PRODUCT INFORMATION
Chemical resistance guide

ASCO™

GENERAL

Our valves are available to control most acids, alcohol, bases, solvents and corrosive gases and liquids. Modified or special designs are sometimes required depending upon the fluid and application.

Corrosion occurs either as a chemical or electro-chemical reaction. Therefore, consideration must be given to both the galvanic and electromotive force series, as well as to pressure, temperature and other factors that might be involved in the application.
This guide provides information on most common corrosive and non-corrosive, unmixed gases and liquids.

Mixtures of different fluids and their temperatures are not included in this table. It's the user's responsibility to ensure the chemical and physical compatibility of the body and other materials with the fluids used.
For applications where abnormal conditions exist and for other types of valves, operations and fluids, contact us with full details of the operating conditions.

fluids ↑ = **Excellent** → = **Acceptable** ↘ = **Not recommended** ↓ = **Do not use** - = **No data available**	**body materials**														**other materials in contact with fluid**									
	steel	stainless steel AISI 303/304	stainless steel AISI 316	stainless steel AISI 316L	aluminium	bronze	cast iron	brass	PA	PEEK	PPS	Silver	Copper	CR	EPDM	FFPM	FPM	NBR	UR	PET	POM	PTFE	TPE
Acetaldehyde	↘	↑	↑	↑	→	↑	↑	↓	→	↑	→	↑	↓	↘	↑	↑	↓	↓	↓	↘	↑	↑	↑	→
Acetic acid	↘	→	→	→	↘	↘	↘	↓	→	↑	↑	↑	↘	↘	→	↑	→	→	↓	→	↓	↑	↑	↓
Acetic anhydride	↘	→	→	→	→	↘	↘	↓	↘	↑	↑	↑	↘	→	→	↑	↓	↘	↓	→	↓	↑	↑	↓
Acetone	↑	↑	↑	↑	↑	↑	↑	↑	↘	↑	↑	↑	↑	↘	↑	↑	↓	↓	↓	↓	→	↑	↑	↓
Acetonitrile	→	↑	↑	↑	↑	-	↑	-	-	↑	-	-	-	↑	→	↑	↓	↘	↓	→	-	↑	↑	→
Acetophenone	-	↑	↑	↑	→	-	↑	↑	↑	-	→	-	-	↓	↑	↑	↓	↓	↓	→	-	↑	↑	-
Acetyl chloride	↑	→	↑	↑	↓	↑	→	→	↘	-	↑	-	↑	↓	↘	↑	↑	↓	↓	↓	↓	↑	↑	↓
Acetylene	↑	↑	↑	↑	↑	↘	↑	→	↘	↑	↘	↓	↓	↘	↑	↑	↓	→	↓	↓	↑	↑	↑	↑
Air (lubricated)	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	-	-	↑	↘	↑	↑	↑	↑	↑	↑	↑	↑	↑
