
Acetic Anhydride	D	D	D	B	B	B	A	D	C	C	D	C	A	A	A	C
Acetone	A	A	A	A	A	A	A	D	A	A	D	D	A	A	C	A
Other Ketones	A	A	A	A	A	A	A	D	A	D	D	D	A	A	C	
Acetyl Chloride	A		D	C		B	A	D	D	D	D	D	A	A	A	
Acetylene	B	A	A	A	A	A	A	B	A	A	A	C	A	A	A	
Acid Fumes	D	D	D	B	B			C	D			B	C	A	A	
Acrylonile	A	A	C	A	B	A	A	D	D	D	C	D	A	A	A	
Air	A	A	A		A	A	A	A	A	A	A	A	B	A	A	A
Alcohol, Amyl	B	B	C	A	B	B	B	C	A	A	B	C	A	A	A	
Alcohol, Butyl	B	B	C	A	A	A	A	B	A	C	A	B	A	A	A	
Alcohol, Diacetone	A	A	A	A	A	B	A	D	A	B	D	C	A	A	A	C
Alcohol, Ethyl	B	B	B	A	A	B	A	A	A	A	A	B	A	A	A	A
Alcohols, Fatty	B	B	B	B	A	B	B	C	A	A	A	B	A	A	A	
Alcohol, Isopropyl	B	B	B	B	A	B	B	C	A	A	A	B	A	A	A	
Alcohol, Methyl	B	B	B	A	A	A	A	B	A	A	C	A	A	A	A	
Alcohol, Propyl	A	B	B	A	A	A	A	B	A	A	A	B	A	A	A	
Alumina	A			A			A	A	A	A	A	A	A	A	A	
Aluminum Acetate	D		D	A	B	C	B	D	D	A	D	D	A	A	A	A
Aluminum Chloride Dry	B	C	D	C	D	B	B	B	A	A	A	B	A	A	A	A
Aluminum Chloride Solution				D	B	B	A	B	D		A	B	A	A	A	A
Aluminum Fluoride		D	D	C		B	A	A	C	A	A	A	A	A	A	A
Aluminum Hydroxide	A	D	D	A	B	B	B	A	C	A	A	A	A	A	A	A
Aluminum Nitrate	D		D	C	B	C	B	B	D	B	D	B	B	A	A	
Aluminum Oxalate				D	A	B	A							A	A	A
Alum (Aluminum Potassium Sulfate)	D		D	B	B	C	A	B	D		B	B	A	A	A	A
Aluminum Sulfate	C	D	D	B	B	C	A	A	D	A	A	A	A	A	A	A
Amines	B	B	C	A	A	B	B	D	C	C	D		B	A	A	A
Ammonia, Alum				A	A		A	B	C			B	A	A	A	
Ammonia, Anhydrous Liquid	D	A	B	A	A	B	A	B	D	B	D	C	A	A	A	
Ammonia, Aqueous	D	A	A	A	A	B	B	B	D		A	B	A	A	A	A
Ammonia Gas, Hot	D		B	A	A	B	B	C	D	A	D	A	A	A	A	A
Ammonia Liquor				A	A		B						A	A	A	
Ammonia Solutions	D	B	B	A	A	B	B	B	D	B	D	B	A	A	A	A
Ammonium Acetate	D		B	B	A	B	B	B	D	A	D	B	A	A	A	
Ammonium Bicarbonate	B	C	B	B	B	B		B	A	A	A	A	A	A	A	A
Ammonium Bromide 5%				B	B	B	B		A				A	A	A	A
Ammonium Carbonate	B	B	B	B	B	B	B	C	A	A	B	A	A	A	A	A
Ammonium Chloride	D	D	D	C	B	B	B	B	C	A	A	A	A	A	A	A
Ammonium Hydroxide 28%	D	C	C	B	A	D	B	B	D	B	A	A	A	A	A	A

Ratings: A - Excellent B - Good C - Poor D - Do not use BLANK - No Information

# Corrosion Data

## Chemicals

	Brass	Carbon Steel	Ductile Iron/Cast Iron	316 Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna	Delrin	EPDM/EPR	Viton	Neoprene	Grafoil	Teflon - Reinforced/Nova	Peek	UHMWPE
Ammonium Hydroxide Concentrated	D	C	C	B	A	C	B	C	D	A	A	A	A	A	A	A
Ammonium Monosulfate				A	B	B	B		D					A	A	A
Ammonium Nitrate	D	D	D	A	B	D	B	A	D	A	A	A	B	A	A	A
Ammonium Oxalate 5%				A	A	B	A		A					A	A	A
Ammonium Persulfate	C			A	A	D	A	D	D	B	B	C		A	A	A
Ammonium Phosphate	D	D	D	B	B	C	A	A	C	A	A	A	A	A	A	A
Ammonium Phosphate Di-basic	C	D	D	B	B	C	B	A	A		A	A	A	A	A	
Ammonium Phosphate Tri-basic	C	D	D	B	B	C	B	A	A		A	A	A	A	A	
Ammonium Sulfate	C	C	D	B	B	B	B	A	B	A	B	A	A	A	A	A
Ammonium Sulfide	D	D	D	B	B	B		A	A	A	D	B	A	A	A	A
Ammonium Sulfite	C	C	C	A	B	D	A	B	A	B	A	A	A	A	A	
Amyl Acetate	B	C	C	B	A	B	A	D	A	B	D	D	A	A	A	A
Amyl Chloride	B		B	A	A	B	B	D	A	D	D	C	A	A	A	D
Aniline	D	C	C	B	A	B	B	D	D	C	C	D	A	A	A	A
Aniline Dyes	C	C	C	A	A	A	A	C	A	C	B	C	A	A	A	
Apple Juice	C	D	D	B	A	A		A	A	B	A	A	A	A	A	
Aqua Regia (Strong Acid)	D	D	D	B	B		D	D	D	D	D	D	D	A	C	C
Aromatic Solvents	A	C	B	A	A	B		D	A	D		D	A	A	A	
Arsenic Acid	D	D	D	B	B	D	B	A	D	B	A	A	A	A	A	A
Asphalt Emulsion	A	B	B	A	A	A	A	D	A	D	A	C	A	A	A	
Asphalt Liquid	A	B	B	A	A	A	A	C	A	D	A	C	A	A	A	
Barium Carbonate	B	B	B	B	B	B	A	B	A	A	A	A	A	A	A	A
Barium Chloride	B	C	C	B	C	B	A	A	A	A	A	A	A	A	A	A
Barium Cyanide	C		C	B	B	D		B	A	B	B	B	A	A	A	
Barium Hydrate	D			A	A	B		A					A	A	A	
Barium Hydroxide	C	C	B	B	A	B	B	A	A	B	A	A	A	A	A	A
Barium Nitrate				A	A			A	A			B	B	A	A	A
Barium Sulfate	C	C	C	A	A	B		A	A	B	A	A	A	A	A	A
Barium Sulfide	D	C	D	B	B	C		A	A	A	A	B	A	A	A	A
Beer	B	D	D	A	A	A	A	B	A	B	A	B	A	A	A	A
Beet Sugar Liquors	A	B	B	A	A	A		A	A	B	A	A	A	A	A	
Benzaldehyde	A	A	C	A	A	B	B	D	A	A	D	D	A	A	A	D
Benzene (Benzol)	B	B	B	B	A	A	B	D	C	D	B	D	A	A	A	D
Benzoic Acid	B	D	D	B	B	B	A	C	A	D	B	C	A	A	A	A
Beryllium Sulfate	B		B	B	A	B		B	A	B	B	B	A	A	A	
Bleaching Powder Wet	B			C	B	D	A	D	D	B	B	A	A	A	A	A
Blood (Meat Juices)	B		D	A	A	B		B	A	B	B	B	A	A	A	A
Borax (Sodium Borate)	D	C	C	A		A	A	B	A	A	A	B	A	A	A	A
Bordeaux Mixture				A	A				A				A	A	A	
Borax Liquors	A	C	C	B	A	A	B		A	A	A	C	A	A	A	
Boric Acid	C	D	D	B	B	B	A	B	A	B	A	B	A	A	A	A
Brake Fluid	B		B	B		B		D	B	B	D	C	A	A	A	A
Brines, Saturated	B	D	C	B	B	B	A	A	A	A	A	B	A	A	A	A
Bromine, Dry	B	D	D	D	B	A	A	D	D	D	B	D	B	A	C	
Bunker Oils (Fuel)	B	B	B	A	A	A		B	A		A	B	A	A	A	D
Butadiene	C	B	B	A	A	C	B	C	C	C	B	C	A	D	A	D
Butane	A	B	B	A	A	B	A	B	A	D	A	B	A	A	A	A
Butter				A	A			B	A				A	A	A	A
Buttermilk	D	D	D	A	A	D		A	A	B	A	A	A	A	A	B
Butyl Acetate	B		B	B	A	B	B	D	B	D	D	D	A	A	A	D

