Chemical Compatibility Chart (E – G)

Chemical \ Material	303 Stainless Steel	304 Stainless Steel (CF-8)	316 Stainless Steel (CF-8M)	410 Stainless Steel (CA-15)	440 Stainless Steel	Aluminium	Titanium	Hastelloy C	Cast Bronze	Brass	Cast Iron	Carbon Steel	PVC	Teflon	Noryl	Nylon	Polyethylene	Polypropylene	Ryton	Carbon	Ceramic	Viton ®	Buna N (Nitrile)	Silicon	Neoprene	Ethylene Propylene (EPDM)	Natural Rubber	Epoxy
Epsom Salts (Magnesium Sulfate)	B	A	A	-	A	A	A	B	B	-	-	-	A	-	A	-	-	A	-	A	A	A	A	-	A	-	C	A
Ethane	A	A	-	-	-	A	-	-	A	-	-	-	-	-	D	-	-	-	-	A	A	A	A	-	B	D	D	A
Ethanolamine	-	A	A	-	-	-	-	-	-	-	-	C	-	-	-	-	-	-	A	A	A	D	B	C	B	-	C	A
Ether	A	A	A	A	A	A	-	B	B	A	-	D	D	-	D	C	-	-	A	A	A	C	D	-	D	C	D	A
Ethyl Acetate	-	A	A	A	-	B	-	B	B	-	-	C	D	A	D	A	C	C	A	A	A	D	D	C	D	B	D	A
Ethyl Alcohol	-	A	A	A	A	B	A	A	A	C	A	A	A	-	A	A	B	A	-	A	A	A	A	B	A	B	A	A
Ethyl Chloride	-	A	A	A	A	B	A	B	B	-	C	D	D	A	D	A	D	D	A	A	A	A	D	D	C	A	A	A
Ethyl Sulfate	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	A	A	-	-	-	-	A
Ethylene Chloride	-	A	A	-	-	C	B	B	A	-	C	C	D	A	D	-	-	D	A	A	A	A	D	D	D	C	D	A
Ethylene Dichloride	-	A	A	-	-	D	A	B	C	-	-	C	D	A	D	A	D	A	A	C	A	A	D	D	D	C	D	A
Ethylene Glycol	-	A	A	A	-	A	-	A	B	B	B	C	A	A	A	A	B	A	A	A	A	A	A	C	A	A	A	A
Ethylene Oxide	-	-	A	-	-	A	-	-	A	-	-	-	D	A	A	A	-	-	-	A	A	D	D	D	D	C	D	A
Fatty Acids	-	A	A	-	-	B	A	A	C	-	D	-	A	A	B	A	B	A	-	A	A	A	C	C	B	C	C	A
Ferric Chloride	-	D	D	D	D	D	A	B	D	D	D	-	A	A	A	D	B	A	A	A	A	A	D	C	B	A	A	A
Ferric Nitrate	-	A	A	B	A	D	A	A	D	-	-	-	A	A	A	D	B	A	A	A	A	A	A	D	A	A	A	A
Ferric Sulfate	-	A	C	C	A	D	A	A	D	D	D	-	A	A	A	A	-	A	A	C	A	A	B	C	A	-	A	A
Ferrous Chloride	-	D	D	D	-	D	A	B	C	-	D	-	A	A	A	D	B	A	A	A	A	A	B	C	A	-	A	A
Ferrous Sulfate	B	A	C	A	-	D	A	B	C	-	D	D	A	A	A	D	B	A	A	A	A	A	B	-	A	-	A	A
Fluboric Acid	-	D	B	-	-	-	D	A	-	-	D	-	A	A	B	C	B	A	-	A	D	A	B	-	A	-	-	A
Fluorine	D	D	D	-	-	D	D	A	D	-	D	D	C	C	-	D	C	-	-	D	-	-	-	-	-	-	-	D
Fluosilicic Acid	-	-	B	C	-	D	D	B	-	-	D	-	A	A	A	D	B	A	-	A	D	B	A	-	A	-	-	C
Formaldehyde 40%	-	-	A	A	-	-	A	A	-	-	-	-	B	A	A	D	-	A	A	-	A	D	B	B	A	-	-	A
Formaldehyde	A	A	A	A	-	A	A	B	A	B	D	A	A	A	D	A	B	A	A	A	A	A	C	B	D	B	C	A
Formic Acid	C	A	B	A	B	D	C	A	C	C	D	D	D	A	A	D	B	A	A	A	A	B	D	C	D	A	C	B
Freon 11	A	-	A	A	-	B	-	-	B	-	C	B	B	A	D	A	C	-	A	A	A	C	C	D	D	D	D	A