Air (unlubricated, dry)	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	-	-	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Alcohol ethyl (ethanol)	↑	↑	↑	↑	→	↑	↑	↓	↑	-	-	↑	→	↑	↑	↑	→	↑	↓	↑	↑	↑	↑	↑
Alcohol methyl (methanol)	↑	↑	↑	↑	→	↑	↑	↓	↑	-	↑	↑	→	↑	↑	↑	↓	↑	↓	↑	↑	↑	↑	↑
Aluminium sulfate	↘	→	↑	↑	↑	↘	↓	↘	↘	↑	↑	→	→	↑	↑	↑	↑	→	↓	↑	↑	↑	↑	→
Ammonia, anhydrous	↑	↑	↑	↑	↘	→	→	↘	↘	↑	↘	↘	↓	↑	↑	→	↓	→	↓	↘	↘	↑	↘	↘
Ammonia, aqueous	↑	→	↑	↑	↓	↘	→	↓	↘	-	↘	↘	↘	→	↑	→	→	↘	↓	↑	↓	↑	-	-
Ammonia, water	↑	→	↑	↑	↓	↘	→	↓	↘	-	↘	↘	↘	→	↑	-	→	↘	↓	↑	↓	↑	-	-
Ammonium hydroxyde	↘	→	→	→	↘	↘	↘	↓	↘	↑	→	↓	↓	→	↑	→	→	↘	↓	↑	→	↑	→	→
Amyl acetate	↘	→	→	→	→	↑	↘	→	↑	↑	↑	-	↑	↓	↑	↑	↓	↓	↓	→	↓	↑	↘	↘
Aniline	↘	→	↑	↑	↘	↘	→	→	↘	↑	→	↑	↓	↓	→	↑	→	↓	↓	↑	↑	↑	↘	↘
Argon	↑	↑	↑	↑	↑	→	→	↑	↑	↑	↑	↑	↘	↓	↑	↑	↑	↘	↑	-	-	↑	↑	↑
Barium chloride	↘	→	↑	↑	↓	↑	↘	↑	↘	↑	↑	-	→	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	→
Barium hydroxide	↘	→	↑	↑	↓	↘	↘	→	↘	-	↑	↑	↓	↑	↑	↑	↑	↑	→	↑	↓	↑	↑	→
Benzaldehyde	↑	↑	↑	↑	↑	↑	↑	→	→	↑	→	↓	→	↓	→	↑	↓	↓	↓	↓	↓	↑	↑	→
Benzene pure	→	↑	↑	↑	→	↑	→	→	↘	↑	→	↑	→	↓	↓	↑	↑	↓	↓	→	↑	↑	↑	→
Benzene sulfonic acid	→	↑	↑	↑	↓	→	↓	→	↘	↓	→	↑	↘	→	↘	↑	↑	↘	↓	→	↘	↑	↑	→
Borax	→	↑	↑	↑	↘	↑	↑	→	↘	↑	↑	-	→	→	↑	↑	↑	→	↑	↑	↑	↑	↑	↑
Bromine	↘	↓	↘	↘	↓	↓	↓	-	↘	↓	↓	→	↘	↓	↓	↑	↑	↓	↓	→	↓	↑	↓	↓
Butadiene	↑	↑	↑	↑	↑	↑	↑	↑	↘	-	↑	-	↘	→	↘	↑	↑	↓	↓	↓	↑	↑	↓	↓
Butane	↘	↑	↑	↑	→	→	→	↑	↑	↑	↑	-	↘	↑	↓	↑	↑	↑	↘	→	↑	↑	↑	→
Butanol (aqueous, butyl alcohol)	↑	↑	↑	↑	→	↑	→	↑	↑	-	↑	→	→	↑	→	↑	↑	↑	↓	→	↑	↑	↑	→
Butylene	↘	↑	↑	↑	↑	→	↑	↘	↑	-	↑	-	↓	↘	↓	↑	↑	→	↓	→	↑	↑	↑	→
Butyl acetate	↑	↑	↑	↑	↑	↑	↑	→	↑	↑	↑	→	↑	↓	→	↑	↓	↓	↓	→	→	↑	↑	↘
Butylamine	↑	↑	↑	↑	↑	→	↑	-	↑	-	↓	-	-	↓	↓	↑	↓	↓	↓	→	↓	↑	↑	↓
Butyl ether	↑	↑	↑	↑	↑	-	↑	-	↓	↑	↑	-	-	↘	↘	↑	↓	→	→	↓	↓	↑	↑	↓
Calcium chloride	↘	→	→	→	↓	→	↓	-	↘	↑	↑	↑	→	↑	↑	↑	↑	↑	↑	↑	↓	↑	↑	↑
Calcium sulfate	→	→	↑	↑	→	→	↑	↓	↘	↑	↑	↑	→	↑	↑	↑	↑	↑	↑	↑	↓	↑	↑	-
Carbon dioxide (wet/dry)	↑	↑	↑	↑	↑	→	↑	↓	↑	-	↑	↑	↑	→	→	↑	↑	↑	↑	↑	↑	↑	↑	↘
Carbon tetrachloride	↑	↘	↘	↘	↓	↑	↓	↑	↘	↑	→	→	↘	↓	↓	↑	↑	↘	↓	→	↑	↑	↑	↓
Caustic soda	→	↑	↑	↑	↓	→	→	→	↑	↑	→	-	-	→	↑	↑	→	↘	→	-	↑	↑	↑	→
Cellosolve	↑	→	↑	↑	→	-	→	↑	↑	-	↑	-	-	↓	→	↑	↘	↓	↓	↑	↑	↑	↑	↓

