

Corrosion Evaluation Data

Flexible Metal Hose and Fittings

This information may be used as a guide for the selection of flexible metal hose and of fitting material suitable for conveying the substances listed. However, this data should not be construed as advice to use or not to use without further testing or investigation, since variations in service conditions can influence resistance to corrosion. The corrosion resistance of tin-lead solder, brass brazing, and silver brazing alloys used to attach end fittings to metal hose may be considered equal to bronze in the corrosion table. Joints produced by welding end fittings to steel, stainless steel, and Monel hose may be considered equivalent to the corrosion resistance of the component parts.

Interpretation of Corrosion Data:

- 1 **Class 1 - Resistant** - Less than 0.00035 inch penetration per month
- 2 **Class 2 - Partially-Resistant** - Between 0.00035 to 0.0035 inch penetration per month
- 3 **Class 3 - Non-Resistant** - Greater than 0.0035 inch penetration per month
- * Subject to decomposition (forming HCl) in presence of moisture
- ** Subject to pitting at air line or when allowed to dry
- *** Subject to attack in presence of H₂SO₄

CHEMICAL	TEMP (°F)	304 S/ 321 SS	316 L	Carbon Steel	Bronze	Monel
Acetic Acid, 5–20% Agitated or Aerated	70	1	1	3	3	2
50%	70	1	1	3	3	3
50–80%	Boiling	3	2	3	3	3
80%	70	1	1	3	3	1
100%	70	1	1	3	3	1
100%	Boiling	3	2	3	3	2
100% @ 150 lbs	400	3	3	3	3	2
Acetic Anhydride	70	1	1	3	3	2
	Boiling	1	1	3	3	2
Acetic Acid Vapors, 30%	Hot	3	2	3	3	3
100%	Hot	3	3	3	3	2
Acetone	Boiling	1	1	3	1	1
Acetyl Chloride	Cold	2	2	3	2	1
	Boiling	2	2	3	2	3
Acetylene, Concentrated	70	1	1	1	3	1
Commercially Pure	70	1	1	1	3	1
Acid Salt Mixture: 10% H ₂ SO ₄ Sp, G, 1.07+						
10% CuSO ₄ 5 H ₂ O	Boiling	1	1	3	3	3
Alcohol, Ethyl, 70% & Boiling	70	1	1	1	1	1
Alcohol, Methyl	70	1	1	1	1	1
	150	3**	2	3	1	1
Aluminum, Molten	1400	3	3	3	3	3
Aluminum Acetate, Saturated	70	1	1	3	3	1
Boiling		1	1	3	3	1

Interpretation of Corrosion Data:

- 1 **Class 1 - Resistant** - Less than 0.00035 inch penetration per month
 2 **Class 2 - Partially-Resistant** - Between 0.00035 to 0.0035 inch penetration per month
 3 **Class 3 - Non-Resistant** - Greater than 0.0035 inch penetration per month
 * Subject to decomposition (forming HCl) in presence of moisture
 ** Subject to pitting at air line or when allowed to dry
 *** Subject to attack in presence of H₂SO₄

CHEMICAL	TEMP (°F)	304 S/ 321 SS	316 L	Carbon Steel	Bronze	Monel
Aluminum Chloride						
10% Quiescent	70	3	3	3	3	2
25% Quiescent	70	1	1	3	3	2
Aluminum Fluoride	70	3	3	3	3	2
Aluminum Hydroxide, Saturated	70	1**	1	1**	1	1
Aluminum Sulphate, 5%	150	1**	1	3	3	1
10%	70	1**	1	3	3	1
10%	Boiling	2**	1	3	3	1
Saturated	70	1**	1	3	3	1
Saturated	Boiling	2**	1	3	3	1
Aluminum Potassium Sulphate						
(Alum) 2-10%	70	1	1	3	2	2
10%	Boiling	2	1	3	3	2
Saturated	Boiling	3	2	3	3	2
Ammonia (Anhydrous)						
All Concentration	70	1	1	1	1	1
Gas	Hot	3	3	3	3	-
Ammonia Liquor	70	1	1	3	3	3
	Boiling	1	1	3	3	3
Ammonia Bicarbonate	70	1	1	3	3	2
	Hot	1	1	3	3	2
Ammonium Bromide	70	2	1	3	3	2
Ammonium Carbonate, 1% and 5%	70	1	1	1	3	3
Ammonium Chloride, 1%	70	1	1	2	3	1
10%	Boiling	1**	1**	-	3	2
28%	Boiling	2**	1**	-	3	2
50%	Boiling	2**	1**	-	3	2
Ammonium Hydroxide, All concentrations	70	1	1	2	3	3
Ammonium Monophosphate	70	1	1	2	3	2
Ammonium Nitrate						
All Concentrate Agitated	70	1	1	3	3	2
All Concentrate Aerated	70	1	1	3	3	2
All Concentrate Saturated	Boiling	1	1	3	3	2
Ammonium Oxalate, 5%	70	1	1	2	3	-
Ammonium Perchlorate, 10%	Boiling	1	1	2	3	-
Ammonium Persulphate, 5%	70	1	1	-	3	3

