Corrosion Table Resistance Table

Fluid	Common Names & Formulas	METALS								PLASTICS		ELASTOMERS		
		Carbon Steel	304 SS	316 SS	Monel	Nickel	Inconel 600	Hastelloy C276	Tantalum	PVC	Teflon	Viton	Buna	Kalrez
ACETIC ACID		X	X	O	X	X	X	O	O	X	O	X	X	O
ACETIC ANHYDRIDE		X	X	X	X	X	X	O	O	X	O	X	X	O
ACETONE		X	O	O	O	O	O	O	O	X	O	X	X	O
ACETYLENE, DRY (Explosive in Cu)		O	O	O	X	O	O	O	O	X	O	X	X	O
ACROLEIN		X	L	L	L	L	L	L	O	X	O	X	X	O
ALUMINUM CHLORIDE	$AlCl_3$	X	X	X	X	X	X	O	X	L	O	O	O	O
ALUMINUM SULFATE	Alum. Al2(SO4)3	X	L	L	X	X	X	O	O	L	O	O	O	O
Ammonia Anhydrous (Wet, see Ammonium Hydroxide)	DOT Quality NH_3	O	O	O	X	X	X	L	X	X	O	X	X	O
AMMONIUM CHLORIDE	Sal Ammoniac NH_4Cl	X	X	X	X	X	X	O	O	X	O	O	X	O
AMMONIUM HYDROXIDE (*316SS <70°F)	Ammonia Water NH_3 in Water	X	L	O*	X	X	X	L	X	O	O	X	O	O
AMMONIUM NITRATE	Norway Saltpeter NH_4NO_3	X	O	O	X	X	X	L	O	O	O	X	O	O
AMMONIUM SULFATE	$(NH_4)_2SO_4$	X	X	L	X	L	X	L	O	O	O	X	O	O
AMYL ACETATE		L	O	O	X	X	X	O	O	X	O	X	X	O
ANILINE		X	O	O	L	L	L	X	O	X	O	X	X	O
BEER		X	O	O	X	X	X	X	X	O	O	X	O	X
BENZENE	C_6H_6	L	O	O	O	O	O	X	O	X	O	X	X	O
BENZIDINE		L	L	L	L	L	L	L	O	X	X	X	X	O
BENZOIC ACID		X	L	L	L	L	X	O	O	X	O	X	X	O
BLACK LIQUOR		X	X	X	X	X	X	X	X	X	O	O	X	X
BORIC ACID	H_3BO_4	X	O	O	L	L	L	O	O	O	O	O	O	O
BROMINE, DRY (< 57 PPM H_2O)	Br	X	X	X	L	L	O	L	O	X	X	O	X	O
BROMOBENZENE		X	O	O	L	L	L	O	O	X	O	O	X	O
BUTADIENE		O	O	O	O	O	O	O	O	X	O	X	X	O
BUTANE	C_4H_{10}	O	O	O	O	O	O	O	O	X	O	O	O	O

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		Carbon Steel	304 SS	316 SS	Monel	Nickel	Inconel 600	Hastelloy C276	Tantalum	PVC	Teflon	Viton	Buna	Kalrez
BUTYL ALCOHOL	Butanol	X	O	O	O	O	O	O	O	X	O	O	O	O
BUTYRIC ACID		X	L	L	X	X	X	O	O	X	O	X	X	O
CALCIUM BISULFITE	$Ca(HSO_3)_2$	X	X	O	X	X	X	X	X	O	O	O	X	O
CALCIUM CHLORIDE	$CaCl_2$	X	X	X	X	X	O	O	O	O	O	O	O	O
CALCIUM HYDROXIDE	Slaked Lime $Ca(OH)_2$	X	X	L	X	X	X	O	O	O	O	O	O	O
CALCIUM Hypochlorite	$Ca(OCl)_2$	X	X	X	X	X	X	L	O	O	O	O	X	O
CARBON DIOXIDE, WET	CO_2	X	O	O	O	X	O	O	O	O	O	O	O	O
CARBON MONOXIDE	CO	O	O	O	O	X	O	O	O	X	O	O	O	O
CHLORINATED WATER (<10ppm Chlorine)		X	O	O	O	X	X	O	O	O	O	O	X	O
CHLORINATED WATER (To Saturation)		X	X	X	X	X	X	O	O	X	X	X	X	O
CHLORINE, DRY (*See Page 4 in Text)	Cl_2	X	X	X	X	L	X	L	O	X	X	O	X	O
CHLORINE, MOIST		X	X	X	X	X	X	L	O	X	X	X	X	X
CHLOROACETIC ACID		X	X	X	L	X	X	L	O	X	X	X	X	O
CHLOROFORM, DRY	Trichloromethane $CHCl_3$	X	O	O	O	O	O	X	O	X	O	X	X	O
CHROMIC ACID	Chromium Trioxide H_2CrO_4	X	X	X	X	X	X	X	O	X	O	O	X	O
CITRIC ACID		X	L	O	L	L	L	O	O	O	O	O	O	O
COPPER NITRATE	Cupric Nitrate $Cu(NO_3)_2$	X	O	O	X	X	X	X	O	X	O	O	O	O
COPPER SULFATE	Cupric Sulfate $CuSO_4$	X	L	L	X	X	X	O	O	O	O	O	O	O
CREOSOTE	Coal-Tar	L	L	L	L	L	L	O	O	X	O	O	X	O
CRESOL		X	O	O	O	O	O	O	O	X	O	X	X	O
CRUDE OIL - Sour (See Warning Pg. 4 text)		X	X	X	O	X	X	O	O	X	O	X	X	X
CRUDE OIL - Sweet, Low Sulfur		L	O	O	O	O	O	O	O	O	O	O	X	O
CUPRIC CHLORIDE		X	X	X	X	X	X	X	O	O	O	O	O	O
DOWTHERM A		O	O	O	O	O	O	O	O	X	O	X	X	O

