



KTM BALL VALVES

MATERIAL COMPATIBILITY

Complete material compatibility guide for the selection of the most appropriate trim materials



KEY

- A:** Excellent resistance - little or no change in mechanical properties or weight.
- B:** Good - In time there may be a deterioration in mechanical properties and/or a change in weight.
- C:** Poor - After a short period of time the material is attacked.
- U:** Unsuitable - Do not use.
- I:** Insufficient or no data on which to base a conclusive rating.

NOTE

The following information has been derived from published literature from plastics and polymer supplier and manufacturers. It is therefore intended as a guide only in selecting materials for specific sealing applications in our valves. As the seal material can be influenced by the concentration of the media, temperature, contact time and operating conditions, it must remain the 'users' responsibility for final material selection.

If in doubt we suggest that customers test seals under operating conditions to determine their suitability. No warranty is given against corrosion or erosion.



KTM BALL VALVES

MATERIAL COMPATIBILITY

Media	Carbon steel	316 Stainless steel	Acetal	Flexible graphite	Virgin/glass/carbon PTFE	Uhmwpe	Devlon v	Peek
Acetaldehyde	C	A	A	A	A	U	B	A
Acetate solvents	A	A	U	A	A	I	I	I
Acetic acid, aerated	U	A	U	A	A	I	C	I
Acetic acid, air free	U	A	U	A	A	I	I	I
Acetic acid, crude	C	A	U	A	A	I	I	I
Acetic acid, pure	U	A	U	A	A	C	I	B
Acetic acid, 10%	C	A	B	A	A	A	B	A
Acetic acid, 80%	C	A	U	A	A	C	C	I
Acetic anhydride	U	B	C	A	A	C	I	I
Acetone	A	A	A	A	A	A	A	A
Other ketones	A	A	A	A	A	I	I	I
Acetylene	A	A	A	A	A	I	A	A
Acid fumes	U	B	U	C	A	I	I	I
Acrylonite	A	A	U	A	A	I	I	I
Air	A	A	A	B	A	A	A	I
Alcohol, amyl	B	A	A	A	A	I	A	I
Alcohol, butyl	B	A	A	A	A	I	A	A
Alcohol, diacetone	A	A	A	A	A	I	I	I
Alcohol, ethyl	B	B	A	A	A	A	A	A
Alcohols, fatty	B	A	A	A	A	I	I	I
Alcohol, isopropyl	B	B	A	A	A	I	I	I
Alcohol, methyl	B	A	A	A	A	I	A	A
Alcohol, propyl	B	A	A	A	A	I	A	I
Aluminium chloride, dry	C	C	A	A	A	A	I	A
Aluminium chloride solution	I	U	U	A	A	A	I	I
Aluminium hydroxide	U	A	C	A	A	A	A	I
Aluminium potassium sulphate	I	B	U	A	A	A	I	I
Aluminium sulphate	U	B	U	A	A	A	I	A
Amines	B	A	C	A	A	I	A	I
Ammonia, alum	I	A	C	A	A	I	I	I
Ammonia, anhydrous liquid	A	A	U	A	A	I	I	A
Ammonia, aqueous	A	A	U	A	A	I	A	A
Ammonia, gas, hot	I	A	U	A	A	A	B	I
Ammonia solutions	B	A	U	A	A	I	A	B
Ammonium acetate	I	B	U	B	A	I	I	I
Ammonium bicarbonate	C	B	A	A	A	A	A	I
Ammonium carbonate	B	B	U	A	A	A	A	I
Ammonium chloride	U	C	C	A	A	A	I	A
Ammonium hydroxide 28%	C	B	U	A	A	A	A	A
Ammonium hydroxide concentrated	C	B	U	A	A	A	I	A
Ammonium nitrate	U	A	U	B	A	A	A	A
Ammonium phosphate	U	B	C	A	A	A	A	I
Ammonium phosphate Di-basic	U	B	A	A	A	I	I	I
Ammonium phosphate Tri-basic	U	B	A	A	A	I	I	I
Ammonium sulphate	C	B	B	A	A	A	A	I
Ammonium sulphide	U	B	A	A	A	A	I	I
Ammonium sulphite	C	A	A	A	A	I	I	I
Amyl acetate	C	B	A	A	A	A	A	A
Aniline	C	B	U	A	A	A	C	A
Aniline dyes	C	A	A	A	A	I	I	I
Apple juice	U	B	A	A	A	I	I	A
Aqua regia (strong acid)	U	B	U	U	A	C	C	C
Aromatic solvents	C	A	A	A	A	I	A	A
Arsenic acid	U	B	U	A	A	A	I	I
Asphalt emulsion	B	A	A	A	A	I	A	I
Asphalt liquid	B	A	A	A	A	I	B	I