Interpretation of Corrosion Data:

- 1 **Class 1 - Resistant** - Less than 0.00035 inch penetration per month
- 2 **Class 2 - Partially-Resistant** - Between 0.00035 to 0.0035 inch penetration per month
- 3 **Class 3 - Non-Resistant** - Greater than 0.0035 inch penetration per month
- * Subject to decomposition (forming HCl) in presence of moisture
- ** Subject to pitting at air line or when allowed to dry
- *** Subject to attach in presence of H₂SO₄

CHEMICAL	TEMP (°F)	304 S/ 321 SS	316 L	Carbon Steel	Bronze	Monel
Ammonium Phosphate, 5%	70	1	1	2	3	3
Ammonium Sulphate						
1% Aerated or Agitated	70	1	1	3	3	2
Ammonium Sulphate						
5% Aerated & Agitated	70	1	1	3	3	2
10% Saturated	Boiling	2**	1**	3	3	2
Ammonium Sulphite	70	1	1	3	3	3
	Boiling	1	1	3	3	3
Amyl Acetate Concentrate	70	1	1	2	1	1
Amyl Chloride	70	1	1	3	2	2
Aniline, 3%	70	1	1	2	3	2
Concentrated Crude	70	1	1	1	3	2
Aniline Hydrochloride	70	3	3	-	3	3
Antimony Trichloride	70	3	3	3	3	3
Barium Carbonate	70	1	2	1	2	-
Barium Chloride, 5% & Saturated	70	1	1	3	2	2
Barium Hydroxide						
Aqueous Solution	Hot	1	1	2	-	-
Barium Nitrate						
Aqueous Solution	Hot	1	1	2	-	-
Barium Sulphate						
(BarytesDBlanc Fixe)	70	1	1	-	1	2
Barium Sulfide						
Saturated solution						
Benzene (Benzol)	70	1	1	2	1	2
	Hot	1	1	2	1	2
Benzoic Acid	70	1	1	1	1	-
Blood (Meat Juices)	Cold	1**	1	3	-	2
Borax, 5% Hot & Cold		1	1	-	-	-
Boric Acid						
5% Solution	70	1	1	3	1	2
5% Solution	Hot	1	1	3	1	2
5% Solution	Boiling	1	1**	3	1	2
Saturated Solution	70	1**	1**	3	2	2
Saturated Solution	Boiling	1**	1**	3	3	2
Bromine, Bromine Water	Boiling					

Interpretation of Corrosion Data:

- 1 **Class 1 - Resistant** - Less than 0.00035 inch penetration per month
 2 **Class 2 - Partially-Resistant** - Between 0.00035 to 0.0035 inch penetration per month
 3 **Class 3 - Non-Resistant** - Greater than 0.0035 inch penetration per month
 * Subject to decomposition (forming HCl) in presence of moisture
 ** Subject to pitting at air line or when allowed to dry
 *** Subject to attach in presence of H₂SO₄