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Chlorobenzene	→	→	↑	↑	↓	↑	↘	↑	↘	↑	↑	→	→	↓	↓	↑	↑	↓	↓	→	↓	↑	↓
Chloroform	↘	↑	↑	↑	↓	↑	↘	→	↑	↑	→	↑	→	↓	↓	↑	↑	↓	↓	↓	↑	↑	↘
Chlorosulfonic acid	↘	↘	↘	↘	↓	↘	↓	→	↘	↘	↓	-	↓	↓	↓	↑	↘	↓	↓	↘	↓	↑	↓
Chlorine (wet)	↘	↘	→	→	↓	→	↘	↓	↘	↓	↓	-	-	↓	↘	→	↑	↓	↓	↓	↓	↑	↓
Chromic acid (25%)	↘	↘	↑	↑	↘	↘	↓	↓	↘	↘	↓	↓	↓	↓	↑	↑	↑	↓	↓	→	↓	↑	↓
Chromic acid, concentrated	↘	↘	↘	↘	↓	↘	↓	↓	→	↘	↓	-	↓	↓	↘	↑	↑	↓	↓	→	↓	↑	↓
City gas	-	↑	↑	↑	-	-	-	↑	-	-	-	-	↓	→	↓	↑	↑	↑	→	-	-	↑	-
Coffee	↘	↑	↑	↑	↑	↑	↘	-	↑	-	-	-	↑	↑	↑	↑	↑	↑	↓	↑	↑	↑	-
Coke oven gas	↑	↑	↑	↑	-	→	↑	↘	-	-	-	↑	↑	↘	↓	↑	↑	↘	↓	-	-	↑	-
Detergent	→	↑	↑	↑	↑	↑	→	→	↑	-	↑	-	-	→	↑	↑	↑	↑	↓	↑	↑	↑	→
Diesel fuel	↑	↑	↑	↑	↑	↑	↑	↑	↑	-	↑	↑	↑	→	↓	↑	↑	↑	↘	→	↑	↑	→
Dimethyl formamide	→	↑	↑	↑	↑	→	→	↘	↑	↑	→	-	↑	↓	→	↑	↘	→	↓	↑	↘	↑	→
Dimethyl phtalate	↑	↑	↑	↑	↑	-	↑	↑	↑	-	↑	-	-	↓	→	↑	→	↓	-	↑	-	↑	↑
Ethylene chloride	↑	→	↑	↑	→	↑	↘	→	↑	↑	→	↑	↘	↓	↘	↑	→	↓	↓	↘	↑	↑	↘
Ethylene diamine	→	→	↑	↑	↑	→	↑	↓	→	-	→	-	↓	↑	↑	→	↓	↑	↓	↑	↑	↑	-
Ethylene dichloride	↑	→	→	→	→	↑	↑	↑	↑	→	→	↑	→	↓	↘	↑	→	↓	↓	↓	↑	↑	↘
Ethylene glycol	→	→	↑	↑	→	↑	→	→	↑	↑	↑	↑	→	↑	↑	↑	↑	↑	→	↑	→	↑	↑
Ethylene oxide	→	↑	↑	↑	↓	↑	↘	↑	↘	-	↓	↘	↓	↓	↘	↑	↓	↓	↓	↘	↑	↑	↑
Ferric chloride	↓	↓	↘	↘	↓	↘	↓	↓	↑	→	↑	→	↓	→	↑	↑	↑	↑	↑	↑	→	↑	↑
Ferrous chloride	↓	↓	↘	↘	↓	↘	↓	↓	↘	↑	↑	→	↘	→	↑	↑	↑	↑	-	↑	→	↑	↑
Formaldehyde	→	↘	↑	↑	→	↑	↓	→	↑	→	↘	↑	→	→	↑	↑	→	→	↓	↑	↑	↑	→
Formic acid	↘	→	↑	↑	↓	↘	↓	→	↘	→	↑	-	↓	↑	↑	↑	↘	↘	↓	↑	↓	↑	→