Media	Carbon steel	316 Stainless steel	Acetal	Flexible graphite	Virgin/glass/carbon PTFE	UHMWPE	Devlon V	PEEK
Barium carbonate	B	B	A	A	A	A	I	I
Barium chloride	C	B	A	A	A	A	A	A
Barium hydroxide	C	B	A	A	A	I	I	I
Barium sulphate	C	A	A	A	A	A	A	I
Barium sulphide	C	B	A	A	A	A	I	A
Beer	U	A	A	A	A	A	B	A
Beet sugar liquors	B	A	A	A	A	I	I	I
Benzaldehyde	A	A	A	A	A	U	B	A
Benzene (benzol)	B	B	C	A	A	U	A	A
Benzoic acid	U	B	A	B	A	A	C	A
Blood (meat juices)	I	A	A	A	A	I	I	I
Borax (sodium borate)	C	A	A	A	A	A	A	I
Borax liquors	C	B	A	A	A	I	A	I
Boric acid	U	B	A	A	A	A	A	A
Brines, saturated	U	B	A	A	A	A	I	A
Bromine, dry	U	U	U	B	A	U	I	C
Bunker oils (fuel)	B	A	A	A	A	D	I	I
Butadiene	B	A	A	A	U	D	A	I
Butane	B	A	A	A	A	A	A	A
Buttermilk	U	A	A	A	A	B	I	I
Butylene	A	A	A	A	A	I	I	I
Butyric acid	U	B	A	A	A	U	B	I
Calcium bisulphite	U	B	U	A	A	I	I	A
Calcium carbonate	U	B	A	B	A	A	I	A
Calcium chlorate	I	B	U	B	A	A	I	I
Calcium chloride	C	B	A	A	A	A	B	A
Calcium hydroxide	C	B	A	A	A	A	I	A
Calcium sulphate	C	B	A	A	A	A	I	A
Caliche liquor	B	A	A	A	A	I	I	I
Cane sugar liquors	I	A	A	A	A	I	I	I
Carbonated beverages	U	B	A	A	A	I	A	I
Carbonated water	B	A	A	A	A	A	A	I
Carbon bisulphide	B	B	A	A	A	U	I	I
Carbon dioxide, dry	A	A	A	A	A	A	A	A
Carbonic acid	U	B	A	A	A	I	A	A
Carbon monoxide	I	A	A	I	A	A	I	A
Carbon tetrachloride, dry	B	A	A	A	A	U	A	A
Carbon tetrachloride, wet	U	B	B	A	A	U	A	A
Casein	I	B	A	A	A	I	A	I
Castor oil	B	A	A	A	A	A	I	I
Caustic soda	B	A	U	A	A	I	I	I
Cellulose acetate	I	B	C	A	A	I	I	I
China wood oil (tung)	C	A	A	A	A	I	I	I
Chlorinated solvents	C	A	A	A	A	I	I	B
Chlorinated water	I	C	U	B	A	C	B	C
Chlorine gas, dry	B	B	U	A	A	U	I	C
Chlorobenzene, dry	B	A	B	A	A	U	A	A
Chloroform, dry	B	A	A	A	A	I	D	A
Chlorophyll, dry	I	B	I	A	A	I	I	I
Chlorosulphonic acid, dry	B	B	U	A	A	U	D	C
Chrome alum	B	A	B	A	A	A	A	I
Chromic acid < 50%	U	C	U	A	A	A	C	A
Chromic acid > 50%	U	C	U	A	A	I	C	A
Chromium sulphate	I	B	C	A	A	I	I	I
Citric acid	U	B	A	A	A	A	C	C
Citrus juices	U	B	A	A	A	I	I	I