CHEMICAL	TEMP (°F)	304 S/ 321 SS	316 L	Carbon Steel	Bronze	Monel
Buttermilk	70	3	3	3	3	3
Butyl Acetate	70	1	1	3	3	2
		1	1	2	-	2
Butyric Acid, 5%	70-150	1	1	3	2	2
Aqueous Solution Sp. G. .964	Boiling	1	1	3	2	2
Calcium Carbonate	70	1	1	1	-	1
Calcium Chlorate						
Dilute Solution	70-Hot	1	1	2	-	2
Calcium Chloride						
Dilute or Concentrated Solution	70	2**	1**	3	2	3
Calcium Chlorohypochlorite						
(Bleaching Powder) 1%	70	3	3	3	2	3
5%	70	3	3	3	2	3
Calcium Hypochlorite, 2%	70	2**	1**	3	2	3
Calcium Hydroxide, 10-20%	Boiling	1	1	3	1	1
Calcium Sulphate, Saturated	70	1	1	3	1	2
Carbonic Acid, Saturated Solution	70	1	1	3	2	1
Carbolic Acid, C.P.	70-Boiling	1	1	3	2	1
Carbonate Water		1	1	3	2	3
Carbon Bisulfide	70	1	1	2	2	2
Carbon Monoxide Gas	1400	1	1	1	3	1
Carbon Tetrachloride						
C.P.	70	1	1	2	1	1
Dry C.P.	Boiling	1	1	2	1	2
Commercial + 1% Water		3**	3	3	2	2
Carnallite, Cold Saturated Solution						
KMgCl3·6(H2O)	Boiling	3	1**	-	-	-
Cellulose		1	1	-	-	1
Chloracetic Acid	70	3	3	3	2	2
Chlorbenzol, Concentrate Pure Dry	70	1	1	2	2	2
Chloric Acid	70	3	3	3	3	3
Chlorine Gas, Dry	70	3	2	2	1	2
Moist	70	3	3	3	3	3
Chlorinated Water, Saturated		-	3**	2**	3	-
Chloroform	70	1	1	1	1	1
Chromic Acid						

Interpretation of Corrosion Data:

- 1 **Class 1 - Resistant** - Less than 0.00035 inch penetration per month
- 2 **Class 2 - Partially-Resistant** - Between 0.00035 to 0.0035 inch penetration per month
- 3 **Class 3 - Non-Resistant** - Greater than 0.0035 inch penetration per month
- * Subject to decomposition (forming HCl) in presence of moisture
- ** Subject to pitting at air line or when allowed to dry
- *** Subject to attach in presence of H₂SO₄

CHEMICAL	TEMP (°F)	304 S/ 321 SS	316 L	Carbon Steel	Bronze	Monel
5% C.P.	70	1	1	3	3	3
10%	70	3	2	3	3	3
10% C.P.	Boiling	3	2	3	3	3
50% C.P.	70	3	2	3	3	3
50% C.P.	Boiling	3	3	3	3	3
Comm 50% (Cont. SO3)	70	3	3	3	3	3
Comm 50% (Cont. SO3)	Boiling	3	3	3	3	3
Chromium Plating Bath	70	1	1	2	-	3
Citric Acid, 5% Still	70-150	1	1	3	1	2
15% Still	70	1	1	3	2	2
15% or Concentrated	Boiling	2	1	3	2	3
Coffee	Boiling	1	1	3	1	1
Copper Acetate, Saturated Solution	70	1	1	3	-	2
Copper Carbonate, Saturated Solution						
In 50% NH4OH		1	1	-	3	-
Copper Chloride						
1% Agitated	158	3	3	3	3	3
1% Agitated	70	2**	1**	3	3	3
5% Agitated	70	3**	2**	3	3	3
5% Aerated	70	3**	3**	3	3	3
Copper Cyanide, Saturated Solution	Boiling	1	1	-	3	2
Copper Nitrate						
1% Still, Agitated, & Aerated	70	1	1	3	3	3
5% Still, Agitated, & Aerated	70	1	1	3	3	3
50% Aqueous Solution	Hot	1	1	3	3	3
Copper Sulphate						
5% Agitated, Still, or Aerated	70	1	1	3	3	3
Saturated solution	Boiling	1	1	3	2	3
Creosote (Coal Tar)	Hot	1	1	2	1	2
Creosote Oil	Hot	1	1	2	2	2
Cyanogen Gas	70					
Dichloroethane, Dry	Boiling					
Dinitrochlorobenzene, Melted & Solidified	70	1	1	3	-	-
Dyewood Liquor	70	1**	1	3	-	2
Epsom Salt (Magnesium Sulfate), Hot & Cold		1	1	3	1	2
Ethers	70	1	1	2	1	2