Ratings: A - Excellent B - Good C - Poor D - Do not use BLANK - No Information

# Corrosion Data

## Chemicals

	Brass	Carbon Steel	Ductile Iron/Cast Iron	316 Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna	Delrin	EPDM/EPR	Viton	Neoprene	Grafoil	Teflon - Reinforced/Nova	Peek	UHMWPE
Butylene	A	A	A	A	A	A		D	A	D	D	D	A	A	A	
Butyric Acid	C	D	D	B	B	B	A	C	A	C	C	C	A	A	A	D
Calcim Bisulfite	C	D	D	B	B	D	B	A	D	D	A	A	A	A	A	
Calcium Carbonate	C	D	D	B	B	B	B	A	A	B	A	A	A	A	A	A
Calcium Chlorate	D		C	B	B	B	B	B	D	B	B	B	B	A	A	A
Calcium Chloride	B	C	C	B	B	B	A	A	A	B	A	A	A	A	A	A
Calcium Hydroxide	C	C	C	B	B	A	A	A	A	A	A	B	A	A	A	A
Calcium Nitrate				B	B			B	C	B		B	B	A	A	A
Calcium Phosphate	C		C	B	B			B	B	B	B	B	A	A	A	A
Calcium Silicate	C		C	B	B			B	A	B	B	B	A	A	A	
Calcium Sulfate	C	C	C	B	B	B	B	A	A	B	A	A	A	A	A	A
Caliche Liquor		B		A	A			B	A			B	A	A	A	
Camphor	C		C	B	C	C		B	A	B	B	B	A	A	A	D
Cane Sugar Liquors	B		B	A	A	B		B	A	B	B	B	A	A	A	
Carbonated Beverages	B	D	B	B	B	C		B	A	B	B	B	A	A	A	
Carbonated Water	B	B	A	A	A	B	A	A	A	A	A	A	A	A	A	A
Carbon Disulfide	C	B	B	B	B	B	A	D	A	D	A	D	A	A	A	D
Carbon Dioxide, Dry	A	A	B	A	A	A	A	C	A	B	B	B	A	A	A	A
Carbolic Acid	D	D	D	B	A	B	A	B	A	B	A	B	A	A	A	
Carbon Monoxide	A		B	A	A	A	A	B	A	B	B	D		A	A	A
Carbon Tetrachloride, Dry	C	B	C	A	A	A	A	D	A	D	B	D	A	A	A	D
Carbon Tetrachloride, Wet	D	D	D	B	B	B	B	D	B	D	B	D	A	A	A	D
Casein	C		C	B	B	C		B	A	B	B	B	A	A	A	
Castor Oil	A	B	B	A	A	A	A	A	A	B	A	B	A	A	A	A
Caustic Potash				A	A	B		B	D			B	A	A	A	
Caustic Soda		B	B	A	A	A		C	D	B	B		A	A	A	
Cellulose Acetate	B		B	B	B	B	B	D	C	B	D	D	A	A	A	
China Wood Oil (Tung)	C	C	C	A	A	A	A	A	A	D	A	B	A	A	A	
Chlorinated Solvents	C	C	C	A	A	B		D	A	D	C	D	A	A	A	
Chlorinated Water				C	A	D	D	B	D		A	A	A	A	D	C
Chlorine Gas, Dry	C	B	B	B	A	A	A	C	D	D	B	D	A	A	A	D
Chlorobenzene, Dry	B	B	B	A	A	B	B	D	B	D	A	D	A	A	A	D
Chloroform, Dry	B	B	C	A	A	A	B	D	A	D	B	D	A	A	A	
Chlorophyll, Dry	B		B	B	A	B		B		B	B	B	A	A	A	
Chlorosulfonic Acid, Dry	C	B	B	B	B	B	A	D	D	D	D	D		A	D	D
Chrome Alum	C	B	C	A	A	B		B	B	B	B	B	A	A	A	A
Chromic Acid < 50%	D	D	D	C	B	C	B	D	D	C	C	D	A	A	A	A
Chromic Acid > 50%	D	D	C	C	B	D	B	D	D	C	C	D	A	A	D	
Chromium Sulfate	C		D	B	C	B	C	B	C	B	B	B	A	A	A	
Cider				A	B	A			A				A	A	A	A
Citric Acid	C	D	D	B	A	B	A	B	A	B	A	A	A	A	A	A
Citrus Juices	B	D	D	B	A	A		A	A		A	A	A	A	A	
Coca-Cola Syrup				A	A			B	A		B	B	A	A	A	A
Coconut Oil	B	C	C	B	A	B		A	A	A	A	C	A	A	A	A
Coffee	A		D	A	A	B		A	A	A	A	A	A	B	A	A
Coffee Extracts, Hot	B	C	C	A	A	A			A				A	A	A	
Coke Oven Gas	C	B	B	A	A	B	A	C	D	D	B	D	A	A	A	
Cooking Oil	B	B	B	A	A	A		A	A	D	A	B	A	A	A	
Copper Acetate	D	D	D	A	A	C	B	C	D	B	D	C	A	A	A	
Copper Carbonate				A	A				A				A	A	A	A

