

Phenol	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
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	Aluminium Bronze			Brass (a)			Copper			Copper-Nickel 90/10 alloys (b)			Gunmetal and Bronze (c)		
Temperature, Celsius	20°	60°	100°	20°	60°	100°	20°	60°	100°	20°	60°	100°	20°	60°	100°
Phosphoric acid (20%)	R	R	R	X	X	X	R	R	R	R	R	X	X	X	X
Phosphoric acid (50%)	R	R	R	X	X	X	X	X	X	R	R	X	X	X	X
Phosphoric acid (95%)	R	R	R	X	X	X	X	X	X	R	X	X	X	X	X
Phosphorus chlorides	R(11)	R(11)	R(11)	X	X	X	X	X	X	R	X	X	X	X	X
Phosphorous pentoxide	No data	No data	No data	X	X	X	X	X	X	No data	No data	No data	X	X	X
Phthalic acid	R	R	R	No data	No data	No data	R	R	R	R	R	R	R	R	R
Picric acid	X	X	X	X	X	X	X	X	X	R	R	R	R	R	R
Pyridine	No data	No data	No data	X	X	X	X	X	X	No data	No data	No data	X	X	X
Salicyl aldehyde	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data	No data
Sea water	R	R	R	R(62)	R	R	R	R	R	R	R	R	R	R	R
Silicic acid	R	R	R	No data	No data	No data	R	R	R	X	X	X	No data	No data	No data
Silicone fluids	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Silver nitrate	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sodium carbonate	R	R	R(4)	R	R	R	R	R	R	R	R	R	R	R	R
Sodium peroxide	X	X	X	X	X	X	X	X	X	R	X	X	X	X	X
Sodium silicate	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Sodium sulphide	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Stannic chloride	R(11)	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Starch	R	R	X	No data	No data	No data	R	R	R	R	R	R	R	R	R
Sugar soln, syrups, jams	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Sulphamic acid	No data	No data	No data	X	X	X	X	X	X	No data	No data	No data	X	X	X
Sulphates (Na, K, Mg, Ca)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Suphites	R	R	R	X	X	X	R	R	R	R	R	R	R	R	R
Sulphonic acids	No data	No data	No data	No data	No data	No data	X	X	X	No data	No data	No data	No data	No data	No data
Sulphur	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sulphur dioxide, dry	R	R	R	R	R	R	R	R	R	R	R	X	R	R	R
Sulphur dioxide, wet	R	R	R	X	X	X	X	X	X	X	X	X	X	X	X
Sulphur dioxide, (96%)	R	R	R	X	X	X	R(20)	R(20)	X	R	R(20)	X	R(20)	R(20)	R(20)
Sulphur trioxide	R(11)b	R	R	R(11)	R	R	R(11)	R	R	R(11)	R	X	R(11)	R	R
Sulphuric acid (<50%)	R	R	R	X	X	X	R	R	R	R	X	X	X	X	X
Sulphuric acid (70%)	R	R(62)	X	X	X	X	X	X	X	R	X	X	X	X	X
Sulphuric acid (95%)	R(62)	X	X	X	X	X	X	X	X	R	X	X	X	X	X
Sulphuric acid, fuming	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sulphur chlorides	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Tallow	R	R	R	No data	No data	No data	R	R	R	R	R	R	No data	No data	No data
Tannic acid (10%)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Tartaric acid	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Trichlorethylene	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Urea (30%)	R	R	X	R	R	X	R	R	X	R	R	X	R	R	No data
Vinegar	R	R	R	X	X	X	X	X	X	R	R	R	X	X	X

Temperature, Celsius	Aluminium Bronze			Brass (a)			Copper			Copper-Nickel 90/10 alloys (b)			Gunmetal and Bronze (c)		
	20°	60°	100°	20°	60°	100°	20°	60°	100°	20°	60°	100°	20°	60°	100°
Water, distilled	R(53)	R	X	X	X	X	R(53)	R	X	R	R	R	R(53)	R	R
Water, soft	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Water, hard	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Wetting agents (to 5%)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Yeast	No data	No data	No data	No data	No data	No data	R	R	R	No data	No data	No data	R	R	R
Zinc chloride	R	R	R	X	X	X	X	X	X	X	X	X	X	X	X

Footnotes:

- (a) Brass: Some types of brass have less corrosion resistance than is shown on the chart, others have more, e.g. Aluminium brass
- (b) Copper-nickel alloys: Based on behaviour of Cu/Ni 90/10; 70/30 may be generally more resistant
- (c) Gunmetal: The data refer only to high tin gunmetals
- (2) Depending on the acid
- (4) Fair resistance
- (11) Anhydrous
- (20) Not aerated solutions
- (30) Depending on composition
- (36) Over 85%
- (53) In absence of dissolved O₂ and CO₂
- (60) May discolour liquid/ product
- (62) Depending on type
- (73) Not ammonium
- (82) Provided more than 70% copper
- (83) Water less than 150ppm
- (119) Pure solution
- (175) With stabiliser

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