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		Carbon Steel	304 SS	316 SS	Monel	Nickel	Inconel 600	Hastelloy C276	Tantalum	PVC	Teflon	Viton	Buna	Kalrez
ETHYL ACETATE		L	O	O	O	O	O	O	O	X	O	X	X	O
ETHYL ALCOHOL	Ethanol C_2H_5OH	O	O	O	O	O	O	O	O	O	O	O	O	O
ETHYL CHLORIDE, DRY		O	X	X	O	O	O	O	O	X	O	O	O	O
ETHYLENE GLYCOL	Glycol	X	O	O	L	L	L	O	O	O	O	O	O	O
ETHYLENE OXIDE	ETO	O	O	O	O	O	O	X	O	X	O	X	X	O
FERRIC CHLORIDE (*Viton <170°F)	$FeCl_3$	X	X	X	X	X	X	X	O	O	O	O*	O	O
FERRIC SULFATE (*Viton <170°F)	$Fe_2(SO_4)_3$	X	O	O	X	X	O	O	O	O	O	O*	O	O
FERROUS CHLORIDE (*Viton <170°F)	$FeCl_2$	X	X	X	X	X	X	L	O	O	O	O*	O	O
FERROUS SULFATE (*Viton <170°F)	$FeSO_4$	X	X	X	X	X	X	L	O	O	O	O*	O	O
FLUORINE, GAS DRY	F	X	X	X	O	O	O	X	X	X	X	X	X	X
FLUOROSILICIC ACID	Fluosilicic Acid H_2SiF_6	X	X	X	X	X	X	X	X	O	X	O	O	O
FORMALDEHYDE (*316SS <90%)		X	X	O*	O	O	O	X	O	X	O	X	X	O
FORMIC ACID		X	X	X	X	X	X	L	O	X	O	X	X	O
FURFURAL		X	O	X	L	L	X	O	O	X	O	X	X	O
GASOLINE (*Flowing-Phos Bronze)		X	L	O	X	X	L	O	O	X	O	O	O	O
GLUCOSE		X	O	O	O	O	O	O	O	O	O	O	O	O
GLYCERINE	Glycerol	O	O	O	O	O	O	O	O	O	O	O	O	O
HEXANE, DRY		O	O	O	O	O	O	O	O	X	O	O	O	O
HYDRAZINE		X	O	X	X	X	X	X	X	X	O	X	X	O
HYDROBROMIC ACID	HBr	X	X	X	X	X	X	X	O	X	X	O	X	O
HYDROCHLORIC ACID	HCl, Muriatic Acid	X	X	X	X	X	X	X	O	X	X	O	X	O
HYDROFLUORIC ACID (No Air)	HF	X	X	X	X	X	X	X	X	X	X	O	X	X
HYDROFLUOSILIC ACID	Fluosilicic Acid	X	X	X	X	X	X	X	X	O	X	O	O	O
HYDROGEN	H_2	X	X	O	X	X	X	X	X	X	X	O	O	O

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Corrosion Table Resistance Table