Interpretation of Corrosion Data:

- 1 **Class 1 - Resistant** - Less than 0.00035 inch penetration per month
- 2 **Class 2 - Partially-Resistant** - Between 0.00035 to 0.0035 inch penetration per month
- 3 **Class 3 - Non-Resistant** - Greater than 0.0035 inch penetration per month
- * Subject to decomposition (forming HCl) in presence of moisture
- ** Subject to pitting at air line or when allowed to dry
- *** Subject to attach in presence of H₂SO₄

CHEMICAL	TEMP (°F)	304 S/ 321 SS	316 L	Carbon Steel	Bronze	Monel
Ethyl Acetate, Concentrated Solution	70	1	1	2	1	2
Ethyl Chloride	70	1	1	2	2	1
Ethylene Chloride	70	1	1	2	2	1
Ethylene Glycol	70	1	1	2	1	1
Ferric Chloride						
1% Solution, Still	70	2**	1**	3	3	3
1% Solution	Boiling	3	3	3	3	3
5% Solution, Agitated, Aerated	70	3	3	3	3	3
Ferric Hydroxide (Hydrated Iron Oxide)	70	1	1	3	-	2
Ferric Nitrate						
1-5% Quiescent or Agitated	70	1	1	3	3	3
1-5% Aerated	70	1	1	3	3	3
Ferric Sulphate						
1-5% Quiescent or Agitated	70	1**	1	3	3	3
1-5% Aerated	70	1**	1	3	3	3
10% Boiling		1**	1	3	3	3
Ferrous Chloride, Saturated Solution	70	3	1	3	2	-
Ferrous Sulphate, Diluted Solution	70	1	1	3	2	3
Fluorine (Gas), Moist	70	3	3	3	3	3
Formaldehyde, 40% Solution		1**	1**	2	1	1
Formic Acid, 5% Still	70	2	1	3	2	2
5% Still	150	2	1	3	2	3
Fuel Oil	Hot	1	1	2	1	2
Containing Sulphuric Acid		3	2	-	3	2
Furfural	70	1	1	2	1	2
Gallic Acid, 5%	70-150	1	1	3	-	2
Gasoline	70	1	1	2	1	1
Gelatin		1	1	3	1	1
Glue, Dry	70	1	1	1	2	2
Solution Acid	70-140	2**	1	2	3	2
Glycerine	70	1	1	2	1	1
Hydrochloric Acid, All Concentrations	70	3	3	3	3	3
Hydrocyanic Acid	70	1	1	3	3	2
Hydrofluoric Acid	70	3	3	3	3	1
Hydrofluorosilic Acid	70	3	3	3	2	2
Hydrogen Peroxide	70	1**	1	3	3	2

Interpretation of Corrosion Data:

- 1 **Class 1 - Resistant** - Less than 0.00035 inch penetration per month
- 2 **Class 2 - Partially-Resistant** - Between 0.00035 to 0.0035 inch penetration per month
- 3 **Class 3 - Non-Resistant** - Greater than 0.0035 inch penetration per month
- * Subject to decomposition (forming HCl) in presence of moisture
- ** Subject to pitting at air line or when allowed to dry
- *** Subject to attach in presence of H₂SO₄

CHEMICAL	TEMP (°F)	304 S/ 321 SS	316 L	Carbon Steel	Bronze	Monel
	Boiling	2**	1	3	3	2
Hydrogen Sulphide, Wet	70	2**	1**	3	3	3
Hyposophite Soda (Hypo)		1	1	-	-	-
Ink	70	2**	1	3	3	1
Iodine	70	3	3	3	3	3
Iodoform	70	1	1	3	-	2
Kerosene	70	1	1	2	1	2
Lactic Acid, 1%	70	1	1	3	2	2
1%	Boiling	1	1	3	3	2
5%	70	1	1	3	2	2
5%	150	2	1	3	3	2
	Boiling	2	1	3	3	2
10%	70	2	1	3	2	2
10%	150	2	1	3	2	2
	Boiling	3	2	3	3	2
Concentrated	70	2	1	3	2	2
Concentrated	Boiling	3	2	3	3	2
Lead, Molten	750	2	2	-	3	3
Lead Acetate, 5%	Boiling	1	1	3	-	2
Linseed Oil	70	1	1	2	2	1
Plus 3% H ₂ SO ₄	390	2	1	3	3	1
Magnesium Chloride						
1% Quiescent	70	1**	1	3	2	1
1% Quiescent	Hot	3	2**	3	2	1
5% Quiescent	70	1**	1	3	2	1
5% Quiescent	Hot	3	2**	3	2	1
Magnesium Oxychloride	70	3	2**	3	-	-
Magnesium Sulphate, Hot & Cold		1	1	3	1	1
Malac Acid, Hot & Cold		2	1	3	-	2
Mash	Hot	1	1	-	-	2
Mayonnaise	70	1**	1	3	-	2
Mercury		1	1	1	3	3
Mercuric Chloride, Diluted Solution	70	3	3	3	3	3
Methanol (Methyl Alcohol)		1	1	2	1	1
Milk, Fresh or Sour		1	1	3	1	2