Ratings: A - Excellent B - Good C - Poor D - Do not use BLANK - No Information

# Corrosion Data

## Chemicals

	Brass	Carbon Steel	Ductile Iron/Cast Iron	316 Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna	Delrin	EPDM/EPR	Viton	Neoprene	Grafoil	Teflon - Reinforced/Nova	Peek	UHMWPE
Copper Cyanide	D		D	A	A	C	A	A	A	B	B	A	A	A	A	A
Copper Nitrate	D	D	D	B	B	D		A	A	A	A	A	B	A	A	A
Copper Sulfate	D	D	D	B	B	C	A	A	A	A	A	A	A	A	A	A
Corn Oil	B	C	C	B	B	B		A	A	C	A	C	A	A	A	A
Cottonseed Oil	B	C	C	B	B	B	A	A	A	C	B	B	A	A	A	A
Cresol				B	B			D	D	D	D	D	A	A	A	D
Creosote Oil	B	B	B	B	A	B	B	C	D	D	A	D	A	A	A	D
Cresylic Acid	C	C	D	B	B	B	A	D	D	D	B	D	A	A	A	A
Crude Oil, Sour	C	B	C	A	A	B	A	A	A	D	A	B	A	A	A	A
Crude Oil, Sweet	B	B	B	A	A	A	A	A	A		A	B	A	A	A	A
Cupric Nitrate				A	A	D	B		D				B	A	A	
Cutting Oils, Water Emulsions	A	B	B	A	A			A	A		A	B	A	A	A	
Cyanide Plating Solution	D		D	B	B	D		B	D	B	B	B	A	A	A	
Cyclohexane	A	A	A	A	A	B	B	C	A	D	A	D	A	A	A	C
Cyclohexanone	B			A	A	B	B	D	A			D	A	A	A	D
Detergents, Synthetic	B		B	B	A	B		B	A	B	A	B	A	A	A	A
Dextrin	B		B	B	B	B		B	A	B	B	B	A	A	A	A
Dichloroethane	B		B	B	B	B	B	D	D	D	D	D		A	A	A
Dichloroethyl Ether	B		B	B	B			D	D	D	D	D		A	A	A
Diesel Oil Fuels	A	A	A	A	A	A		A	A	D	A	C	A	A	A	A
Diethylamine	B	A	B	A	A	B		B	A	C	D	C	A	A	A	
Diethyl Benzene				B	B			D	C	D		D	A	A	A	
Diethylene Glycol	B		A	A	A	B		A	A	A	B	A	A	A	A	A
Diethyl Sulfate	B		B	B	B	B	A	C	A	C	B	C	A	A	A	A
Dimethyl Formamide	B		B	A	A	B		B	A	D	D	D	A	A	A	
Dimethyl Phthalate				D				B	C		D	B	A	A	A	
Dioxane	B		B	B	B	B		D	C	C	D	D	A	A	A	
Dipentane (Pinene)	A		A	A	A			B	A	D	B	D	A	A	A	
Disodium Phosphate				B	B	C		B	A		B	B	A	A	A	A
Dowtherm	A	B	B	A	A	A		D	A	D	A	D	A	A	A	A
Drilling Mud	B	B	B	A	A	B		A	A	A	A	C	A	A	A	
Dry Cleaning Fluids	C	B	B	A	A	B		D	A		B	D	A	A	A	
Drying Oil	C	C	B	B	B	B		A	A			B	A	A	A	
Enamel	A			A				B	A	D		B	A	A	A	
Epsom Salts (MgSo4)	B	C	C	B	B	B		A	A		A	A	A	A	A	
Ethane	B	C	C	B	B	B	A	A	A	D	A	B	A	A	A	
Ethers	B	A	B	A	A	B	A	D	C	C	C	D	A	A	A	D
Ethyl Acetate	C	B	C	B	B	B	B	D	C	C	C	D	A	A	A	C
Ethyl Acrylate	B	C	C	A	A	B	A	D	B	C	D	D	A	A	A	
Ethyl Benzene				B	A		A	C	A	D		D	A	A	A	
Ethyl Bromide	A		B	B	C	B		B	A	B	B	B	A	A	A	
Ethyl Chloride, Dry	B	B	B	A	A	B	B	C	A	C	B	C	A	B	A	D
Ethyl Chloride, Wet	C	D	D	B	B	B	B	C	A	B	B	C	A	A	A	D
Ethylene Chloride				A	A	B	B	D	A		D	D	A	A	A	
Ethylene Dichloride				B	A	B	D	D	C	D	D	D	A	A	A	D
Ethylene Glycol	B	B	B	B	A	B	A	A	A	A	A	B	A	A	A	A
Ethylene Oxide	C	B	B	B	B	B	A	D	A	D	D	D	A	A	A	C
Ethyl Ether	B		C	A	A	A	B	D	A	D	D	D	A	A	A	
Ethyl Silicate	B		B	B	A	B		B	A	B	B	C	A	A	A	
Ethyl Sulfate				B	B			B	A	C	A	B	A	A	A	