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		Carbon Steel	304 SS	316 SS	Monel	Nickel	Inconel 600	Hastelloy C276	Tantalum	PVC	Teflon	Viton	Buna	Kalrez
Hydrogen Peroxide (*Neoprene <110°F)	H_2O_2	X	L	O	X	X	X	X	O	X	O	X	X	O
HYDROGEN SULFIDE (See Sour Gas/Oil Warning)	H_2S	X	X	X	X	X	X	O	O	X	X	X	X	X
KEROSENE	Kerosine	O	O	O	O	O	O	O	O	O	O	O	O	O
LACTIC ACID		X	O	O	X	X	X	L	O	X	O	O	X	O
MAGNESIUM CHLORIDE	$MgCl_2$	X	X	X	X	X	X	O	O	O	O	O	O	O
MAGNESIUM SULFATE	Epsom Salts $MgSO_4$	X	O	O	O	O	X	X	O	O	O	O	O	O
MERCURIC CHLORIDE	$HgCl_2$	X	X	X	X	X	X	X	O	O	O	O	O	O
MERCURY	Quicksilver Hg	O	O	O	X	O	X	O	X	O	O	O	O	O
METHANE DRY, NO H_2S	CH_4	O	O	O	O	O	O	O	O	O	O	O	O	O
METHYL ETHYL KETONE	M.E.K.	L	O	O	X	X	X	X	X	X	O	X	X	O
MILK		X	O	O	X	X	O	O	X	O	O	O	O	X
MORPHOLINE		O	O	O	O	O	O	O	X	X	O	X	X	O
NAPHTHA	Benzin	O	O	O	O	O	O	O	O	O	O	O	O	O
NAPHTHALENE	Tar Camphor $C_{10}H_8$	O	O	O	O	O	O	X	L	X	O	O	X	O
Natural Gas, DOT Quality (*Cu alloy<100PSI.)		L	L	O	L	X	X	X	O	X	O	O	O	O
NICKEL CHLORIDE	$NiCl_2$	X	X	X	X	X	X	O	O	O	O	O	O	O
NICKEL SULFATE	$NiSO_4$	X	L	O	X	X	X	X	X	L	O	O	O	O
NITRIC ACID	HNO_3	X	O	O	X	X	X	X	O	X	O	X	X	X
NITROUS OXIDE	Laughing Gas N_2O	X	L	L	X	X	X	L	O	X	O	X	X	O
OLEIC ACID		X	L	L	L	L	O	L	O	X	O	X	X	O
OXALIC ACID		X	X	X	X	X	X	L	O	L	O	O	X	O
OXYGEN GAS	O_2	X	O	O	O	X	O	O	O	O	O	X	X	X
OZONE	O_3	X	O	O	X	X	X	X	X	X	O	X	X	O
PALMITIC ACID		X	O	O	X	X	X	O	X	X	O	O	O	O

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		Carbon Steel	304 SS	316 SS	Monel	Nickel	Inconel 600	Hastelloy C276	Tantalum	PVC	Teflon	Viton	Buna	Kalrez
PHENOL		X	O	O	L	O	O	O	O	X	O	O	X	O
PHOSPHORIC ACID	H_3PO_4	X	O	O	X	X	L	O	O	O	O	O	X	O
PHTHALIC ANHYDRIDE		O	O	O	O	O	O	O	O	X	O	X	X	O
PICRIC ACID		X	O	O	X	X	X	L	O	X	O	O	X	O
Potassium Chloride	KCl	X	X	X	L	L	X	O	O	X	O	O	O	O
Potassium Hydroxide	KOH	L	L	L	O	O	L	L	X	O	O	X	X	O
POTASSIUM NITRATE	Saltpeter KNO_3	L	L	L	L	L	L	L	O	O	O	O	O	O
POTASSIUM NITRITE	KNO_2	L	L	L	L	L	L	L	X	O	O	X	X	O
POTASSIUM PERMANGANATE	$KMnO_4$	X	X	X	X	X	X	X	O	X	O	X	X	O
PROPANE	C_3H_8	O	O	O	O	O	O	O	O	O	O	O	O	O
ROSIN		X	L	O	O	O	X	O	X	X	O	X	O	O
SEA WATER (*Monel not for Diaphragms)	Ocean Water	X	X	X	O*	X	O	O	O	O	O	O	O	O
SEWAGE, RAW		X	L	L	L	X	X	O	O	O	O	O	O	O
SILVER NITRATE (Acid free)	$AgNO_3$	X	L	L	X	X	X	X	O	O	O	O	X	O
SKYDROL		X	O	O	O	O	O	O	O	X	O	X	X	O
SODIUM BICARBONATE	Baking Soda $NaHCO_3$	L	O	O	O	O	O	L	X	O	O	O	O	O
SODIUM BISULFATE	$NaHSO_4$	X	X	X	L	L	X	L	O	O	O	O	X	O
SODIUM BISULFITE	$NaHSO_3$	X	X	X	L	X	X	L	O	O	O	O	O	O
SODIUM CARBONATE	Soda Ash Na_2CO_3	L	O	O	O	O	O	O	O	O	O	O	O	O
SODIUM CHLORIDE	Table Salt NaCl	X	X	X	O	L	O	O	O	O	O	O	O	O
SODIUM CHROMATE	Na_2CrO_4	O	O	O	O	O	O	O	O	O	O	X	O	O
SODIUM CYANIDE	NaCN	O	O	O	X	X	X	X	O	O	O	O	O	O
SODIUM DICHROMATE	S. Bichromate $Na_2Cr_2O_7$	L	O	O	X	X	X	X	X	O	O	O	X	O
SODIUM HYDROXIDE	CAUSTIC SODA NaOH	X	X	O	O	O	O	L	X	O	O	X	X	O

