CORROSION RESISTANCE CHART

Warning: Corrosion rates may vary widely with factors such as concentration, temperature, abrasion and impurities of product. Serious injury may occur with contact of incompatible liquids with solids.

Temperature Ratings:
1 = OK to 80° F 3 = OK to 95° F
2 = OK to 125° F 4 = OK to 205° F
All others listed at ambient temperature

Compatibility Ratings
A = Excellent B = Good C = Fair to poor D = Poor Recommedation X = Not recommended - = No data available

CHEMICAL	Epoxy		Plastics															Elastomers										Metals										Non-Metals		
	Vinyl Ester VR-1	Epoxy EY-1	ABS Plastic	Acetal (Delrin)	CPVC	Epoxy	Hytrel®	HDPE	LDPE	Noryl®	Nylon	Polycarbonate	Polypropylene	PPS (Ryton)	PTFE (Teflon)	PVC	PVDF (Kynar®)	Buna N (Nitrile)	EPDM	Hypalon®	PCTFE	Natural rubber	Neoprene	Santoprene	Silicone	Tygon® (R-3603)	Viton®	304 stainless steel	316 stainless steel	Aluminum	Brass	Bronze	Carpenter 20	Cast iron	Copper	Hastelloy-C®	Titanium	Carbon graphite	Ceramic Al_2O_3	Ceramic magnet
Milk	-	-	B	A	A	A	B	-	A	A^2	A	A	A	-	A	A^2	A^2	A^1	A	A	A	A	A	A	A	A	A	A	A	A	D	A	C	D	D	A	A	A	A	A
Mine Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	A	-	-	A	-	-	B	-	-	-	-	B	B	-	-	-	-	-	A	-	-	-	-
Mineral Oils	A^4	A^4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-	A	-	-	-	A	-	-	-
Mineral Spirits	-	-	D	A	A	A	-	D	B	A	A	C	B	A	A	A	-	A	D	C	A	D	C	-	D	D	A	A	A	A	-	A	C	B	-	B	B	A	-	-
Mixed Acids (Sulfuric & Nitric)	-	-	-	A	-	-	-	-	-	-	-	-	X	-	A	-	A	X	B	-	A	-	X	-	-	-	A	-	B	X	-	-	-	X	-	B	-	-	-	-
Molasses	-	-	B	A	A	A	B	A	A	A^2	A^1	-	A	A	A	A	A	A	A^1	-	A	A	A	A	-	A	A	A	A	A	B	A	A	A	A	A	A	A	A	A
Molybdenum Disulfide	A^4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	B	-	-	-	B	-	-	A	-	-	-	-
Molybdic Acid 5%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	A	A	-	-	-	A	-	-	A	-	-	-	-
Monochloroacetic acid	-	-	-	D	-	-	D	D	-	-	D	D	-	-	A^2	-	B^1	D	C	A^2	B	-	A^1	D	-	-	C	A^1	A^1	D	B	B^1	-	D	D	A^2	A^2	B2	-	-
Monochlorobenzene	-	-	-	B	-	-	C	-	-	-	-	-	X	A	A	-	A/100%	X	-	-	A	-	X	X	-	-	A	-	A	X	-	-	X	A	-	-	-	-	-	-
Monochlorobenzene	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	B	-	-	-	B	-	-	A	A	-	-	-
Monoethanolamine	-	-	-	D	-	A	-	-	C	A	A	-	B	A	A	D	C	B^1	B	D	A	B	C	A	B	D	C	A	A	B	-	A	-	A	D	-	B	A	-	-
Monomethylether	-	-		X	-	-	-	-	-	-	-	-	-	-	A	-	-	A	-	-	A	-	B	-	-	-	A	-	-	-	-	-	-	-	-	A	-	-	-	-
Monomethylhydrazine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Monovinyl Acetylene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	A	-	-	A	-	B	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-
Morpholine	-	-	C	-	-	-	-	-	-	D	A^2	D	B^2	C	A^2	-	B^1	D	D	-	-	A^1	D	-	-	-	-	-	A^1	A^1	-	-	-	-	-	A^1	-	A^1	-	-
Motor Oil	A^4	-	C	B	A	-	B	-	C^1	A	A^2	A	A^1	A	A	B	B	A	D	-	A	-	B^1	-	-	D	-	A^1	A^2	A^1	-	A^1	-	-	-	-	A^1	A^2	A	A
Muriatic Acid	A^4	A^4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-	-	A	-	-	-	-	-	-	-	-	A	-	-	-	-
Mustard	-	-	B	A	A	A	B	-	A	A	A	A	A	-	A	B	A	B	A	-	A	B	A	A	-	B	D	A	A	B	-	A	D	D	-	A	A	A	-	-