Ratings: A - Excellent B - Good C - Poor D - Do not use BLANK - No Information

# Corrosion Data

## Chemicals

	Brass	Carbon Steel	Ductile Iron/Cast Iron	316 Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna	Delrin	EPDM/EPR	Viton	Neoprene	Grafoil	Teflon - Reinforced/Nova	Peek	UHMWPE
Fatty Acids	C	D	D	A	A	B	A	B	A	D	A	B	A	A	A	A
Ferric Hydroxide				A	A	A		B	A				A	A	A	A
Ferric Nitrate	D	D	D	C	A	D	B	A	A	A	A	A	B	A	A	A
Ferric Sulfate	D	D	D	B	A	D	A	A	A	A	A	A	A	A	A	A
Ferrous Ammonium Citrate				B	B				A				A	A	A	A
Ferrous Chloride	B	D	D	D	D	D	D	A	A	A	A	A	A	A	A	A
Ferrous Sulfate	B	D	D	B	B	B	B	A	A	A	A	A	A	A	A	A
Ferrous Sulfate, Saturated	C	C	C	A	A	B	B	C	A	B	B	C	A	A	A	A
Fertilizer Solutions	C	B	B	B	B	B	A	B				B	A	A	A	A
Fish Oils	B	B	B	A	A	A		A	A	D	A	B	A	A	A	A
Flourine Gases, Dry			B	B	A	A	A	C	C	D	C	C	A	A	A	A
Flue Gases	B			B	A	B	A	A	D			B		A	D	A
Fluoboric Acid				B	A		A	C	C	C	C	C		A	D	A
Fluosilicic Acid	B	D	D	B	B	A	B	C	C	B	C	C	A	A	A	A
Formaldehyde, Cold	A	A	B	A	A	A	B	B	A	B	D	C	B	A	A	A
Formaldehyde, Hot	B	D	D	C	B	B	B	B	A			B	A	A	A	A
Formic Acid, Cold	B	D	D	B	A	B	A	D	D		B	B	A	A	A	A
Formic Acid, Hot	B	D	D	B	B	B	B	D	D		A	A	A	A	A	A
Freon Gas, Dry	B	B	B	A	A	A	B	C	A	C	C	C	A	A	A	A
Freon 11, MF, 112, BF	B		C	A	A	B	B	C	A	C	D	C	A	A	A	A
Freon 12, 13, 32, 114, 115	A		B	A	A	B	B	B	A	A	D	A	A	A	A	A
Freon 21, 31	B		C	A	A	B	B	D	A	D	D	D	A	A	A	A
Freon 22	A		B	A	A		B	D	A	D	D	B	A	A	A	A
Freon 113, TF	B		C	A	A	B	B	B	A	C	C	C	A	A	A	A
Freon, Wet	D		D	C	B	B	B	B	A	B	D	A		A	A	A
Fruit Juices	B	D	D	A	A	B		A	A	A	A	A		A	A	A
Fuel Oil	B	B	B	A	A	B		A	A	D	A	C	A	A	A	D
Fumaric Acid					A			B	A			B	A	A	A	D
Furfural	A	A	B	A	A	B	B	D	A	C	D	C	A	A	A	D
Gallic Acid 5%	C	D	D	B	B	B	B	B	A	C	A	B	A	A	A	A
Gas, Manufactured	B	B	B	B	B	A		A	A	A	A	A	A	A	A	A
Gas, Natural	B	B	B	A	B	A	A	A	A	D	A	A	A	A	A	A
Gas, Odorizers	A	B	B	B	A	B		B	A		A	B	A	A	A	A
Gasoline, Aviation	A	A	B	A	A	A	A	C	A		A	D	A	A	A	D
Gasoline, Leaded	A	A	A	A	A	B	A	C	A		A	D	A	A	A	D
Gasoline, Motor	A	A	B	A	A	A	A	C	A	D	A	D	A	A	A	D
Gasoline, Refined	B	B	B	A	A	B	A	C	A	D	A	C	A	A	A	D
Gasoline, Sour	B	B	B	A	A	C	A	C	A	D	A	D	A	A	A	D
Gasoline, Unleaded	A	A	B	A	A	A	A	C	A		A	D	A	A	A	A
Gelatin	A	D	D	A	A	B		A	A	A	A	A	A	A	A	A
Glucose	A	B	B	A	A	A	A	A	A	A	A	A	A	A	A	A
Glue	B	A	B	B	A	B	A	A	A	B	A	A	A	A	A	A
Glycerine (Glycerol)	B	C	B	B	A	A	A	C	A	A	B	D	A	A	A	A
Glycol Amine	D		B	B			D	A	C	D	D		A	A	A	A
Glycol	B	C	B	B	A	B		B	C	A	A	B	A	A	A	A
Graphite	B		C	B	A	B		B	A	B	B	B	A	A	A	A
Grease	C	A	A	A	A	B		A	A	D	A	B	A	A	A	A
Helium Gas	B		B	A	A	B	A	B	A	B	B	B	A	A	A	A
Heptane	A	B	B	A	A	B	A	A	A	D	A	B	A	A	A	C
Hexane	B	B	B	A	A	B	A	A	A	D	A	C	A	A	A	D
Hexanol, Tertiary	A	A	A	A	A	A	A	A	A	D	B	C	A	A	A	A

Ratings: A - Excellent B - Good C - Poor D - Do not use BLANK - No Information



# Corrosion Data

## Chemicals

	Brass	Carbon Steel	Ductile Iron/Cast Iron	316 Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna	Delrin	EPDM/EPR	Viton	Neoprene	Grafoil	Teflon - Reinforced/Nova	Peek	UHMWPE
Hydraulic Oil, Petroleum Base	B	A	B	A	A	A		A	A	D	A	B	A	A	A	
Hydrazine	D		D	B	B	D		C	D	B	D	C		A	A	
Hydrocyanic Acid	D	D	C	A	A	C	B	B	D	B	A			A	A	A
Hydrofluosilicic Acid	A	D	D	C	B	B	B	B	A	B	A	B	A	A	D	
Hydrogen Gas, Cold	B	B	B	A	A	A	A	B	A	B	A	B	A	A	A	A
Hydrogen Gas, Hot		B		B	A		A	B	A	B		B	A	A	A	A
Hydrogen Peroxide, Concentrated	D	D	D	B	B	D	D	D	D	B	B	D	D	A	A	C
Hydrogen Peroxide, Dilute	C	D	D	B	B	D	D	A	D	B	A	B	C	A	A	A
Hydrogen Sulfide, Dry	C	B	B	A	B	B	B	C	C	A	A	A	A	A	A	A
Hydrogen Sulfide, Wet	D	C	D	B	B	C	D	C	C	B	A	B	A	A	A	A
Hypo (Sodium Thiosulfate)	C	D	C	B	B	B	A	A	A	A	A	A	A	A	A	
Illuminating Gas	A	A	A	A	A	A		C	A	D	A	C	A	A	A	
Ink-Newsprint	C	D	D	A	A	B		A	A	B	A	B	A	A	A	A
Iodoform	C	B	C	A	A	C			A	A	A			A	A	A
Iso-Butane				B	B			B	A	D		D	A	A	A	
Iso-Octane	A	A	B	A	A	A		A	A	D	A	C	A	A	A	
Isopropyl Acetate				B	A			D	A	D		D	A	A	A	
Isopropyl Ether	A	A	B	A	A	B	A	C	A	A	D	C	A	A	A	
J P-4 Fuel	A	A	B	A	A	A	A	A	A	A		A	C	A	A	A
J P-5 Fuel	A	A	A	A	A	A	A	B	A		A	C	A	A	A	
J P-6 Fuel	A	A	A	A	A	A	A	A	A		A	C	A	A	A	
Kerosene	A	B	B	A	A	A	A	A	A	D	A	C	A	A	A	C
Ketchup	D	D	D	A	A	B		A	A	A	A	A	A	A	A	
Ketones	A	A	A	A	A	A		D	A	D	D	D	A	A	C	
Laquer (and Solvent)	A	C	C	A	A	A		D	A	D	D	D	A	A	A	
Lactic Acid, Concentrated, Cold	D	D	D	A	A	D	A	B	D	B	A	A	A	A	A	A
Lactic Acid, Concentrated, Hot	D	D	D	B	A	D	B	C	D	B	B	C	A	A	A	A
Lactic Acid, Dilute, Cold	D	D	D	A	A	C	A	B	D	B	A	A	A	A	A	A
Lactic Acid, Dilute, Hot	D	D	D	A	A	D	B	C	D		D	D	A	A	A	A
Lactose	B		C	B	B	B		B	A	B	B	C	A	A	A	
Lard	B		A	A	A			B	A	C		C	A	A	A	A
Lard Oil	B	C	C	B	A	B		A	A	B	A	B	A	A	A	A
Lead Acetate	C	D	D	B	B	B		A	A	B	B	B	A	A	A	A
Lead Sulfate	C		D	B	B	B		B	A	B	B	B	A	A	A	A
Lecithin	C		C	B	B	B		D	A	D	B	D		A	A	
Linoleic Acid	B	B	B	A	A	B		B	A	D	B	B	A	A	A	
Linseed Oil	B	A	A	A	A	B		A	A	D	A	C	A	A	A	A
Lithium Chloride	B		B	B	A	B		B	A	B	B	B	A	A	A	
LPG	A	B	B	B	B	B		A	A	D	A	B	A	A	A	
Lubricating Oil Petroleum Base	B	A	A	A	A	B		A	A	D	A	B	A	A	A	C
Ludox	D		B	B	B	B		B	B	B	B	B		A	A	
Magnesium Bisulfate	B	B	B	A	A	B		B	A	B	B	B	A	A	A	
Magnesium Bisulfide	D		D	B	B	B		B	A	B	B	B	A	A	A	
Magnesium Carbonate	B		B	A	A	B	B	B	A	B	B	B	A	A	A	A
Magnesium Chloride	B	C	D	B	B	B	A	A	A	A	A	A	A	A	A	A
Magnesium Hydroxide	B	B	B	A	A	B	B	A	A	A	A	A	A	A	A	A
Magnesium Hydroxide, Hot	D	B	B	A	A	A	B	B	A		A	B	A	A	A	A
Magnesium Nitrate				A	A	B		B	A		B	A	B	A	A	A
Magnesium Sulfate	B	B	B	A	A	B	A	A	A	A	A	A	A	A	A	A
Maleic Acid	B	B	C	B	B	B	A	B	A	D	A	B	A	A	A	A

