

# Chemical Compatibility Chart (N - O)

Material \ Chemical	303 Stainless Steel		304 Stainless Steel (CF-8)		316 Stainless Steel (CF-8M)		410 Stainless Steel (CA-15)		440 Stainless Steel		Aluminum	Titanium	Hastelloy C	Cast Bronze	Brass	Cast Iron	Carbon Steel	PVC	Teflon	Noryl	Nylon	Polyethylene	Polypropylene	Rylon	Carbon	Ceramic	Milon®	Buna N (Nitrile)	Silicon	Neoprene	Ethylene Propylene (EPDM)	Natural Rubber	Epoxy					
	303	304	316	410	440	Aluminum	Titanium	Hastelloy C	Cast Bronze	Brass	Cast Iron	Carbon Steel	PVC	Teflon	Noryl	Nylon	Polyethylene	Polypropylene	Rylon	Carbon	Ceramic	Milon®	Buna N (Nitrile)	Silicon	Neoprene	Ethylene Propylene (EPDM)	Natural Rubber	Epoxy										
Naptha	A	A	A	A	A	A	A	A	A	A	A	A	B	-	B	B	A	D	A	D	A	D	A	A	A	A	B	D	D	D	A							
Napthalene	B	A	B	A	-	B	A	A	C	-	B	A	D	A	D	-	D	B	A	A	A	A	C	D	-	D	D	D	D	D	A							
Nickel Chloride	-	A	B	-	-	D	A	A	D	-	D	-	A	A	A	A	B	A	-	A	A	A	-	A	A	A	A	-	A	A	A							
Nickel Plating																																						
Watts Type 45-70°C	-	-	C	-	-	-	A	A	-	-	-	D	A	A	A	-	A	-	-	A	A	A	-	A	A	A	A	-	A	-	-	D						
High Chloride 55-70°C	-	-	C	-	-	-	A	A	-	-	-	D	A	A	A	-	A	-	-	A	A	A	-	A	A	A	A	-	A	-	-	D						
Fluoborate 40-75°C	-	-	C	-	-	-	D	A	D	-	-	-	D	A	A	-	-	-	-	D	A	A	-	A	-	-	A	B	-	-	-	D						
Sulfamate 40-60°C	-	-	C	-	-	-	A	A	-	-	-	-	A	A	A	-	-	-	-	A	A	A	-	A	-	-	A	A	A	-	-	-	A					
Electroless 95°C	-	-	-	-	-	-	-	-	-	-	-	-	D	A	A	-	-	-	-	A	A	A	-	A	-	-	A	A	A	-	-	-	B					
Nickel Sulfate	B	A	B	-	-	D	A	B	C	C	D	D	A	A	A	A	B	A	-	A	A	A	A	-	A	A	A	-	A	A	C	A						
Nitric Acid 10%	A	A	A	B	A	D	A	A	D	-	D	D	A	A	A	D	B	A	D	C	B	A	D	-	D	B	A	D	-	D	B	D	A					
Nitric Acid 20%	-	A	A	A	D	A	D	-	D	-	D	-	A	A	A	D	B	A	C	D	C	A	D	-	D	D	D	-	D	D	D	B						
Nitric Acid 50%	-	A	A	B	A	D	A	A	D	-	D	-	A	A	A	D	C	D	C	D	A	D	C	D	-	D	D	-	D	D	D	D						
Nitric Acid (Concentrated solution)	-	D	B	D	A	B	A	B	D	D	D	-	D	A	D	D	D	C	D	A	B	D	-	D	D	D	-	D	D	D	D	D						
Nitrobenzene	B	A	B	-	-	C	A	B	D	-	B	B	D	A	D	C	D	C	B	A	A	A	D	D	D	D	D	D	D	D	D	B						
Oil, Aniline	-	A	A	A	-	C	A	D	A	-	A	-	D	A	D	C	-	A	-	A	A	A	D	-	A	A	A	D	-	D	D	D	A					
Oil, Anise	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	A	-	-	-	-	-	-	-	-	-	-	-	A					
Oil, Bay	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A					
Oil, Bone	-	A	A	-	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A					
Oil, Castor	-	A	A	A	-	A	-	-	A	-	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A					
Oil, Cinnamon	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A				
Oil, Citric	-	A	A	-	-	-	-	-	D	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A				
Oil, Clove	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A				
Oil, Coconut	-	A	A	B	-	B	-	-	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A				
Oil, Cod Liver	-	A	A	-	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A				
Oil, Corn	-	A	A	A	A	B	-	-	B	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A				
Oil, Cotton Seed	B	A	A	A	A	B	-	-	B	-	A	C	A	A	-	A	-	A	-	A	A	A	-	A	A	A	A	-	D	C	D	A	A					
Oil, Cresote	-	A	A	B	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A				
Oil, Diesel Fuel (2D, 3D, 4D, 5D)	-	A	A	A	-	A	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A				
Oil, Fuel (1, 2, 3, 5A, 5B, 6)	-	A	A	-	-	A	A	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A				
Oil, Ginger	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A				
Oil, Hydraulic	See Hydraulic Oil																																					
Oil, Lemon	-	A	A	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A				
Oil, Linseed	-	A	A	A	A	A	-	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A			
Oil, Mineral	A	A	A	A	A	A	-	-	A	-	A	B	A	-	B	A	-	B	A	-	B	A	-	B	A	-	B	A	-	B	A	-	B	A	-	A		
Oil, Olive	A	A	A	-	-	A	-	-	B	-	A	B	A	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A		
Oil, Orange	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A		
Oil, Palm	-	A	A	A	-	A	-	-	B	-	-	A	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A		
Oil, Peanut	-	A	A	-	-	A	-	-	A	-	A	-	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A		
Oil, Peppermint	-	A	A	-	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A		
Oil, Pine	A	A	A	A	-	A	-	-	D	-	C	B	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A		
Oil, Rape Seed	-	A	A	-	-	-	-	-	A	-	-	A	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A		
Oil, Rosin	-	A	A	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	
Oil, Sesame Seed	-	A	A	-	-	A	-	-	A	-	A	-	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	
Oil, Silicone	-	A	A	A	-	-	-	-	A	-	A	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	
Oil, Soybean	-	A	A	A	-	A	-	-	B	-	A	-	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	
Oil, Sperm	-	A	A	-	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	
Oil, Tanning	-	A	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	
Oil, Turbine	-	A	A	-	-	A	-	-	A	-	A	-	A	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A
Octyl Alcohol	-	A	A	-	-	A	A	A	C	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	
Oleic Acid	B	A	A	B	B	B	-	B	B	C	C	C	A	A	C	A	A	C	A	A	C	A	D	C	-	-	A	A	B	B	D	D	D	D	D	A		
Oleum 25%	-	-	-	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	
Oleum	B	-	A	D	-	B	-	-	C	C	-	B	D	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	
Oxalic Acid (Cold)	C	A	B	C	A	C	C	B	B	C	D	D	A	A	C	D	A	A	C	D	A	A	-	A	A	A	B	C	B	A	C	A	C	A	-	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.