

Chemical Resistance

The resistance information contained within this table is indicative only and is based on reactions noted at an ambient temperature of 20°C. Higher temperatures will generally reduce the corrosion resistance of the materials.

If guarantees are required of specific material suitability, please contact ACO for further information.

Legend

- ✓ Recommended
- ? Suitable, however contact ACO Stainless for further advice
- ✗ Not recommended
- No data available

Reagent	Stainless Steel		Reagent	Stainless Steel		Reagent	Stainless Steel	
	304	316		304	316		304	316
Acetic Acid 20%	✓	✓	Diethylamine	✓	✓	Potassium Dichromate	✓	✓
Acetic Acid 80%	✗	✓	Dimethylaniline	✓	✓	Potassium Hydroxide	✓	✓
Acetone	✓	✓	Disodium Phosphate	-	-	Potassium Permanganate	✓	✓
Alcohol (Methyl or Ethyl)	✓	✓	Distilled Water	✓	✓	Potassium Sulphate	✓	✓
Aluminium Chloride	?	?	Ethyl Acetate	✓	✓	Propane Gas	✓	✓
Aluminium Sulphate	✓	✓	Ethylene Chloride	✓	✓	Propyl Alcohol	✓	✓
Ammonia Gas (dry)	✓	✓	Ethylene Glycol	✓	✓	Sea Water (Natural)	✗	?
Ammonium Chloride	?	?	Fatty Acids (Cb)	✓	✓	Silver Nitrate	✓	✓
Ammonium Hydroxide	✓	✓	Ferric Sulphate	✓	✓	Silver Sulphate	✓	✓
Ammonium Nitrate	✓	✓	Fluorene Gas (Wet)	✗	✗	Sodium Bicarbonate	✓	✓
Ammonium Phosphate	?	✗	Formaldehyde 37%	✓	✓	Sodium Bisulphite	✓	✓
Ammonium Sulphate	?	✓	Formic Acid 90%	✗	✓	Sodium Carbonate	✓	✓
Ammonium Sulphide	✓	✓	Freon 12	✓	✓	Sodium Cyanide	✓	✓
Amyl Chloride	✓	✓	Fruit Juices & pulp	?	✓	Sodium Ferrocyanide	✓	✓
Aniline	✓	✓	Furfural	✓	✓	Sodium Hydroxide	see caustic soda	
Barium Chloride	✓	✓	Gasoline (Refined)	✓	✓	Sodium Hypochlorite	?	✓
Barium Hydroxide 10%	-	-	Glucose	✓	✓	Sodium Sulphate	?	✓
Barium Sulphate	✓	✓	Glycerine	✓	✓	Sodium Sulphide	?	✗
Barium Sulphide	-	-	Hydrobromic Acid 20%	✗	✗	Sodium Sulphite	?	✓
Beer	✓	✓	Hydrochloric Acid 40%	✗	✗	Sodium Thiosulphate	✓	✓
Beet Sugar Liquors	✓	✓	Hydrocyanic Acid	✓	✓	Stannous Chloride	✗	✓
Benzene	✓	✓	Hydrogen Peroxide 90%	✓	✓	Stearic Acid	✓	✓
Benzoic Acid	✓	✓	Hydroquinone	✓	✓	Sulphurous Acid	?	✓
Bleach 12.5% active Cl	-	-	Hypochlorous Acid	✗	✗	Sulphur	?	✓
Boric Acid	✓	✓	Iodine	✗	✗	Sulphur Dioxide (Dry)	✗	✓
Bromic Acid	?	?	Kerosene	✓	✓	Sulphur Dioxide (Wet)	-	✓
Bromine	✗	✗	Lactic Acid 25%	✓	✓	Sulphuric Acid 50%	✗	✗
Butane	✓	✓	Linseed Oil	✓	✓	Sulphuric Acid 70%	✗	✗
Calcium Carbonate	✓	✓	Magnesium Chloride	✗	✗	Sulphuric Acid 93%	✗	✗
Calcium Chloride	✗	?	Magnesium Sulphate	✓	✓	Tannic Acid	✓	✓
Calcium Hydroxide	?	✓	Maleic Acid	✓	✓	Tanning Liquors	✓	✓
Calcium Hypochlorite	✗	?	Methyl Chloride	✓	✓	Tartaric Acid	✗	?
Calcium Sulphate	✓	✓	Methyl Ethyl Ketone	✓	✓	Toluene	✓	✓
Cane Sugar Liquors	-	-	Milk	✓	✓	Trichloroethylene	✓	✓
Carbonic Acid	✓	✓	Mineral Oils	-	-	Triethylamine	✓	✓
Carbon Bisulphide	✓	✓	Nickel Chloride	✗	✗	Trisodium Phosphate	✓	✓
Carbon Dioxide	✓	✓	Nickel Sulphate	✓	✓	Turpentine	✓	✓
Carbon Monoxide	✓	✓	Oils and Fats	✓	✓	Urea	✓	✓
Carbon Tetrachloride	✓	✓	Oleic Acid	✓	✓	Urine	✓	✓
Caustic Potash	✓	✓	Oleum	✓	✓	Vinegar	✓	✓
Caustic Soda 20%	✓	✓	Oxalic Acid	✓	✓	Water (Fresh)	✓	✓
Caustic Soda 50%	✓	✓	Palmitic Acid 10%	✓	✓	Water (Mine - acid)	✓	✓
Caustic Soda 80%	✗	✓	Perchloric Acid 10%	✗	✗	Water (Salt)	✓	✓
Chlorine (Dry)	?	?	Perchloric Acid 70%	✗	✗	Whisky	✓	✓
Chlorine (Wet)	✗	✗	Petroleum Oils	✓	✓	Wines	✓	✓
Chloroacetic Acid	?	?	Phenol 5%	✓	✓	Xylene	✓	✓
Chlorobenzene	✓	✓	Phosphorous Trichloride	✓	✓	Zinc Chloride	?	?
Chloroform	?	?	Photographic Solutions	✗	✗	Zinc Sulphate	✓	✓
Chromic Acid 50%	✗	✗	Picric Acid	✓	✓			
Chromic Acid 10%	✓	✓	Potassium Carbonate	✓	✓			
Citric Acid	?	✓	Potassium Chloride	✓	✓			
Copper Chloride	✗	✗	Potassium Cyanide	✓	✓			
Copper Cyanide	✓	✓						
Copper Nitrate	✓	✓						
Copper Sulphate	✓	✓						
Cottonseed Oil	✓	✓						
Cresol	✓	✓						
Cyclohexanone	✓	✓						
Cyclohexane	✓	✓						
Cyclohexanone	✓	✓						