KTM BALL VALVES

MATERIAL COMPATIBILITY

Media	Carbon steel	316 Stainless steel	Acetal	Flexible graphite	Virgin/glass/carbon PTFE	UHMWPE	Devlon V	PEEK
Coconut oil	C	B	A	A	A	A	A	I
Coffee extracts, hot	C	A	A	A	A	I	I	I
Coke oven gas	B	A	U	A	A	I	I	I
Cooking oil	B	A	A	A	A	I	I	A
Copper acetate	U	A	U	A	A	I	I	A
Copper cyanide	I	A	A	A	A	A	I	A
Copper nitrate	U	B	A	A	A	A	I	A
Copper sulphate	U	B	A	A	A	A	A	A
Corn oil	C	B	A	A	A	A	I	I
Cottonseed oil	C	B	A	A	A	A	I	I
Creosote oil	B	B	U	A	A	U	I	A
Cresylic acid	C	B	U	A	A	A	D	I
Crude oil, sour	B	A	A	A	A	I	A	A
Crude oil, sweet	B	A	A	A	A	I	A	A
Cutting oils, water emulsions	B	A	A	A	A	I	A	I
Cyclohexane	A	A	A	A	A	C	A	A
Detergents, synthetic	I	B	A	A	A	A	A	A
Dextrin	I	B	A	A	A	A	I	I
Dichloroethyl ether	I	B	U	I	A	I	I	I
Diesel oil fuels	A	A	A	A	A	I	A	A
Diethylamine	A	A	A	A	A	I	I	A
Diethylene glycol	I	A	A	A	A	A	A	I
Diethyl sulphate	I	B	A	A	A	I	I	I
Dimethyl formamide	I	A	A	A	A	I	A	A
Dioxane	I	B	C	A	A	I	A	A
Disodium phosphate	I	B	A	A	A	A	I	I
Dowtherm	B	A	A	A	A	I	I	I
Drilling mud	B	A	A	A	A	I	I	I
Dry cleaning fluids	B	A	A	A	A	I	I	I
Drying oil	C	B	A	A	A	I	I	I
Epsom salts (MgSo4)	C	B	A	A	A	I	I	I
Ethane	C	B	A	A	A	I	I	A
Ethers	A	A	C	A	A	U	A	A
Ethyl acetate	B	B	C	A	A	C	A	A
Ethyl acrylate	C	A	B	A	A	I	I	I
Ethyl chloride, dry	B	A	A	A	B	U	I	I
Ethyl chloride, wet	U	B	A	A	A	U	I	I
Ethylene chloride	I	A	A	A	A	I	B	I
Ethylene dichloride	I	B	C	A	A	U	B	A
Ethylene glycol	B	B	A	A	A	A	B	A
Ethylene oxide	B	B	A	A	A	C	A	A
Ethyl ether	I	A	A	A	A	I	I	I
Ethyl silicate	I	B	A	A	A	I	I	I
Fatty acids	U	A	B	A	A	A	A	I
Ferric nitrate	U	C	A	A	A	A	I	A
Ferric sulphate	U	B	A	A	A	A	I	A
Ferrous chloride	U	U	A	A	A	A	C	A
Ferrous sulphate	U	B	A	A	A	A	I	A
Ferrous sulphate, saturated	C	A	C	A	A	I	I	I
Fertilizer solutions	B	B	B	A	A	I	A	I
Fish oils	B	A	A	A	A	I	I	I
Flue gases	I	A	C	A	A	I	I	I
Fluorosilicic acid	U	B	C	I	A	A	D	I
Formaldehyde, cold	A	A	B	A	A	A	B	A
