Chemical Compatibility Chart (P – R)

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
Paraffin	A	A	A	A	A	A	-	-	A	-	B	B	A	A	B	A	-	A	-	A	A	A	A	-	-	-	-	A
Pentane	A	C	C	A	-	A	-	B	A	-	B	B	-	A	D	A	-	-	-	A	A	A	A	-	B	D	D	A
Perchloroethylene	B	A	A	A	-	A	-	-	C	-	B	B	-	A	D	-	-	D	A	A	A	A	C	D	D	D	D	A
Petrolatum	A	-	A	-	-	B	-	-	B	-	C	C	-	A	D	A	-	-	-	A	A	A	A	-	B	A	D	A
Phenol 10%	B	A	A	A	-	A	-	B	C	-	B	D	A	A	-	D	-	-	A	-	-	B	D	-	C	D	C	C
Phenol	B	A	A	A	A	B	C	A	B	D	D	D	A	A	C	D	D	B	A	A	D	A	D	-	D	D	D	B
Phosphoric Acid to 40%	-	B	A	C	A	D	A	A	D	D	D	-	A	A	A	D	B	A	A	B	C	A	D	-	D	B	C	A
Phosphoric Acid 40% - 100%	-	C	B	C	B	D	B	A	D	D	D	-	A	A	A	D	C	A	A	B	D	A	D	-	D	B	C	C
Phosphoric Acid (Crude)	-	D	C	D	C	D	C	A	D	D	D	D	-	A	-	D	C	-	A	C	D	A	D	-	D	B	-	A
Phosphoric Anhydride (Dry or moist)	-	A	A	-	-	-	-	-	-	D	-	-	D	A	-	-	-	-	-	A	-	D	D	-	D	-	A	-
Phosphoric Anhydride (Molten)	-	A	A	-	-	D	-	-	D	D	-	-	D	A	-	A	D	-	-	-	-	D	C	-	D	-	D	A
Photographic (Developer)	-	C	A	-	C	C	A	A	-	-	D	-	A	-	A	-	B	A	-	A	A	A	A	-	A	-	-	A
Phthalic Anhydride	B	A	B	-	-	B	-	A	B	-	C	C	-	A	-	A	-	-	-	-	-	A	C	-	-	-	-	-
Picric Acid	B	A	A	B	-	C	-	A	D	D	D	D	A	A	-	A	A	-	-	-	-	A	A	D	A	-	A	A
Potash	-	A	-	A	A	C	-	A	C	-	B	-	A	-	A	A	B	A	-	A	A	A	A	-	B	-	B	A
Potassium Bicarbonate	-	A	-	-	B	C	A	B	B	-	D	-	A	A	A	A	B	A	A	A	A	A	A	-	A	-	B	A
Potassium Bromide	A	A	-	-	B	C	A	B	C	-	D	D	A	A	A	C	B	A	C	A	A	A	A	-	A	A	B	A
Potassium Carbonate	B	A	-	A	A	C	A	A	C	-	B	B	A	A	A	A	B	A	A	A	A	A	B	-	A	-	B	A
Potassium Chlorate	B	A	A	A	A	B	A	B	B	-	B	B	A	A	A	D	B	A	A	A	A	A	A	-	A	-	B	A
Potassium Chloride	C	A	A	B	B	B	A	A	C	C	B	B	A	A	A	B	B	A	A	A	A	A	A	-	A	A	A	A
Potassium Chromate	-	-	B	-	B	A	-	B	A	-	A	-	A	-	A	-	B	-	A	A	D	A	A	-	A	-	B	C
Potassium Cyanide Solutions	B	A	B	A	A	D	A	A	D	-	B	B	A	A	A	A	B	A	A	C	A	B	A	-	A	A	A	A
Potassium Dichromate	B	A	A	A	A	A	A	B	C	-	B	C	A	A	A	D	B	A	A	A	A	B	A	-	A	A	A	A
Potassium Ferrocyanide	B	A	-	B	A	C	-	B	A	-	-	C	A	A	-	A	A	-	-	-	-	-	D	-	-	-	A	A
Potassium Hydroxide 50%	A	B	B	B	B	D	C	A	D	D	C	A	A	A	A	A	B	A	A	-	D	B	B	C	A	A	C	A
Potassium Nitrate	B	A	B	A	A	B	A	B	B	-	-	B	A	A	A	C	B	A	C	A	A	B	A	-	A	A	A	A
Potassium Permanganate	B	A	B	A	B	B	B	B	-	B	B	A	A	A	A	D	B	B	A	A	A	B	A	-	A	-	B	B
Potassium Sulfate	B	A	B	A	B	A	A	A	B	B	B	B	A	A	A	C	B	A	A	A	A	A	A	C	A	A	C	A
Potassium Sulfide	A	A	-	B	A	B	-	B	B	-	B	B	A	A	-	-	-	-	-	-	-	-	A	-	-	-	-	-
Propane (Liquified)	A	A	-	A	A	A	-	-	A	A	-	B	D	A	D	A	-	D	-	A	A	A	A	D	B	D	D	A
Propyl Alcohol	-	A	A	A	-	A	A	A	A	-	-	A	A	A	A	A	-	A	-	A	A	A	A	B	A	A	A	A
Propylene Glycol	B	B	-	-	A	A	-	-	B	-	B	B	-	A	-	B	B	-	-	A	A	A	A	-	C	-	-	A
Pyridine	-	C	-	D	B	B	-	-	-	-	B	A	-	A	D	-	C	B	A	A	A	D	D	-	D	B	D	A
Pyrogallic Acid	B	A	A	A	A	B	-	A	B	-	B	B	A	A	-	A	-	-	-	A	A	A	A	-	-	-	-	A
Rhodium Plating 50ºC	-	-	D	-	-	-	D	D	-	-	-	-	A	A	A	D	-	A	-	-	A	A	A	-	B	-	-	A
Rosins	A	A	A	A	A	A	-	B	A	C	-	C	-	A	-	A	-	A	-	A	A	-	A	-	-	-	-	A
Rum	-	A	-	-	A	-	-	-	-	-	-	-	A	-	A	A	-	A	-	A	A	A	A	-	A	-	-	A
Rust Inhibitors	-	A	-	-	A	-	-	-	A	-	A	-	-	-	-	-	-	A	-	A	A	A	A	-	C	-	-	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.