LAB CORROSION DATA FOR STAINLESS STEEL

Media	Temp	Type		Media	Temp	Type		Media	Temp	Type	
	+	304	316		+	304	316		+	304	316
Acetic Acid				Carbolic acid	B	I	I	Hydrocyanic acid	70	I	I
10%	70	I	I	Carbon tetrachloride				diluted 1:85	70	III	II
	B	I	I	pure (dry)	70	I	I		B	V	V
50%	70	I	I		B	I	I	diluted 1:10	70	IV	II
	B	II	I	aqueous solution 5-10%	70	III*	I*		B	V	V
100%	70	I	I	Carnalite				vapors	70	V	IV
	B	IV	I*	saturated	B	III*	I*		212	V	V
Acetic vapors				Chlorbenzol (conc.)				Hydrocyanic acid	70	I	I
30%	H	III	II	pure (dry)	70	I	I	Hydrofluoric acid			
Acetic anhydride	70	I	I	Chlorinated water				vapors	70	IV	IV
	B	II	I*	saturated	70	III	II		212	V	V
Acetyl chloride (Dry)	C	II	I	Chlorine gas				Hydrofluosilicic acid			
	B	II	II	dry	70	I	I	vapors-75% min. HF	70	V	V
Alcohol	70	I	I	moist	70	V	V		212	V	V
	H	I	I	Chlorobenzene (dry)	B	I	I				
Aluminum chloride	70	IV	III	Chloroform (dry)	70	I	I	Hyposulfite soda			
Aluminum sulfate				Chrome alum				dilute	H	I	I
10%	70	II*	I*	Sp. gr. 1.6	B	II*	I*	Iodoform	125	I*	I
	B	II	I	Sp. gr. 1.6 + ferrous sulfate	212	II*	I*	Lactic acid			
saturated	70	II*	I*	Chromic acid				5%	70	I	I
	B	III	II	C.P. 10% (free of S03)	70	I	I		150	II	I
Ammonia					B	II	II	10%	B	IV	I
all concentrations	70	I	I	C.P. 50% (free of S03)	70	I	I		150	III	
	B	I	I		B	III	III	Lead, molten (pure)	1100	III	III
Ammonia chloride				Com. 50% (contains S03)	70	I	I	Lead acetate	B	I	I
20%	B	II*	I*		B	V	V				
Ammonium nitrate				chromelectrolyte (grube)	70	I	I	Linseed Oil	70	I	
saturated at 212F	B	I	I	Citric Acid					H	I	
dissolved in conc. H2SO4	140	I	I	25% and 50%	70	I	I	+ 3% sulphuric acid	400	III	
	250	II	II		B	IV	I	Magnesium chloride			
Ammonium sulfate				5% at 45 psi	275	III	I	1 and 5%	70	II*	I*
10% and saturated	B	II*	I*	Copper sulfate					H	III*	I*
Ammonium sulfite				saturated at 212F	B	I	I	Magnesium oxychloride	70	III	I
concentrated	70	I	I	Cyanogen	70	I	I	Manganese chloride			
	B	II	I	Dichloro-ethane (dry)	B	I	I	10 and 50%	B	III*	II*
Barium chloride				Dinitrochlorbenzol				Mercuric bichloride			
5% and saturated	70	II*	I*	melted and solidified	70	I	I	0.7%	70	II	II
Benzene	70	I	I	Ether	70	I	I				
	B	I	I	Ethyl acetate				Mercuric chloride			
Benzoic acid	70	I	I	concentrated solution	70	I	I	dilute solutions		V	IV
Bichloride of mercury				Ethyl alcohol	70	I	I	Mercury			
0.1%	70	I*	I*	Ethyl chloride (dry)	70	I	I	liquid	70 &	I	I
	B	I*	I*	Ethylene chloride (dry)	70	I	I	Methylene chloride (dry)	B	I	
0.7%	70	II*	II*	Ethylene glycol							
	B	IV	IV	concentrated	70	I	I	Mixed acids (% in weight)			
Borax				Ferric chloride				50% sulfuric acid			
5%	H	I	I	1%	70	III*	I*	+ 50% nitric acid	140	I	I
Boric acid					B	IV	II*		200	II	II
concentrated	B	I	I	5%	70	III	II*		B(250)	III	III
Butyric acid				Ferric hydroxide	70	I		75% sulfuric acid			
5%	70	I	I	Ferric nitrate				+25% nitric acid	140	I	I
	B	I	I	5% still or aerated	70	I	I		200	II	II
Calcium bisulfite				Ferrous chloride					B(315)	IV	IV
At 300 psi	B	IV	I	saturated solution	70	V	III	70% sulfuric acid			
	400	V	II	Ferrous sulfate				+ 10% nitric acid			
Calcium brine				10%	70	II*	I*	+ 20% water	140	I	I
adulterated with					B	II	I		200	II	II
sodium chloride	70	III*	I*	Fluorine	70	V	V		B(335)	V	V
Calcium chlorate				Formaldehyde 40%	70	I*	I*	30% sulfuric acid			
dilute	70	I	I		B	I*	I*	+ 15% nitric acid			
	H	I	I	Formic acid				+ 65% water	140	I	I
Calcium chloride				5% still	70	II	I		200	I	I
dilute solution	70	II**	I*	5% still	150	II	I		B(230)	II	II
concentrated solution	70	II**	I*	Furtural	70	I	I	15% sulfuric acid			
saturated	212	III*	I*					+ 5% nitric acid			
Calcium hypochlorite				Gallic acid				+ 80% water	140	I	
5° Be	100	IV	III	saturated at 212 F	B	I	I		200	I	I

LAB CORROSION DATA (CONT.)