Formaldehyde, hot	U	C	B	A	A	A	B	A
Formic acid, cold	U	B	U	A	A	A	C	A
Formic acid, hot	U	B	U	A	A	A	C	A
Freon gas, dry	B	A	C	A	A	I	I	I
Freon 11, MF, 112, BF	I	A	C	A	I	I	I	A
Freon 12,13, 32,114,115	I	A	B	A	I	I	A	A
Freon 21, 31	I	A	U	A	I	I	I	I
Freon 22	I	I	U	A	I	I	I	A
Freon 113, TF	I	A	B	A	I	I	I	A
Freon, wet	I	C	B	A	A	I	I	I
Fruit juices	U	A	A	I	A	A	B	A
Fuel oil	B	A	A	A	A	U	A	A
Furfural	A	A	U	A	A	I	A	I
Gallic acid 5%	U	B	B	I	A	A	I	I
Gas, manufactured	B	B	A	A	A	I	I	A
Gas, natural	B	A	A	A	A	I	A	A
Gas, odourisers	B	B	B	A	A	I	I	I
Gelatin	U	A	A	A	A	A	I	A
Glucose	B	A	A	A	A	A	I	I
Glue	A	B	A	A	A	A	I	I
Glycerine (glycerol)	C	A	C	A	I	A	A	I
Glycol amine	I	B	A	A	I	I	I	I
Glycol	C	B	B	A	A	A	I	A
Graphite	I	B	B	A	A	I	I	I
Grease	A	A	A	A	A	I	I	I
Helium gas	I	A	B	A	A	A	A	I
Heptane	B	A	A	A	A	C	A	A
Hexane	B	A	A	A	A	U	A	A
Hexanol, tertiary	A	A	A	A	A	A	I	I
Hydraulic oil, petroleum base	A	A	A	A	A	I	I	A
Hydrocyanic acid	U	A	U	I	A	A	I	A
Hydrofluosilicic acid	U	C	A	A	A	I	I	I
Hydrogen gas, cold	B	A	A	A	A	A	A	A
Hydrogen gas, hot	B	B	A	A	A	A	I	A
Hydrogen peroxide, concentrated	U	B	U	U	A	C	D	A
Hydrogen peroxide, dilute	U	B	D	C	A	A	C	A
Hydrogen sulphide, dry	B	A	C	A	A	A	B	A
Hydrogen sulphide, wet	C	B	C	A	A	A	B	I
Hypo (sodium thiosulphate)	U	B	A	A	A	I	I	I
Illuminating gas	A	A	A	A	A	I	I	I
Ink-newsprint	U	A	A	A	A	A	I	I
Iodoform	B	A	A	I	A	I	I	I
Iso-octane	A	A	A	A	A	I	I	A
Isopropyl acetate	I	B	A	A	A	I	I	I
Isopropyl ether	A	A	A	A	A	I	A	I
J P-4 fuel	A	A	A	A	A	I	I	I
J P-5 fuel	A	A	A	A	A	I	I	I
J P-6 fuel	A	A	A	A	A	I	I	I
Ketones	A	A	A	A	A	I	B	A
Laquer (and solvent)	C	A	A	A	A	I	I	I
Lactic acid, concentrated, cold	U	A	U	A	A	A	I	A
Lactic acid, concentrated, hot	U	B	U	A	A	A	I	A
Lactic acid, dilute, cold	U	A	U	A	I	A	C	A
Lactic acid, dilute, hot	U	A	U	A	A	A	C	A
Lactose	I	B	A	A	A	I	I	I
Lard	I	A	A	A	A	A	I	I
Lard oil	C	B	A	A	A	A	I	I
Lead acetate	U	B	A	A	A	A	B	A