Naphtha	A^2	A^2	D	A^1	A	A	B	-	A^1	D	A	B	B	A	B	A^1	A	A	D	D	A	D	D	D	D	D	A	A	A	A	A	A	B	B	A	B	B	A	-	-
Naphtha Coal Tar (Benzol)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	X	X	-	A	-	X	-	-	-	A	-	A	A	-	-	A	B	-	A	-	-	-	-
Naphthalene	A^4	A^2	D	A^1	D	A	B	B	C	D	A^1	-	A	A	A	D	A^2	D	D	D	A	D	D	C	D	D-	A	A	A	B^1	-	A	C	A	-	A	A	A	A	-
Naphthoic Acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	B	X	-	A	-	-	-	-	-	A	-	A	B	-	-	-	B	-	B	-	-	-	-
Natural gas	-	-	B	B	-	-	-	-	A	-	-	-	A	-	A	A	-	A	D	-	-	-	A	D	A	A	A	A	A	A	-	A	-	A	-	-	-	-	-	-
Neohexane (2, 2-dimethylbutane)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	A	-	-	A	-	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-
Neosol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	A	B	-	A	-	A	-	-	-	C	-	A	B	-	-	-	B	-	A	-	-	-	-
Neutralizer & Desmut	A^3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	B	-	-	-	B	-	-	A	D	-	-	-
Neville Acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	C	C	-	A	-	C	A	-	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel Acetate	-	-	-	-	-	-	-	-	-	-	-	-	A	-	A	-	A	B	A	-	A	-	B	A	-	-	X	-	A	B/10%	-	-	-	-	-	-	-	-	-	-
Nickel Chloride	A^4	A^4	A	A	A	A	X	B	A	A^1	C^1	A^2	A	A	A	A	A	A^1	A^1	A	A	A	A	A	A	B	A	D	B	D	D	B^1	D	D	-	A	A	A	A	-
Nickel Nitrate	-	-	A	-	A^2	A^1	-	B	A	A^2	A^1	D	A^2	A	A^2	A	A^2	A^1	A^2	D	A	A^1	A^2	-	-	A^2	A^2	B	A	D	-	A^2	-	C	-	B^2	-	-	A	A
Nickel Plating Solution	A^2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-
Nickel Sulfate	A^4	-	B	A	A	A	-	B	A	A^1	A^1	A	A	A	A	A	A	A^1	A^1	A	A	B	A	A	A	A	A	B	A/40%	D	D	B	C	D	-	B	B	A	A	-
Nicotinic Acid	-	-	-	-	A	-	-	A	A	-	-	-	A	-	A	A	A	-	A	-	-	-	A	-	-	-	-	-	B	-	-	B	-	-	A	-	-	-	-	-
Nitrana (Ammonia Fertilizer)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	B	-	-	A	-	B	-	-	-	C	-	A	-	-	-	-	-	-	-	-	-	-	-
Nitrating Acid (< 1% Acid)	-	-	-	-	-	-	-	-	-	-	-	-	C	C	A	D	-	-	-	-	-	C	A	-	-	D	-	C	A	D	-	-	D	-	-	A	-	-	-	-
Nitrating Acid (< 15% H2SO4)	-	-	-	-	-	-	-	-	-	-	-	-	C	C	A	D	-	-	-	-	-	C	A	-	-	D	-	C	C	D	-	-	D	A	-	A	A	-	-	-
Nitrating Acid (< 15% HNO3)	-	-	-	-	-	-	-	-	-	-	-	-	C	C	A	D	-	-	-	-	-	C	A	-	-	D	-	C	D	D	-	-	D	C	-	A	C	-	-	-
Nitrating Acid (> 15% H2SO4)	-	-	-	D	-	D	-	-	-	-	-	-	C	D	A	D	-	D	A^1	-	-	C	A	-	-	D	-	C	C	D	-	-	D	C	-	A	C	-	-	-
Nitric Acid	A^3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	B	-	-	-	B	-	-	B	B	-	-	-

Warning: Halogenated solvents such as 1,1,1, Trichloroethane and Methylene Chloride should not be used in Aluminum equipment. A violent explosion could occur with halogenated hydrocarbons such as Carbon Tetrachloride, Chloriform, Dichlorethylene, Methyl Chloride, Methylene Chloride, and Trichlorethylene.

Data shown is based on information that has not been independently verified. We do not guarantee its accuracy or imply or state the accuracy of these charts. Data is limited to the concentrations and temperature specified. Assume ambient temperatures where temperature restrictions are not indicated.