Media	Temp +	Type 304	Type 316	Media	Temp +	Type 304	Type 316	Media	Temp +	Type 304	Type 316
2%	70	IV	II*	Glycerin (acid free)	70	I	I		B(220)	I	I
Mixtures of acids and salts				Potassium dichromate				Stannic chloride			
Fuming nitric acid (Sp. Gr.				25%	B	I	I	solution (Sp. gr. 1.21)	70	IV	III
1.52) + 10% potassium				Potassium ferricyanide					B	V	V
nitrate	B	II	II	25%	70	I	I	Stannous chloride	125	III*	II*
Fuming nitric acid (Sp. Gr.											
1.52) + 10% aluminum				Potassium ferrocyanide				Stearic acid	70	I	I
nitrate	B	II	II	5%	70	I	I		350	IV	I
10% sulfuric acid + 10%				Potassium hypochlorite							
copper sulfate	B	I	I	Conc. Solution	70	IV	III*	Sugar			
10% sulfuric acid + 2%				Potassium oxalate		I	I	solution	H	I	I
ferrous sulfate	B	III	II	Potassium sulfate				Sulfur			
Naphthalene sulfonic acid (Dry)	70	I	I	1%	70	I	I	fused	265	I	I
Nickel chloride				5%	70	II	I	boiling	830	V	V
Solutions	70	III*	II*		H	II	I	Sulfur dioxide			
Nickel sulfate				Potassium sulfide				gas, moist	70	II	I
Solutions	70	II*	I*	Solution	H	I	I	gas, dry	575	I	I
Nitric acid				Pyrogalic acid		I	I				
Diluted 1:1	70	I	I	Salt brine				Sulfur monochloride	70	III	II
	B	I	I	3%	70	I*	I*				
				Over 3%	70	II*	I*	Sulfuric acid			
concentrated	70	I	I	Sea water				diluted 1:20	70	II	I
	B	II	II	100g contains: 2.72g NaCi:					B	V	IV
fuming	70	I	I	0.33 MgCi2: 0.22g MgSO4				diluted 1:10	70	III	II
	B	IV	IV	0.13g CaSO4 0.97g KCl:					B	V	V
Nitrous acid				0.008gMgBr2 0.012gCaCO3	70	II*	I*	diluted 1:1	70	III	II
5% Solution	70	I	I	Silver nitrate					B	V	V
Oleic acid, Raw	300	II	I	10%	B	I	I	concentrated	70	I	I
	400	III	II	Soap	70	I	I		212	IV	IV
Oil, crude				Sodium acetate-moist		I*	I		300	V	V
asphalt base	H	I	I	Sodium bisulfate				fuming (11% free SO3)	212	II	II
paraffin base	70	I	I	10%	70	II	I	(60% free SO3)	70	II	II
Oil, vegetable	H&C	I	I		B	II	I		160	II	II
Oxalic, acid				Sodium bisulfite				Sulfurous acid in water			
10%	70	I	I	Sp. gr. 1.38-solution	70	I	I	saturated	70	II	I
	B	IV	II	Sodium carbonate				At 60 psi	275	II	I
25%	B	IV	II	50%	B	I	I	At 70-125 psi	320	V	II
50%	B	IV	II		Meltin			At 150 psi	350	V	II
Phosphoric acid					(1650)	V	V	At 200 psi	400	V	II
1%	70	I	I	Sodium chloride				At 300 psi	400	V	II
	B	II	I	saturated, cold	70	I*	I*	Tannic acid			
1% at 45 psi	275	II	I		B	II*	I*	10%	B	I	I
10%	B	IV	I	saturated at 212F	H	II*	I*	50%	B	I	I
45%	B	IV	II	Sodium fluoride							
80%	140	III	II	5% solution		II*	I*	Tanning liquor		I	I
	230	V	III	Sodium hydroxide				Tartaric acid			
Phosphoric anhydride				20%	230	I	I	10%	70	I	I
dry or moist	70	I	I	34%	212	I	I		B	I	I
Photographic developers					B	II	II	50%	70	I	I
reducing hydroquinone,				melting	610	II	II		B	II	I
amido, ferrous-				Sodium hypochlorite 5%	70	III*	II*	Tin (molten)	1100	V	V
potassium oxalate	70	I*	I*	Sodium hyposulfite							
	B	I*	I*	dilute solution	H	I	I	Trichloracetic acid	70	V	V
				Sodium perchlorate 10%	70	I	I				
Picric acid		I	I		B	I	I	Trichlorethylene (dry)	70	I	I
Potassium bitartarate				Sodium sulfate				Varnish	70	I	I
saturated	B	II	I	all concentrations	H	II	I		H	I	I
Potassium bichromate				Sodium sulfide				Zinc (molten)	1100	V	V
25%	70	I	I	50%	B	I	I				
Potassium bromide	70	II*	I*	saturated	B	I*	I	Zinc chloride			
Potassium chlorate				Sodium sulfite 50%	B	II	I	solution, Sp. gr. 2.05	100	III*	I*
saturated	B	I	I	Sodium thiosulfate				solution, Sp. gr. 1.09	B	IV	I*
Potassium chloride				saturated solution	70	I	I	78 Be	95	III*	I*
1%	70	I*	I*	acid fix (hypo)	70	I	I	Zinc sulfate			
	B	I*	I*	25% solution	70	I	I	25%	C	I	I
5%	70	I*	I*		B	I	I		B	II	I
	B	II*	I*	20% + 20% acetic acid	70	I	I	saturated	70	I	I