KTM BALL VALVES

MATERIAL COMPATIBILITY

Media	Carbon steel	316 Stainless steel	Acetal	Flexible graphite	Virgin/glass/carbon PTFE	UHMWPE	Devlon V	PEEK
Lead sulphate	I	B	A	A	A	I	I	I
Lecithin	I	B	A	I	A	I	I	I
Linoleic acid	B	A	A	A	A	I	I	I
Linseed oil	A	A	A	A	A	A	A	A
Lithium chloride	I	B	A	A	A	I	I	I
LPG	B	B	A	A	A	I	A	I
Lubricating oil, petroleum base	A	A	A	A	A	C	A	A
Ludox	I	B	B	I	A	I	I	I
Magnesium bisulphate	B	A	A	A	A	I	I	I
Magnesium bisulphide	I	B	A	A	A	I	I	I
Magnesium carbonate	I	A	A	A	A	A	I	I
Magnesium chloride	C	B	A	A	A	A	A	A
Magnesium hydroxide	B	A	A	A	A	A	A	A
Magnesium hydroxide, hot	B	A	A	A	A	A	I	I
Magnesium sulphate	B	A	A	A	A	I	A	A
Maleic acid	B	B	A	A	A	A	I	A
Malic acid	U	B	A	A	A	I	A	I
Manganese sulphate	I	A	A	A	A	I	I	I
Mayonnaise	U	A	A	A	A	I	I	I
Mercuric chloride	U	B	A	A	A	A	C	A
Mercuric cyanide	U	A	A	A	A	A	I	I
Mercury	A	A	A	A	A	A	A	A
Methane	B	A	A	A	A	I	A	A
Methyl acetate	B	A	B	A	A	I	A	I
Methyl acetone	A	A	B	A	A	I	I	I
Methylamine	B	A	A	A	A	I	A	I
Methyl cellosolve	B	A	A	A	A	I	I	I
Methyl chloride	B	A	A	A	A	U	C	I
Methyl ethyl ketone	A	A	A	A	A	U	I	A
Methylene chloride	B	A	A	A	A	U	C	A
Methyl formate	C	B	A	A	A	I	I	I
Milk and milk products	U	A	A	A	A	B	A	A
Mineral oils	B	A	A	A	A	U	A	A
Mineral spirits	B	B	A	A	A	U	A	I
Mixed acids, cold	C	B	U	I	A	I	I	I
Molasses, crude	A	A	A	A	A	B	I	A
Molasses, edible	C	A	A	A	A	B	I	A
Mustard	B	A	A	A	A	I	I	I
Naptha	B	B	A	A	A	U	A	A
Napthalene	B	B	A	A	A	U	A	A
Natural gas, sour	B	A	A	A	A	A	A	I
Nickel ammonium sulphate	U	A	C	A	A	I	I	I
Nickel chloride	U	B	U	A	A	A	I	A
Nickel nitrate	U	B	C	B	A	A	I	A
Nickel sulphate	U	B	C	A	A	A	A	I
Nicotinic acid	B	A	C	A	A	A	I	I
Nitric acid 10%	U	A	U	A	A	A	C	A
Nitric acid 30%	U	A	U	B	A	A	D	A
Nitric acid 80%	U	C	U	C	A	U	C	C
Nitric acid 100%	U	A	U	U	A	U	I	C
Nitric acid anhydrous	U	A	U	U	A	I	I	I
Nitrobenzene	B	A	B	A	A	U	C	A
Nitrogen	A	A	A	A	A	A	I	A
Nitrous acid 10%	U	B	B	A	A	I	I	A
Nitrous gases	B	A	B	A	A	I	I	I
Nitrous oxide	B	B	A	B	A	A	I	A