Ratings: A - Excellent B - Good C - Poor D - Do not use BLANK - No Information

# Corrosion Data

## Chemicals

	Brass	Carbon Steel	Ductile Iron/Cast Iron	316 Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna	Delrin	EPDM/EPR	Viton	Neoprene	Grafoil	Teflon - Reinforced/Nova	Peek	UHMWPE
Maleic Anhydride	B		B	B	B	B	B	D	C	D	B	D	A	A	A	
Malic Acid	B	D	D	B	B	B		A	A		A	B	A	A	A	
Malt Beverages				A	B	A		A	A	B	A	A	A	A	A	
Maganese Carbonate				B	A			B	A				A	A	A	
Maganese Sulfate	B		D	A	A	B		B	A	B	B	B	A	A	A	
Mayonaise	D	D	D	A	A	B		A	A		A	A	A	A	A	
Meat Juices	D			A	A			B	A			B	A	A	A	A
Melamine Resins			D	C	C			B	A			B	A	A	A	
Mercuric Chloride	D	D	D	B	B	D	B	A	A	A	A	B	A	A	A	A
Mercuric Cyanide	D	D	D	A	A	C	B	A	A	A	A	B	A	A	A	A
Mercurous Nitrate	D			A	A	D			A		B		B	A	A	A
Mercury	D	A	A	A	A	B	B	A	A	A	A	A	A	A	A	A
Methane	A	B	B	A	A	B	A	A	A			B	A	A	A	
Methyl Acetate	A	B	B	A	A	B	A	D	B	B	D	D	A	A	A	
Methyl Acetone	A	A	A	A	A	A		D	B	A	D	D	A	A	C	
Methylamine	D	B	B	A	A	C	B	D	A	B	D	D	A	A	A	
Methyl Bromide 100%	C		D	B	A	B		B	A	D	B	D	A	A	A	D
Methyl Cellosolve	A	B	B	A	A	B		C	A	B	D		A	A	A	
Methyl Cellulose				A	A		B	D	A			D	A	A	A	
Methyl Chloride	B	B	B	A	A	B	A	D	A	D	B	D	A	A	A	D
Methyl Ethyl Ketone	A	A	A	A	A	A	B	D	A	B	D	D	A	A	C	D
Methylene Chloride	A	B	B	A	A	B	B	D	A	D	C	D	A	A	A	D
Methyl Formate	A	C	C	B	A	B	B	D	A	B	D		A	A	C	
Methyl Isobutyle Ketone				A	A			D	A			D	A	A	C	
Milk & Milk Products	B	D	D	A	A	B	A	A	A	A	A	A	A	A	A	B
Mineral Oils	B	B	B	A	A	A		A	A	D	A	B	A	A	A	D
Mineral Spirits	B	B	B	B	B	B		A	A		A	C	A	A	A	D
Mixed Acids (Cold)	D	C	C	B	B	C		D	D	D	B	D	A	A	A	
Molasses, Crude	A	A	A	A	A	A		A	A		A	A	A	A	A	B
Molasses, Edible	A	C	C	A	A	A		A	A		A	A	A	A	A	B
Molybdic Acid				A	A		B		A				A	A	A	
Monochloro Benzene, Dry				B	B	B		D	C			D	A	A	A	
Morpholine	B		B	A	A	B	D	D	A	B	D	D	A	A	A	
Mustard	A	B	B	A	A	A		A	A		A	A	A	A	A	
Naptha	B	B	B	B	B	B	A	B	A	D	A	C	A	A	A	D
Napthalene	B	B	B	B	B	B	B	D	A	D	A	D	A	A	A	D
Natural Gas, Sour	B	B	B	A	A	D	A	A	A	D	A	A	A	A	A	A
Nickel Ammonium Sulfate	D	D	D	A	A	C		A	C	B	D	B	A	A	A	A
Nickel Chloride	D	D	D	B	A	B	A	A	D	B	A	A	A	A	A	A
Nickel Nitrate	D	D	D	B	A	B	B	A	C	A	A	A	B	A	A	A
Nickel Sulfate	D	D	D	B	A	B	B	A	C	B	A	A	A	A	A	A
Nicotinic Acid	A	B	C	A	A	A		D	C	D	B	D	A	A	A	A
Nitric Acid 10%	D	D	D	A	A	D	B	C	D		A	B	A	A	A	A
Nitric Acid 30%	D	D	D	A	A	D		C	D	B	A	C	B	A	A	A
Nitric Acid 80%	D	D	D	C	B	D		D	D	D	B	D	C	A	D	D
Nitric Acid 100%	D	D	D	A	A	D		D	D	D	B	D	D	A	D	D
Nitric Acid Anhydrous	D	D	C	A	A	D		D	D	D	A	D	D	A	D	
Nitrobenzene	D	B	B	A	A	B	B	D	B	C	C	D	A	A	A	
Nitrogen	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A
Nitrous Acid 10%	D	D	D	B	B	D		C	B		A	A	A	A	A	

