

CHEMICAL RESISTANCE CHART

TYPICAL CORROSION RESISTANCE OF STAINLESS STEEL TO VARIOUS MEDIA

CODE: a – Unaffected. b – Slightly attacked. c – Attacked. m – Complete details concerning the conditions of service must be evaluated.

MEDIUM	TYPE CF8 304	NUMBERS CF8M 316	MEDIUM	TYPE CF8 304	NUMBERS CF8M 316	MEDIUM	TYPE CF8 304	NUMBERS CF8M 316
ORGANIC SUBSTANCES			ACIDS (Continued)			SALTS (Continued)		
Acetone	a	a	Trichloroacetic acid (10%)	a	a	Potassium hydrate	a	a
Benzol	a	a	Uric (conc.)	a	a	Potassium nitrate	a	a
Carbon tetrachloride	c	c	SALTS			Potassium oxalate	a	a
Ethyl alcohol	a	a	Aluminum chloride	c	c	Potassium permanganate	a	a
Ethyl chloride	a	a	Aluminum fluoride	c	b	Potassium sulfate	a	a
Ethyl ether	a	a	Aluminum sulfate	a	a	Silver nitrate	a	a
Food pastes	a	a	Ammonium alum	a	a	Silver cyanide	a	a
Fruit juices	a	a	Ammonium bromide	c	a	Sodium bicarbonate	a	a
Ink	m	m	Ammonium chloride	b	a	Sodium borate	a	a
Mustard	b	a	Ammonium hydroxide	a	a	Sodium bromide	a	a
Paregoric compd	a	a	Ammonium nitrate	a	a	Sodium chloride (2% aerated)	a	a
Quinine bisulfate	b	a	Ammonium sulfate	a	a	Sodium citrate	a	a
Quinine sulfate	a	a	Barium chloride	a	a	Sodium fluoride	b	—
Vinegar at 70°F	m	m	Bleaching powder	c	a	Sodium hydroxide	a	a
ACIDS			Calcium chloride	c	a	Sodium nitrate	a	a
Acetic	m	m	Calcium hydroxide or oxide	a	a	Sodium peroxide (212°F)	a	a
Benzoic	a	a	Copper chloride	c	c	Stannic chloride	c	c
Boric	a	a	Copper cyanide	a	a	Stannous chloride	b	—
Carbolic	a	a	Copper nitrate	a	a	Sulfur (molten) 500°F	a	a
Chromic (50%)	c	c	Copper sulfate	a	a	Sulfur chloride	b	—
Citric	a	a	(plus 2% sulfuric acid)	a	a	Titanium tetrachloride	a	a
Formic	c	m	Copper sulfate	a	a	Zinc chloride	c	b
Hydrobromic	c	c	Creosote	c	a	Zinc sulfate	a	a
Hydrocyanic	a	a	Creosote (plus 3% salt)	c	c	MISCELLANEOUS		
Hydrochloric	c	c	Hydrogen peroxide	b	a	Ammonia	a	a
Hydrofluoric	c	c	Magnesium carbonate	a	a	Baking oven gases	a	a
Lactic	a	a	Magnesium chloride	m	m	Bromine	c	c
Nitric (conc.)	a	a	Magnesium sulfate	a	a	Carbonated beverages	a	a
Nitric (conc. plus 2% HCl)	a	—	Magnesium hydroxide	a	a	Chlorine (wet and dry)	c	c
Nitrous (conc.)	a	a	Magnesium nitrate	a	a	Glycerin	a	a
Oxalic	m	m	Phosphorous trichloride	a	a	Hydrogen sulfide (400°F)	b	a
Phosphoric	a	a	Potassium bromide	a	a	Iodine	c	a
Phosphoric (10%)	a	a	Potassium carbonate	a	a	Lead (molten)	c	c
Picric (conc.)	a	a	Potassium chloride	m	m	Lysol	m	m
Pyrogalllic (conc.)	a	a	Potassium chlorate	a	a	Mercury	a	a
Pyroligneus (conc.)	a	a	Potassium cyanide	a	a	Sauerkraut brine	c	a
Stearic (conc.)	a	a	Potassium dichromate	a	a	Sea water	m	m
Succinic (molten)	c	—	Potassium ferricyanide	a	a	Sulfur dioxide	b	b
Sulfuric (conc.)	a	a	Potassium ferricyanide (boiling)	a	a	Vegetable juices	a	a
Sulfuric (dil.)	m	m	Potassium hypochlorite	c	m	X-ray developing solution	b	a
Sulfuric 15% (plus 2% potassium dichromate)	a	a	Potassium iodide	a	a	Zinc (molten)	c	c
Sulfurous (conc.)	b	a	Potassium iodide (sat. plus 0.1% sodium carbonate evaporated to dryness)	a	a			
Tannic (conc.)	a	a						
Tartaric (conc.)	a	a						