Media	Carbon steel	316 Stainless steel	Acetal	Flexible graphite	Virgin/glass/carbon PTFE	UHMWPE	Devlon V	PEEK
Oils, animals	A	A	A	A	A	A	A	A
Oils, petroleum refined	A	A	A	A	A	A	A	A
Oils, petroleum sour	B	A	A	A	A	A	A	I
Oils, water mixture	B	A	A	A	A	A	A	I
Olaic acid	I	B	C	A	A	A	A	I
Oleic acid	C	B	C	A	A	C	A	A
Oleum	B	B	U	I	A	U	D	C
Oleum spirits	I	B	U	I	A	I	I	I
Olive oil	B	A	A	A	A	A	I	A
Oxalic acid	U	B	C	A	A	A	C	I
Oxygen	B	A	U	U	A	A	A	A
Ozone, dry	A	A	C	I	A	C	C	A
Ozone, wet	C	A	C	I	A	C	C	A
Paints and solvents	A	A	A	A	A	I	I	I
Palmitic acid	C	B	A	B	A	I	A	I
Palm oil	C	B	A	B	A	A	I	I
Paraffin	B	A	A	A	A	C	A	A
Paraformaldehyde	B	B	A	A	A	I	I	I
Paraldehyde	I	B	A	A	A	I	I	I
Pentane	B	A	A	A	A	I	I	A
Perchlorethylene, dry	B	A	B	A	A	I	B	A
Petroleum, aviation	A	A	C	A	A	U	A	A
Petroleum, leaded	A	A	C	A	A	U	A	A
Petroleum, motor	A	I	C	A	A	U	A	A
Petroleum, refined	B	A	C	A	A	U	A	A
Petroleum, sour	B	A	C	A	A	U	A	A
Petroleum, unleaded	A	A	C	A	A	U	A	A
Phenol	U	A	C	A	A	U	I	A
Phosphate ester 10%	A	A	A	A	A	I	I	I
Phosphoric acid 10%	U	U	U	A	A	A	B	A
Phosphoric acid 50%, cold	U	B	U	A	A	A	C	A
Phosphoric acid 50%, hot	U	U	U	A	A	A	C	A
Phosphoric acid 85%, cold	B	A	U	A	A	A	I	A
Phosphoric acid 85%, hot	C	B	U	A	A	A	I	A
Phosphoric anhydride	I	A	B	A	A	I	I	I
Phosphorous trichloride	B	A	U	A	A	A	I	I
Phthalic acid	C	B	B	A	A	I	B	A
Phthalic anhydride	C	B	A	A	A	A	I	I
Picric acid	U	B	U	I	A	A	I	A
Pineapple juice	C	A	A	A	A	I	I	I
Pine oil	B	A	A	A	A	U	I	I
Potassium bisulphite	U	B	A	A	A	I	I	I
Potassium bromide	U	A	A	A	A	A	A	A
Potassium carbonate	B	B	A	A	A	A	A	A
Potassium chlorate	B	B	A	C	A	A	I	A
Potassium chloride	C	B	A	A	A	A	A	A
Potassium cyanide	B	B	A	A	A	A	I	I
Potassium dichromate	C	B	A	I	A	A	B	A
Potassium ferricyanide	C	A	A	A	A	A	A	A
Potassium ferrocyanide	C	B	A	A	A	A	A	A
Potassium hydroxide, dilute cold	A	B	U	A	A	A	A	A
Potassium hydroxide to 70%, cold	B	B	U	A	A	A	C	A
Potassium hydroxide, dilute hot	B	B	U	A	A	A	A	A
Potassium hydroxide to 70%, hot	A	B	U	A	A	A	C	A
Potassium iodide	C	B	A	A	A	I	I	I
Potassium nitrate	B	B	A	B	A	A	A	A