Ratings: A - Excellent B - Good C - Poor D - Do not use BLANK - No Information



# Corrosion Data

## Chemicals

	Brass	Carbon Steel	Ductile Iron/Cast Iron	316 Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna	Deirin	EPDM/EPR	Viton	Neoprene	Grafoil	Teflon - Reinforced/Nova	Peek	UHMWPE
Nitrous Gases	D	B	C	A	A	D			B				A	A	A	
Nitrous Oxide	B	B	C	B	B	D	B	B	A		A	B	A	A	A	
Oils & Fats				A	A			B	A	D			A	A	A	
Oils, Animals	A	A	A	A	A	B	A	A	A	B	B	B	A	A	A	
Oils, Petroleum Refined	B	A	A	A	A	A	A	A	A	D	A	B	A	A	A	
Oils, Petroleum Sour	C	B	C	A	A	A	A	B	A	D	A	B	A	A	A	
Oils, Water Mixture	A	B	B	A	A	A	A	A	A		A	B	A	A	A	
Olaic Acid				B	B	A		D	C		C	D	A	A	A	
Oleic Acid	B	C	C	B	A	B	B	B	C	D	A	C	A	A	A	C
Oleum	C	B	D	B	B	C	B	D	D	D	C	D		A	D	D
Oleum Spirits	D		D	B	B	D		C	D	D	A	D		A	D	
Olive Oil	C	B	B	A	A	A		A	A	B	A	B	A	A	A	A
Oxalic Acid	B	D	D	B	B	B	B	C	C	B	A	B	A	A	A	A
Oxygen	A	B	B	A	A	A	A	B	D	A	A	B	A**	A	A	A
Ozone, Dry	A	A	A	A	A	A	A	D	C	A	B	D		A	A	C
Ozone, Wet	B	C	C	A	A	A	A	D	C	B	B	D		A	A	C
Paints & Solvents	A	A	A	A	A	A		D	A	D	B	D	A	A	A	
Palmitic Acid	B	C	C	B	B	B		B	A	B	A	B	A	A	A	
Palm Oil	B	C	C	B	A	A		B	A	D	A	B	A	A	A	A
Paper Pulp	B		B	A	A	B	A	B	A	B	B	B	A	A	A	
Paraffin	A	B	B	A	A	A	A	A	A	D	A	C	A	A	A	C
Paraformaldehyde	B	B	B	B	B	B		B	A	D		B	A	A	A	
Paraldehyde				B	B			B	A	D			B	A	A	
Pentane	A	B	B	A	A	B		A	A	D	A	B	A	A	A	
Perchlorethylene, Dry	C	B	B	A	A	B	B	D	B	D	A	D	A	A	A	
Petrolatum (Vaseline Petroleum Jelly)	B	C	C	B	A	A		A	A		A	B	A	A	A	A
Phenol	B	D	D	A	A	A	A	D	C	D	B	D	A	A	A	D
Phosphate Ester	D	A	A	A	A	A		D	A	A			A	A	A	
Phosphoric Acid 10%	D	D	D	D	B	D	A	B	D	B	A	A	A	A	A	A
Phosphoric Acid 50%, Cold	D	D	D	B	B	C	B	B	D	B	A	B	A	A	A	A
Phosphoric Acid 50%, Hot	D	D	D	D	B	C	D	B	D	B	A	B	A	A	A	A
Phosphoric Acid 85%, Cold	D	B	B	A	B	A	B	C	D		B	C	A	A	B	A
Phosphoric Acid 85%, Hot	D	C	C	B	B		D	C	D			C	A	A	B	A
Phosphoric Anhydride				A	A			D	B		B	D	A	A	A	
Phosphorous Trichloride		B	C	A	A			D	D	B	B	D	A	A	A	A
Phthalic Acid	B	C	C	B	B	A	B	C	B		A	C	A	A	A	
Phthalic Anhydride	B	C	C	B	B	A	A	C	A		A	C	A	A	A	A
Picric Acid	C	D	D	B	B	D	B	C	D	B	B	A	A	A	A	A
Pineapple Juice	C	C	C	A	A	A		A	A		A	A	A	A	A	
Pine Oil	B	B	B	A	A	B		A	A	D	A	D	A	A	A	D
Pitch (Bitumen)				A	A			C	A	D		C	A	A	A	
Polysulfide Liquor	D		B	B	A	B		B	D	B	B	B	A	A	A	
Polyvinyl Acetate	B		B	B	B	B			A	B		C	A	A	A	
Polyvinyl Chloride	B		B	B	B	B			A	B		C	A	A	A	
Potassium Bicarbonate				A	A	B		B	A				A	A	A	A
Potassium Bichromate				A	A	A		B	B		B	B	A	A	A	
Potassium Bisulfate				A	A	B		B	A		A	B	A	A	A	
Potassium Bisulfide	C	D	D	B	B	D	A	A	A	B	A	A	A	A	A	
Potassium Bromide	C	D	D	A	B	B	A	A	A	B	A	A	A	A	A	A
Potassium Carbonate	B	B	B	B	B	B	B	A	A	B	A	A	A	A	A	A

