HIGH CORROSION – overview of materials

Ultra-High Purity Class 5 Oxidising Chemicals

Product name	UN No.	Conc.	Ectfe Halar	Hastelloy C	316 St st	PVDF	Titanium TA6V	Ceramic
Ammonium hydroxide	2672	25%	✓	✓	✓ 40°C	✓	✓	✓
Ammonium hydroxide	3318	100%	✓	✓	✓ 100°C	✓	✓	✓
Hydrogen peroxide	2014	20-60%	✓	✓	✓	✓	✓	✓
Hydrogen peroxide	2015	60-70%	✓	✓	✓	✓	✓	✓
Sodium chlorite	1496	-	✓	✓	✓	✓	-	✓

Aggressive Class 8 Corrosive Chemicals

Product name	UN No.	Conc.	Ectfe Halar	Hastelloy C	316 St st	PVDF	Titanium TA6V	Ceramic
Ferric chloride	2582	-	✓	✓ 26°C	-	✓	✓	✓
Ferrous chloride	-	-	✓	✓	-	✓	✓	✓
Hydrochloric acid	1789	33%	✓	✓35 °C	-	✓	-	✓
Nitric acid	2031	100%	✓60°C	✓20°C	✓ 38°C	✓ 60°C	✓	✓
Nitric acid	2031	50%	✓60°C	✓60°C	✓38°C	✓	✓	✓
Phosphoric acid	1805	50-85 %	✓	✓	✓	✓	-	✓
Sodium hydroxide	1824	15%	✓	✓	✓	✓	✓	✓
Sodium hydroxide	1824	50%	✓	✓90°C	✓	✓	✓	✓
Sodium hydroxide	1824	concentrated	✓ 60°C	✓40°C	✓	✓70°C	✓	✓
Sodium hypochlorite	1791	concentrated	✓	✓40°C	-	✓	✓ 40°C	✓
Sodium hypochlorite	1791	20%	✓	-	-	✓	✓	✓
Sulphuric acid	2796	30%	✓	✓60°c	-	✓	-	✓
Sulphuric acid	2796	50%	✓	✓	-	✓	-	✓
Sulphuric acid	1830	95%	✓60 °C	✓60°c	✓	✓	-	✓

1. Temperature indicated is maximum temperature
2. Concentration indicated is maximum concentration
3. Temperature range ECTFE Halar is from -40° to 150°C except if lower temperature is indicated
4. Temperature range PVDF is from -20° to 100°C except if lower temperature is indicated
5. This overview is based on public data and has for sole purpose to guide the customer. It does not account under any circumstances as a guarantee from BIP PEROLO that transported cargo will be compatible with cited materials. The customer has final responsibility to check compatibility between transported cargo and valve materials.