Interpretation of Corrosion Data:

- 1 **Class 1 - Resistant** - Less than 0.00035 inch penetration per month
- 2 **Class 2 - Partially-Resistant** - Between 0.00035 to 0.0035 inch penetration per month
- 3 **Class 3 - Non-Resistant** - Greater than 0.0035 inch penetration per month
- * Subject to decomposition (forming HCl) in presence of moisture
- ** Subject to pitting at air line or when allowed to dry
- *** Subject to attach in presence of H₂SO₄

CHEMICAL	TEMP (°F)	304 S/ 321 SS	316 L	Carbon Steel	Bronze	Monel
Mixed Acids						
53% H ₂ SO ₄ + 45% HNO ₃	Cold	1	1	3	3	3
Molasses		1	1	2	1	1
Muriatic Acid	70	3	3	3	3	2
Mustard	70	1**	1**	3	-	2
Naptha, Crude	70	1	1	2	2	1
Naptha, Pure	70	1	1	2	2	1
Napthalene Sulfonic Acid	70	1	1	3	-	1
Nickel Chloride Solution	70	1**	1**	3	2	1
Nitrating Solutions, Hot & Cold		2	2	-	2	3
Nickel Sulphate, Hot & Cold		1	1	3	1	1
Niter Cake Fused		2	1	3	-	2
Nitric Acid						
5% - D50% - D70%	Boiling	1	1	3	3	3
65%	70	1	1	3	3	3
65%	Boiling	2	2	3	3	3
Concentrated	70	1	1	3	3	3
65%	Boiling	3	3	3	3	3
Fuming Concentrated	70-110	1	1	3	3	3
Fuming Concentrated	Boiling	3	3	3	3	3
Nitrous Acid, 5%	70	1	1	3	3	3
Oils, Crude, Hot & Cold		1**	1**	2	1	
Oleic Acid	70-400	1**	1	2	2	2
Oxalic Acid						
5-10%	70	1	1	3	2	2
5-10%	Boiling	1	1	3	2	2
10%	Boiling	3	3	3	2	2
25-50%	Boiling	3	3	3	2	1
Paraffin, Hot & Cold						
Phenol (See Carbonic Acid)						
Petroleum Ether		1	1	2	-	2
Phosphoric Acid						
1%	70	1*	1*	3	3	2
1%	Boiling	1*	1*	3	3	2
1% 45 lbs Pressure	284	1	1	3	3	2
5% Quiescent or Agitated	70	1	1	3	3	2

Interpretation of Corrosion Data:

- 1 **Class 1 - Resistant** - Less than 0.00035 inch penetration per month
- 2 **Class 2 - Partially-Resistant** - Between 0.00035 to 0.0035 inch penetration per month
- 3 **Class 3 - Non-Resistant** - Greater than 0.0035 inch penetration per month
- * Subject to decomposition (forming HCl) in presence of moisture
- ** Subject to pitting at air line or when allowed to dry
- *** Subject to attach in presence of H₂SO₄