Ratings: A - Excellent B - Good C - Poor D - Do not use BLANK - No Information

\* Not with Reinforced or Nova  
\*\* Do not exceed 800° F

# Corrosion Data

## Chemicals

	Brass	Carbon Steel	Ductile Iron/Cast Iron	316 Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna	Delrin	EPDM/EPR	Viton	Neoprene	Grafoil	Teflon - Reinforced/Nova	Peek	UHMWPE
Potassium Chlorate	B	B	B	B	B	C		A	A	B	A	A	C	A	A	A
Potassium Chloride	C	C	B	B	A	B	B	A	A	A	A	A	A	A	A	A
Potassium Chromate	B		B	B	B	B	A	B	A	B	B	A		A	A	A
Potassium Cyanide	D	B	B	B	B	B	B	A	A	A	A	A	A	A	A	A
Potassium Dichromate	D	C	C	B	A	B	B	A	A	B	A	A		A	A	A
Potassium Ferricyanide	D	C	C	A	B	B		A	A	B	A	A	A	A	A	A
Potassium Ferrocyanide	B	C	C	B	B	A		A	A		A	A	A	A	A	A
Potassium Hydroxide, Dilute, Cold	D	A	A	B	B	A	A	A	D		D	B	A	A*	A	A
Potassium Hydroxide to 70%, Cold	D	B	B	B	B	A	B	B	D	B	D	B	A	A*	A	A
Potassium Hydroxide, Dilute, Hot	D	B	B	B	B	A	B	B	D			B	A	A*	A	A
Potassium Hydroxide to 70%, Hot	D	A	B	B	B	A	B	C	D	A		B	A	A*	A	A
Potassium Iodide	D	C	C	B	B	C	A	A	A	B	A	A	A	A	A	A
Potassium Nitrate	B	B	B	B	B	B	B	A	A	B	A	A	B	A	A	A
Potassium Oxalate				A	A				A				A	A	A	A
Potassium Permanganate	B	B	B	B	B	B	B	A	A	B	A	A		A	A	A
Potassium Phosphate	C		C	B	B	B	B	A	A	A	A	A	A	A	A	A
Potassium Phosphate Di-basic	B	A	A	A	A	B	B	A	A	B	A	A	A	A	A	A
Potassium Phosphate Tri-basic		A	A	B	B	B		B		B		B	A	A	A	A
Potassium Sulfate	B	B	C	A	A	B	B	A	A	A	A	A	A	A	A	A
Potassium Sulfide	B	B	B	A	A	C	A	A	A	B	B	B	A	A	A	A
Potassium Sulfite	B	B	B	A	A	C	B	B	A	A	B	B	A	A	A	A
Producer Gas	B	B	B	B	B	A		A	A	D	A	B	A	A	A	A
Propane Gas	A	B	B	B	A	B	A	A	A	D	A	B	A	A	A	A
Propyl Bromide	B		B	B	A	B		B	A	B	B	B	A	A	A	A
Propylene Glycol	B	B	B	B	B	B		A	C	B	A	A	A	A	A	A
Pyridene			B	B	A		B	D	D		D	D	A	A	A	A
Pyrogallic Acid	B	B	B	B	A	B	B	A	A		A	A	A	A	A	A
Quench Oil	B	B	B	A	A			A	A		A	B	A	A	A	A
Quinine, Sulfate, Dry				A	A	B			A				A	A	A	A
Refrigerant 123	A	A	A	A	A	A	A	C	B	A	A	C	A	A**	A	D
Refrigerant 134A	A	A	A	A	A	A	A	D	A	D	D	D	A	A	A	A
Resins & Rosins	A	C	C	A	A	A	A	C	A		A	C	A	A	A	A
Resorcinol				B	B								A	A	A	A
Road Tar	A	A	A	A	A	A		B	A	D	A	C	A	A	A	A
Roof Pitch	A	A	A	A	A	A		B	A		A	C	A	A	A	A
Rosin Emulsion	B	C	C	A	A	A		D	A		B	C	A	A	A	A
R P-1 Fuel	A	A	A	A	A	A		B	A		A	C	A	A	A	A
Rubber Latex Emulsions	A	B	B	A	A				A		A		A	A	A	A
Rubber Solvents	A	A	A	A	A	A		D	C		D	C	A	A	A	A
Salad Oil	B	C	C	B	A	B		A	A	B	A	A	A	A	A	A
Salicyclic Acid	C	D	D	A	B	B	A	A	A	B	A	A	A	A	A	A
Salt (NaCl)	B	C	C	B	A	A	A	A	A		A	A	A	A	A	A
Salt Brine	B		D	B	B	B	A	A	A	B	B	D	A	A	A	A
Sauerkraut Arine				B	B				C				A	A	A	A
Sea Water	C	D	D	B	B	A	A	A	A	A	A	A	A	A	A	A
Sewage	C	C	D	B	B	B	A	A	B	B	B	C	A	A	A	A
Shellac	A	A	B	A	A	A		A	A			A	A	A	A	A
Silicone Fluids	B		B	B	B			B	A		B	B	A	A	A	C
Silver Bromide				A	A	B			D				A	A	A	A
Silver Cyanide	D		D	A	A	B		B	D		B	B	A	A	A	A
Silver Nitrate	D	D	D	A	A	D	A	C	A	A	A	C	B	A	A	A

Ratings: A - Excellent B - Good C - Poor D - Do not use BLANK - No Information

\* Not with Reinforced or Nova  
\*\* Seat Only

# Corrosion Data

## Chemicals

	Brass	Carbon Steel	Ductile Iron/Cast Iron	316 Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna	Delrin	EPDM/EPR	Viton	Neoprene	Grafoil	Teflon - Reinforced/Nova	Peek	UHMWPE
Silver Plating Sol.				A	A				D			B		A	A	
Soap Solutions (Stearates)	A	A	B	A	A	A		A	A	A	A	B	A	A	A	
Sodium Acetate	B	C	C	B	B	B	B	B	A	B	A	B	A	A	A	A
Sodium Aluminate	B	C	C	A	B	B	B	A	A	B	A	A	A	A	A	
Sodium Benzoate				B	B	B			B				A	A	A	A
Sodium Bicarbonate	B	C	C	B	A	B	B	A	B	A	A	A	A	A	A	A
Sodium Bichromate				B	B		B	D	A					A	A	
Sodium Bisulfate 10%	B	D	D	A	A	B		A	D	B	A	A	A	A	A	A
Sodium Bisulfite 10%	B	D	D	A	B	B	B	A	D	B	A	A	A	A	A	A
Sodium Borate	B	C	C	B	B	B		A	A	B	A	A	A	A	A	A
Sodium Bromide 10%	B	C	D	B	B	B	B	A	A	B	A	A	A	A	A	A
Sodium Carbonate (Soda Ash)	B	B	B	A	A	B	B	A	A	B	A	A	A	A	A	A
Sodium Chlorate	B	C	C	B	B	C	B	A	A	B	A	A	B	A	A	A
Sodium Chloride	B	C	C	B	A	A	B	A	A	B	A	A	A	A	A	A
Sodium Chromate	C	B	B	A	B	B	A	A	A	B	A	A		A	A	
Sodium Citrate				B	B				A				A	A	A	
Sodium Cyanide	D	B	B	A	A	B		A	A	B	A	A	A	A	A	
Sodium Ferricyanide				A	A	B			A				A	A	A	
Sodium Flouride	C	D	D	B	A	B		A	A	B	A	A	A	A	A	A
Sodium Hydroxide 20%, Cold	A	A	A	A	B	A	A	A	D	B	B	A	A	A*	A	A
Sodium Hydroxide 20%, Hot	A	B	B	A	A	A	B	B	D	B	C	B	A	A*	A	A
Sodium Hydroxide 50%, Cold	A	A	B	A	A	A	A	A	D	B	C	A	A	A*	A	A
Sodium Hydroxide 50%, Hot	A	B	B	A	A	B		B	D		C	B	A	A*	A	A
Sodium Hydroxide 70%, Cold	A	A	A	A	B	A		B	D	B	C	C	A	A*	A	A
Sodium Hydroxide 70%, Hot	B	B	B	A	B	B		D	D	B	C	D	A	A*	A	A
Sodium Hypochlorite (Bleach)	D	D	D	D	C	D	A		D		A		A	A	A	A
Sodium Hyposulfite				B	B	B	B		A				A	A	A	
Sodium Lactate				A	A	B			A				A	A	A	
Sodium Metaphosphate	C	B	C	B	B		A	A	B	B		A	A	A	A	
Sodium Metasilicate, Cold	B	C	C	A	A	A		B	A		B	A	A	A	A	
Sodium Metasilicate, Hot	B	D	D	A	A	A	A		A				A	A	A	
Sodium Nitrate	B	B	B	A	A	B	B	C	A	B	A	B		A	A	A
Sodium Nitrite				B	B	C	B	C	B	A	B	D	B	A	A	A
Sodium Perborate	B	B	B	B	B	B	B	C	A	A	A	B	A	A	A	
Sodium Peroxide	D	C	C	B	B	B	B	C	A	A	A	B	A	A	A	
Sodium Phosphate	C	C	C	B	B	B	B	B	A	A	A	C	A	A	A	A
Sodium Phosphate Di-basic	C	C	C	B	B	B	B	A	A	A	A	A	A	A	A	
Sodium Phosphate Tri-basic	C	C	C	B	B	B	B	B	A	A	A	B	A	A	A	
Sodium Polyphosphate				B	B	B	B	B	A			B	A	A	A	
Sodium Salicylate				A	A				A				A	A	A	
Sodium Silicate	B	B	B	B	B	B		A	A	B	A	A	A	A	A	A
Sodium Silicate, Hot	C	C	C	B	B	B			A	B			A	A	A	A
Sodium Sulfate	B	B	B	A	A	A	A	A	A	A	A	A	A	A	A	A
Sodium Sulfide	D	B	B	B	B	B	A	A	A	B	A	A	A	A	A	A
Sodium Sulfite	C		A	A	A	B	B	A	A	B	B	A	A	A	A	A
Sodium Tetraborate			A	A	A			A	A	B		A	A	A	A	
Sodium Thiosulfate	C	B	C	B	B	B	A	A	A	A	A	A	A	A	A	
Soybean Oil	B	C	C	A	A	A	A	A	B	B	A	B	A	A	A	A
Starch	B	C	C	B	A	A		A	A	C	A	A	A	A	A	A
Steam (212°F)	A	A	A	A	A	B	A	D	D	B	C	D	A	A	A	A