Freon 12 (Wet)	-	-	D	A	-	B	-	-	B	-	-	-	B	A	D	A	C	A	A	A	A	A	A	D	B	B	D	A
Freon 22	-	-	A	A	-	B	-	-	B	-	-	-	D	-	B	A	-	-	A	A	A	D	D	D	A	A	A	A
Freon 113	-	-	A	A	-	B	-	-	B	-	-	-	C	-	-	A	-	-	A	A	A	C	A	D	A	-	D	A
Freon T.F.	-	-	A	-	-	B	-	-	B	-	-	-	B	-	D	A	-	D	A	A	A	B	A	D	A	D	D	A
Fruit Juice	A	A	A	-	A	B	-	-	B	-	D	D	A	D	A	A	B	A	-	A	A	A	A	-	A	-	-	A
Fuel Oils	A	A	A	-	-	A	A	A	B	-	C	B	A	A	A	A	D	B	A	A	A	A	A	C	B	D	D	A
Furan Resin	-	A	A	-	-	A	-	-	A	-	A	A	-	A	-	-	-	-	A	-	A	A	D	-	D	-	D	A
Furfural	A	A	A	A	-	A	-	B	A	-	-	A	D	A	D	A	D	D	A	A	A	D	D	D	D	B	D	A
Gallic Acid	B	A	A	A	-	A	-	A	A	-	D	D	A	A	-	A	-	-	-	-	-	B	A	-	-	-	-	-
Gasoline	A	A	A	A	A	A	D	A	A	-	A	A	C	A	D	A	D	C	A	A	A	A	A	D	D	C	D	A
Gelatin	A	A	A	D	A	A	-	A	A	C	D	D	A	A	A	A	-	A	-	A	A	A	A	-	A	A	A	A
Glucose	A	-	A	A	-	A	-	-	A	A	B	B	A	A	B	A	B	A	-	A	A	A	A	B	A	A	A	A
Glue P.V.A.	B	B	A	A	-	B	A	-	A	-	-	A	A	A	-	A	-	-	-	A	A	A	A	-	A	-	-	A
Glycerine	A	A	A	A	A	A	A	A	A	B	B	B	A	A	A	A	-	A	-	A	A	A	A	B	A	A	A	A
Gycolic Acid	-	-	-	D	-	-	-	A	-	-	-	-		-	A	-	B	A	A	A	-	A	A	-	A	-	-	A
Gold Monocyanide	-	-	A	-	-	-	-	-	A	-	D	-	-	-	-	-	-	-	-	A	A	A	A	-	A	-	-	A
Gold Plating																												
Cyanide 65ºC	-	-	A	-	-	-	A	A	C	-	-	-	D	A	A	A	-	A	-	-	B	A	A	-	A	-	-	D
Neutral 25ºC	-	-	C	-	-	-	A	A	-	-	-	-	A	A	A	A	-	A	-	-	A	A	A	-	A	-	-	A
Acid 25ºC	-	-	C	-	-	-	A	A	-	-	-	-	A	A	A	A	-	A	-	-	A	A	A	-	A	-	-	A
Indium Sulfamate Plating R.T.	-	-	C	-	-	-	A	A	-	-	-	-	A	A	A	D	-	A	-	-	A	A	A	-	A	-	-	A
Grape Juice	-	A	A	-	-	B	-	-	B	-	D	-	A	-	A	-	B	-	-	A	A	A	A	-	A	-	-	A
Grease	A	A	A	-	-	A	-	-	B	-	A	A	-	A	-	A	-	-	-	A	A	A	A	-	D	-	-	A

Chemical Resistance Legend

A ▶ No Effect – Excellent
B ▶ Minor Effect – Acceptable
C ▶ Moderate Effect – Questionable
D ▶ Severe Effect – Not Recommended
– ▶ No Information

Note

These recommendations are based upon information from material suppliers and careful examination of available published information. However, since the resistance of metals, plastics and elastomers can be affected by concentration, temperature, presence of other chemicals and other factors, this chart should be considered as general guide. The customer must determine the suitability of the material used in various solutions.

All recommendations assume ambient temperature unless otherwise stated.