CHEMICAL	TEMP (°F)	304 S/ 321 SS	316 L	Carbon Steel	Bronze	Monel
5% Aerated	70	1	1	3	3	2
10% Quiescent	70	3	1	3	3	2
10% Agitated or Aerated	70	3	2	3	3	2
10–50%	Boiling	1	1	3	3	3
80%	70	3	3	3	3	2
80%	230	3	3	3	3	3
85%	Boiling	3	3	3	3	3
Pictic Acid	70	1	1	3	3	3
Potassium Bichromate, 25%	70	1	1	–	3	2
25%	Boiling	1	1	–	3	2
Potassium Bromide	70	2**	1**	3	2	2
Potassium Carbonate, 1%	70	1	1	2	2	1
Potassium Carbonate	Hot	1	1	2	3	1
Potassium Chlorate, Saturated at 212°F	Boiling					
Potassium Chloride						
1% Quiescent	70	1**	1**	3	2	1
1% Agitate or Aerate	70	1	1	3	2	1
5% Quiescent	70	1**	1**	3	2	1
5% Agitated or Aerated	70	1	1	3	2	1
5%	Boiling	1	1	3	2	1
Potassium Chromium Sulfate						
5%	70	1**	1	3	2	–
Sp. G. 1.6	Boiling	3	3	3	3	–
Potassium Cyanide	70	1	1	2	3	2
Potassium Ferricyanide, 5–25%	70	1	1	3	–	2
25%	Boiling	1	1	3	–	2
Potassium Ferrocyanide, 5%	70	1	1	3	–	2
Potassium Hydroxide, 5%	70	1	1	2+	2	1
27%	Boiling	1	1	2+	2	1
50%	Boiling	2	1	3	3	3
Potassium Hypochlorite	70	2	2	3	3	3
Potassium Nitrate						
1–5% Still or Agitated	70	1	1	3	2	1
1–5% Aerated	70	1	1	3	2	1
50%	70	1	1	3	2	1
50%	Boiling	1	1	3	–	1

Interpretation of Corrosion Data:

- 1 **Class 1 - Resistant** - Less than 0.00035 inch penetration per month
 2 **Class 2 - Partially-Resistant** - Between 0.00035 to 0.0035 inch penetration per month
 3 **Class 3 - Non-Resistant** - Greater than 0.0035 inch penetration per month
 * Subject to decomposition (forming HCl) in presence of moisture
 ** Subject to pitting at air line or when allowed to dry
 *** Subject to attach in presence of H₂SO₄

CHEMICAL	TEMP (°F)	304 S/ 321 SS	316 L	Carbon Steel	Bronze	Monel
Molten	1022	1	1	3	–	–
Potassium Oxalate		1	1	–	–	–
Potassium Permanganate, 5%	70	1	1	2	–	3
Potassium Sulphate						
1–5% Still or Agitated	70	1	1	2	1	2
1–5% Aerated	70	1	1	2	1	2
	Hot	1	1	3	1	2
Potassium Sulphide (Salt)		1	1	3	–	–
Pyrogallic Acid		1	1	2	–	–
Quinine Bisulphate, Dry		2	2	2	–	–
Quinine Sulphate, Dry		1	1	3	2	2
Sea Water	70	1**	1**	3	2	1
Sewage		1**	1**	–	1	1
Silver Bromide		2**	1**	3	3	–
Silver Chloride		3	3	3	3	3
Silver Nitrate		1	1	3	3	3
Soap	70	1	1	2	1	1
Sodium Acetate, Moist		1**	1	3	–	2
Sodium Bicarbonate						
All Concentrations	70	1	1	3	2	1
5% Still	150	1	1	3	2	1
Sodium Bisulphate, Solution	70	1**	1**	3	2	2
Saturated Solution	70	3	3	3	2	2
2g + 1g H ₂ SO ₄ liter	68	3	1**	3	2	2
Sodium Carbonate, 5%	70–150	1	1	2	2	1
5–50%	Boiling	1	1	2	2	1
Molten	1650	3	3	3	3	1
Sodium Chloride, 5% Still	70–150	1**	1	3	2	1
20% Aerated	70	1**	1	3	2	1
Saturated	70	1**	1	3	2	1
Saturated	Boiling	2**	1	3	2	1
Sodium Fluoride, 5% Solution	70	2**	1**	3	1	1
Sodium Hydroxide	70	1	1	2	2	1
Sodium Hypochlorite, 5% Still		2**	1**	3	3	3
Sodium Hyposulphite	70	1**	1	3	–	1
Sodium Nitrate	Fused	1	1	2	1	2

Interpretation of Corrosion Data:

- 1 **Class 1 - Resistant** - Less than 0.00035 inch penetration per month
- 2 **Class 2 - Partially-Resistant** - Between 0.00035 to 0.0035 inch penetration per month
- 3 **Class 3 - Non-Resistant** - Greater than 0.0035 inch penetration per month
- * Subject to decomposition (forming HCl) in presence of moisture
- ** Subject to pitting at air line or when allowed to dry
- *** Subject to attach in presence of H₂SO₄

CHEMICAL	TEMP (°F)	304 S/ 321 SS	316 L	Carbon Steel	Bronze	Monel
Sodium Perchlorate, 10%	70-150	1	1	-	-	-
	Boiling	1	1	-	-	-
Sodium Phosphate	70	1	1	2	2	2
Sodium Sulphate, 5% Still	70	1	1	3	1	1
All Concentrations	70	1	1	3	1	1
Sodium Sulphide, Saturated		2**	1	3	3	2
Sodium Sulphite, 5%	70	1	1	3	2	2
10%	150	1	1	3	2	2
Sodium Thiosulphate						
Saturated Solution	70	1	1**	3	3	1
Acid Fixing Bath (Hypo)	70	1	1	3	3	2
25% Solution	70	1	1**	3	3	2
25% Solution	Boiling	1	1**	3	3	2
Stannic Chloride Solution						
Sp. G. 1.21	70	3	3	3	3	3
Sp. G. 1.21	Boiling	3	3	3	3	3
Stannous Chloride, Saturated		3	1	3	-	3
Steam		1	1	3	1	1
Stearic Acid	70	1	1	3	2	2
Strontium Hydroxide		1	1	-	-	-
Strontium Nitrate Solution	Hot	1	1	3	-	2
Sulphur, Moist	70	2**	1**	3	3	2
Molten	266	1	1	3	3	1
Molten	833	3	3	3	3	3
Sulphur Chloride, Dry		3	3	3	1	2
Sulphur Dioxide Gas, Moist	70	2	1	3	2	3
Gas, Dry	575	1	1	3	1	2
Sulphuric Acid						
5-10%	70	3	2	3	2	3
5-10%	Boiling	3	3	3	3	3
50%	70	3	3	3	3	3
50%	Boiling	3	3	3	3	3
Concentrated	70	1	1	3	2	3
Concentrated	Boiling	3	3	3	2	3
Concentrated	300	3	3	3	2	3
Fuming	70	3	2	3	2	3

Interpretation of Corrosion Data:

- 1 **Class 1 - Resistant** - Less than 0.00035 inch penetration per month
 2 **Class 2 - Partially-Resistant** - Between 0.00035 to 0.0035 inch penetration per month
 3 **Class 3 - Non-Resistant** - Greater than 0.0035 inch penetration per month
 * Subject to decomposition (forming HCl) in presence of moisture
 ** Subject to pitting at air line or when allowed to dry
 *** Subject to attach in presence of H₂SO₄

CHEMICAL	TEMP (°F)	304 S/ 321 SS	316 L	Carbon Steel	Bronze	Monel
Sulphurous Acid, Saturated						
Saturated - 60 lb. Pressure	250	3	2	3	2	3
Saturated - 70-125 lb. Pressure	310	3	2	3	2	3
150 lb. Pressure	375	3	2	3	2	3
Sulphurous Spray	70	3	3	3	3	3
Tannic Acid	70	1	1	3	1	3
	150	1	1	-	1	3
Tanning Liquor	70	1	1	-	-	1
Tar		1	1	2	1	2
Tartaric Acid		1	1	3	1	2
Tin	Molten	3	3	3	3	-
Trichloroacetic Acid	70	3	3	3	2	3
Trichlorethylene, Dry	70	1**	1	3	1	1
Moist		-	-	-	2	-
Varnish	70	1	1	2	1	1
Water		1	1	2	1	1
Yeast	1	1	-	3	1	
Zinc	Molten	3	3	3	3	3
Zinc Chloride, 5% Still	70	1**	1**	3	3	2
	Boiling	2**	2**	3	3	2
Zinc Cyanide, Moist	70	1	1	3	-	-
Zinc Nitrate, Solution	Hot	1	1	3	-	-
Zinc Sulphate		1	1	3	2	2