Ratings: A - Excellent B - Good C - Poor D - Do not use BLANK - No Information

\* Not with Reinforced or Nova

# Corrosion Data

## Chemicals

	Brass	Carbon Steel	Ductile Iron/Cast Iron	316 Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna	Delrin	EPDM/EPR	Viton	Neoprene	Grafoil	Teflon - Reinforced/Nova	Peek	UHMWPE
Stearic Acid	C	C	C	B	B	B	A	A	A	B	A	C	A	A	A	A
Styrene	A	A	B	A	A	B	A	D	A	D	B	D	A	A	A	A
Sugar Liquids	A	B	B	A	A	A	A	A	A	B	A	A	A	A	A	A
Sugar, Syrups & Jam	B		C	A	A		A		A			B	A	A	A	A
Sulfate, Black Liquor	C	C	C	B	B	B		C	C	B	C	B	A	A	A	
Sulfate, Green Liquor	C	C	C	B	B	B			A		C	B	A	A	A	
Sulfate, White Liquor	C	C	C	B	D	C		C	D		C	B	A	A	A	
Sulfur	D	C	C	B	A	B	B	D	A	B	B	C	A	A	A	A
Sulfur Chlorides	B	D	D	D	A	B		D	A	C	A	D	A	A	A	A
Sulfur Dioxide, Dry	B	B	B	A	B	B	A	D	A	A	A	D	A	A	A	A
Sulfur Dioxide, Wet	D	C		B	B	C	A	D	D	B		D	A	A	A	A
Sulfur Hexafluoride	B			A	A							B	A	A	A	
Sulfur, Molten	D	C	B	B	A	D	B	D	D	B	B	C	A	A	D	
Sulfur Trioxide	B	B	B	B	B		B	D	D		B	D	D	A	A	
Sulfur Trioxide, Dry	B	B	B	B	B	B	B	D	A	B	A	D	D	A	A	
Sulfuric Acid 0 to 77%	C	D	D	C	B	B	B	B	D		A	B	A	A	A	B
Sulfuric Acid 100%	C	C	B	A	A	D	A	D	D	C	B	D	D	A	D	D
Sulfurous Acid	D	D	D	B	B	D	B	C	C	C	A	C	A	A	A	A
Tall Oil	B	B	B	B	B	B	A	B	A	D	A	B	A	A	A	A
Tannic Acid (Tannin)	B	C	C	B	B	B	B	B	A	B	A	B	A	A	A	A
Tanning Liquors				B	B		A	B	D			D		A	A	A
Tar & Tar Oils	A	A	A	A	A	A	A	C	A	D	A	D	A	A	A	A
Tartaric Acid	B	D	D	A	A	B	B	C	A	B	A	B	A	A	A	A
Tetraethyl Lead	B	C	C	B	B	A			A				B	B	A	A
Toluol (Toluene)	A	A	A	A	A	A	A	D	C	D	B	D	A	A	A	D
Tomato Juice	C	C	C	A	A	B		A	A		A	A	A	A	A	A
Transformer Oil	B	A	B	A	A	A		A	A		A	B	A	A	A	C
Tributyl Phosphate	A	A	A	A	A	A		D	A	B	D	D	A	A	A	A
Trichlorethylene	B	B		B	B	B	A	D	A		B	D	A	A	A	D
Trichloroacetic Acid	B		D	D	B	B	A	C	D		D	D		A	A	C
Triethanolamine				B	B	B	A	C	A	B		B	A	A	A	C
Triethylamine	B			B	B		A	B	C			B	A	A	A	A
Trisodium Phosphate				B	B		A	A	A	B	B	A	A	A	A	A
Tung Oil	B	B	B	A	A	C	A	A	A	D	A	B	A	A	A	A
Turpentine	B	B	B	B	B	B	A	B	A	D	A	D	A	A	A	D
Urea	B	C	C	B	B	B	A	C	A	B	D	B	A	A	A	A
Uric Acid				A	A		A	B					A	A	A	A
Varnish	A	C	C	A	A	A	A	C	A	D	B	B	A	A	A	A
Vegetable Oils	B	B	B	A	A	B	A	A	A	D	A	B	A	A	A	A
Vinegar	B	D	D	A	A	B	A	D	B	A	D	D	A	A	A	A
Vinyl Acetate	B		B	B	B	B	A		D	A	A	B	A	A	A	A
Water, Distilled	A	D	D	A	A	A	A	C	A	B	A	B	A	A	A	A
Water, Fresh	A	C	C	A	A	A	A	C	A	B	A	B	A	A	A	A
Water, Acid Mine	D	D	D	B		D	C	B	A	A	D	A	A	A	A	A
Waxes	A	A	A	A	A	A	A	A	A	C	A	B	A	A	A	A
Whiskey & Wines	B	D	D	A	A	A	A	B	A	A	A	B	A	A	A	A
Xylene (Xylo), Dry	A	B	B	A	A	A	A	D	A	D	B	D	A	A	A	D
Zinc Bromide	B		D	B	B	B	A	B	A	B	B	B	A	A	A	A
Zinc Hydrosulfite	C	A	B	A	A	B	A	A	A	A	A	A	A	A	A	A
Zinc Sulfate	B	D	D	B	A	B	A	A	A	A	A	A	A	A	A	A

Ratings: A - Excellent B - Good C - Poor D - Do not use BLANK - No Information