KTM BALL VALVES

MATERIAL COMPATIBILITY

Media	Carbon steel	316 Stainless steel	Acetal	Flexible graphite	Virgin/glass/carbon PTFE	UHMWPE	Devlon V	PEEK
Potassium permanganate	B	B	A	I	A	A	D	A
Potassium phosphate Di-basic	A	A	A	A	A	I	I	I
Potassium sulphate	B	A	A	A	A	A	A	A
Potassium sulphide	B	A	A	A	A	A	A	A
Potassium sulphite	B	A	A	A	A	A	A	I
Producer gas	B	B	A	B	A	I	A	I
Propane gas	B	B	A	A	A	A	A	A
Propyl bromide	I	B	A	A	A	I	I	I
Propylene glycol	B	B	C	A	A	A	I	I
Pyrogallic acid	B	B	A	I	A	I	I	I
Quench oil	B	A	A	A	A	I	I	I
Resins and rosins	C	A	A	A	A	I	I	I
Road tar	A	A	A	A	A	I	A	I
Roof pitch	A	A	A	A	A	I	A	I
Rosin emulsion	C	A	A	A	A	I	I	I
RP-1 fuel	A	A	A	A	A	I	I	I
Rubber latex emulsions	B	A	A	A	A	I	I	I
Rubber solvents	A	A	C	A	A	I	I	I
Salad oil	C	B	A	A	A	I	I	I
Salicylic acid	U	A	A	A	A	A	D	I
Salt (NaCl)	C	B	A	A	A	A	I	I
Salt brine	I	B	A	A	A	A	I	I
Sea water	U	B	A	A	A	A	A	I
Sewage	C	B	B	A	A	A	I	A
Shellac	A	A	A	A	A	I	I	I
Silicone fluids	I	B	A	A	A	C	A	A
Silver cyanide	I	A	U	A	A	I	I	I
Silver nitrate	U	A	A	B	A	A	A	A
Soap solutions (stearates)	A	A	A	A	A	I	A	A
Sodium acetate	C	B	A	A	A	A	B	A
Sodium aluminate	C	A	A	A	A	I	I	I
Sodium bicarbonate	C	B	B	A	A	A	A	A
Sodium bisulphate 10%	U	A	U	A	A	A	B	I
Sodium bisulphite 10%	U	A	U	A	A	A	I	A
Sodium borate	C	B	A	A	A	A	I	I
Sodium bromide 10%	C	B	A	A	A	A	A	I
Sodium carbonate (soda ash)	B	A	A	A	A	A	A	A
Sodium chlorate	C	B	A	B	A	A	A	A
Sodium chloride	C	B	A	A	A	A	A	A
Sodium chromate	B	A	A	I	A	I	I	I
Sodium cyanide	B	A	A	A	A	I	A	I
Sodium fluoride	U	B	A	A	A	A	I	I
Sodium hydroxide 20%, cold	A	A	U	A	A	A	A	A
Sodium hydroxide 20%, hot	B	A	U	A	A	A	A	A
Sodium hydroxide 50%, cold	A	A	U	A	A	A	C	A
Sodium hydroxide 50%, hot	B	A	U	A	A	A	C	A
Sodium hydroxide 70%, cold	A	A	U	A	A	A	C	A
Sodium hydroxide 70%, hot	B	A	U	A	A	A	I	A
Sodium hypochlorite (bleach)	U	U	U	A	A	A	D	A
Sodium metasilicate, cold	C	A	A	A	A	I	I	I
Sodium metasilicate, hot	U	A	A	A	A	I	I	I
Sodium nitrate	B	A	A	I	A	A	A	A
Sodium nitrite	I	B	B	B	A	A	A	A
Sodium perborate	B	B	A	A	A	I	B	I
Sodium peroxide	C	B	A	A	A	I	I	A
Sodium phosphate	C	B	B	A	A	A	A	I