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		Carbon Steel	304 SS	316 SS	Monel	Nickel	Inconel 600	Hastelloy C276	Tantalum	PVC	Teflon	Viton	Buna	Kalrez
SODIUM HYDROXIDE	CAUSTIC SODA NaOH	X	X	X	O	O	O	L	X	X	O	X	X	O
Sodium Hypochlorite (* Kynar 15% max. conc.)	NaOCl	X	X	X	X	X	X	X	O	O	X	X	X	O
SODIUM NITRATE	Chile Saltpeter $NaNO_3$	L	O	O	X	O	X	X	O	O	O	X	X	O
SODIUM NITRITE	$NaNO_2$	O	O	O	O	O	O	O	O	O	O	O	O	X
SODIUM PEROXIDE	Na_2O_2	L	O	O	L	L	L	L	X	L	O	O	X	O
SODIUM PHOSPHATE (TRIBASIC)	TSP Na_3PO_4	O	O	O	O	O	O	O	O	X	O	O	X	O
SODIUM SILICATE	Water Glass	O	O	O	O	O	O	L	O	O	O	O	O	O
SODIUM SULFATE	Na_2SO_4	X	O	O	L	L	L	L	O	O	O	O	O	O
SODIUM SULFIDE	Na_2S	X	X	L	L	L	L	L	O	O	O	X	O	O
SODIUM SULFITE (*Viton<140°F)	Na_2SO_3	X	L	O	X	X	X	O	O	O	O	O*	X	O
SODIUM THIOSULFATE	$Na_2S_2O_3$	X	L	O	O	L	L	L	O	O	O	O	X	O
SOUR GAS / OIL (See Warning Pg. 4 of Text)		X	X	X	O	X	X	O	O	X	O	X	X	X
STANNOUS CHLORIDE	Tin Dichloride $SnCl_2$	X	X	X	X	X	X	X	O	X	O	O	O	O
STEAM (WITH SIPHON)		O	O	O	O	O	O	O	O	X	O	X	X	X
STEARIC ACID		X	O	O	X	O	L	O	O	O	O	X	X	O
STODDARD SOLVENT		O	O	O	O	O	O	O	O	X	O	O	O	O
SULFUR	S	X	X	L	X	X	O	O	O	X	O	O	X	O
SULFUR DIOXIDE, WET	SO_2	X	X	L	X	X	X	L	O	X	O	O	X	O
SULFUR TRIOXIDE, DRY	SO_3	X	L	L	X	L	L	O	X	O	O	O	X	O
SULFURIC ACID <60%	H_2SO_4	X	X	X	X	X	X	X	O	X	O	X	X	O
SULFURIC ACID 80-98%	H_2SO_4	X	X	X	X	X	X	X	O	X	O	X	X	O
TANNIC ACID	Tannin	O	L	O	O	X	L	X	O	O	O	O	O	O
TARTARIC ACID		X	X	O	O	X	O	X	O	X	O	O	O	O
TIN CHLORIDE (Stannous)	$SnCl_2$	X	X	X	X	X	X	X	O	X	O	O	O	O

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TOLUENE (TOLUOL)		O	O	O	O	O	O	O	O	X	O	X	X	O
Trichloroacetic Acid		X	X	X	L	X	X	O	X	X	X	X	X	O
Trichloroethane 1,1,1, Dry (*Teflon<200°F)		O	O	O	O	O	O	O	O	X	O*	X	X	O
Trichloroethyene, Dry		O	O	O	O	O	L	O	O	X	O	X	X	O
TURPENTINE		O	O	O	O	O	O	O	O	X	O	O	X	O
UREA	Carbamide	X	O	O	X	X	L	X	X	X	O	X	X	X
VINYL CHLORIDE		X	X	O	O	X	X	O	O	X	O	X	X	O

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