Media	Carbon steel	316 Stainless steel	Acetal	Flexible graphite	Virgin/glass/carbon PTFE	UHMWPE	Devlon V	PEEK
Sodium phosphate Di-basic	C	B	A	A	A	I	I	I
Sodium phosphate Tri-basic	C	B	A	A	A	I	I	I
Sodium polyphosphate	I	B	I	A	A	I	I	I
Sodium silicate	B	B	A	A	A	A	A	A
Sodium silicate, hot	C	B	A	A	A	A	I	A
Sodium sulphate	B	A	A	A	A	A	A	A
Sodium sulphide	B	B	A	A	A	A	A	A
Sodium sulphite	I	A	A	A	A	A	A	A
Sodium thiosulphate	B	B	A	A	A	I	A	I
Soybean oil	C	A	B	A	A	A	I	I
Starch	C	B	A	A	A	A	I	A
Steam (100oC)	A	A	U	A	A	A	C	A
Stearic acid	C	B	A	A	A	A	A	I
Styrene	A	A	A	A	A	I	A	A
Sugar liquids	B	A	A	A	A	A	I	I
Sulphate, black liquor	C	B	C	A	A	I	I	I
Sulphate, green liquor	C	B	A	A	A	I	I	I
Sulphate, white liquor	C	B	U	A	A	I	I	I
Sulphur	C	B	A	A	A	A	A	A
Sulphur chlorides	U	U	A	A	A	I	I	A
Sulphur dioxide, dry	B	A	A	A	A	A	B	A
Sulphur dioxide, wet	I	A	U	A	A	A	B	A
Sulphur, molten	C	B	U	A	A	I	I	I
Sulphur trioxide	B	B	U	U	A	I	I	A
Sulphur trioxide, dry	B	B	A	U	A	I	I	I
Sulphuric acid 0 to 77%	U	C	U	A	A	B	C	A
Sulphuric acid 100%	C	A	U	U	A	U	D	C
Sulphurous acid	U	B	C	A	A	A	U	I
Tall oil	B	B	A	A	A	I	I	I
Tannic acid (tannin)	C	B	A	A	A	A	I	A
Tar and tar oils	A	A	A	A	A	I	B	A
Tartaric acid	U	A	A	A	A	A	B	A
Tetraethyl lead	C	B	A	A	A	I	I	A
Toluol (toluene)	A	A	C	A	A	U	I	A
Tomato juice	C	A	A	A	A	I	I	I
Transformer oil	A	A	A	A	A	C	A	A
Tributyl phosphate	A	A	A	A	A	I	I	I
Trichlorethylene	B	B	A	A	A	U	B	A
Tung oil	B	A	A	A	A	I	I	I
Turpentine	B	B	A	A	A	U	A	A
Urea	C	B	A	A	A	A	A	A
Uric acid	I	A	B	A	A	I	A	I
Varnish	C	A	A	A	A	I	I	A
Vaseline petroleum jelly	C	B	A	A	A	I	A	A
Vegetable oils	B	A	A	A	A	I	A	A
Vinegar	U	A	B	A	A	A	C	A
Water, distilled	U	A	A	A	A	A	A	A
Water, fresh	C	A	A	A	A	A	A	A
Water, acid mine	U	B	A	A	I	A	I	A
Waxes	A	A	A	A	A	I	A	A
Whiskey and wines	U	A	A	A	A	A	B	A
Xylene (xylol), dry	B	A	A	A	A	U	A	A
Zinc bromide	I	B	A	A	A	I	I	I
Zinc hydrosulphite	A	A	A	I	A	I	I	I

Neither Emerson, Emerson Automation Solutions, nor any of their affiliated entities assumes responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use, and maintenance of any product remains solely with the purchaser and end user.

KTM is a mark owned by one of the companies in the Emerson Automation Solutions business unit of Emerson Electric Co. Emerson Automation Solutions, Emerson and the Emerson logo are trademarks and service marks of Emerson Electric Co. All other marks are the property of their respective owners.

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available upon request. We reserve the right to modify or improve the designs or specifications of such products at any time without notice.

Emerson.com/FinalControl