Freon 11	→	↑	↑	↑	↘	↑	→	→	↘	↑	↑	↑	↑	↓	↓	→	↑	→	↓	↑	↑	↑	↑
Freon F-12	→	↑	↑	↑	↑	↑	→	→	↘	↑	↑	↑	↑	↑	→	-	→	→	↑	↑	↑	↑	↑
Freon 22	→	↑	↑	↑	↓	-	↓	↑	↑	↑	↑	↑	→	→	→	↑	→	↓	↓	↓	↑	↑	↓
Freon T WD602	→	↑	↑	↑	↓	-	-	↑	↑	-	↑	-	↑	→	→	→	↑	→	↑	-	-	↑	-
Fuel oil	↑	↑	↑	↑	↑	↑	→	→	↑	-	↑	↑	↘	→	↓	↑	↑	↑	↘	↑	→	↑	→
Fuel oil #6	↑	↑	↑	↑	↘	↑	↑	↑	↑	-	↑	-	↘	↓	↓	↑	↑	→	→	-	↓	↑	↑
Fuel ASTM Ref Fuel A	↑	↑	↑	↑	↘	↑	↑	↑	↑	-	↑	-	↘	→	↓	-	↑	↑	↑	-	↓	↑	↑
Fuel ASTM Ref Fuel B	↑	↑	↑	↑	↘	↑	↑	↑	↑	-	↑	-	↘	↓	↓	-	↑	↑	→	-	↓	↑	↑
Fuel ASTM Ref Fuel C	↑	↑	↑	↑	↘	↑	↑	↑	↑	-	↑	-	↘	↓	↓	-	↑	→	↓	-	↓	↑	↑
Fuel ASTM #1 Oil	↑	↑	↑	↑	↘	↑	↑	↑	↑	-	↑	-	-	↑	↓	-	↑	↑	↑	-	↓	↑	↑
Fuel ASTM #2 Oil	↑	↑	↑	↑	↘	↑	↑	↑	↑	-	↑	-	-	→	↓	-	↑	↑	→	-	↓	↑	↑
Fuel ASTM #3 Oil	↑	↑	↑	↑	↘	↑	↑	↑	↑	-	↑	-	-	↘	↓	-	↑	↑	→	-	↓	↑	↑
Fuel ASTM #4-5 Oil	↑	↑	↑	↑	↘	↑	↑	↑	↑	-	↑	-	-	↓	↓	-	↑	→	↓	-	↓	↑	↑
Furan	-	↑	↑	↑	↑	-	↑	-	-	-	↑	-	-	↓	↓	↑	↘	↓	-	↘	↓	↑	-
Furfural	↑	↑	↑	↑	↑	↑	↑	→	→	-	↑	→	→	↓	→	↑	↓	↓	↘	↓	→	↑	→
Gasoline (petrol)	↑	↑	↑	↑	-	↑	↑	↑	↑	↑	↑	↑	↘	→	↓	↑	↑	↑	→	↓	↑	-	↑
Gasoline 100 octane	-	↑	↑	↑	-	-	-	↘	↑	-	↑	-	-	→	↓	-	↑	↑	→	↓	↑	↑	↑
Glycogenic acid	↘	↑	↑	↑	-	→	↘	-	→	-	↑	-	-	-	→	-	-	↘	→	↑	↑	↑	-
Glycol	↑	↑	↑	↑	-	↑	↑	-	-	↑	↑	↑	↑	↑	↑	↑	↑	↑	→	-	↑	↑	-
Helium	↑	↑	↑	↑	↑	↑	↑	↑	→	↑	↑	-	-	↑	↑	↑	↑	↑	↑	↑	↑	↑	-
Heptane	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	→	↓	↑	↑	↑	→	-	↑	↑	→
Hydraulic fluids	→	↑	↑	↑	↑	↑	↑	↑	↑	-	↑	-	-	↓	→	↑	↑	↓	↓	↓	→	↑	↑
Hydraulic oil	↑	↑	↑	↑	↑	↑	↑	↑	↘	-	↑	↑	↑	→	↓	↑	↑	↓	↑	↓	→	↑	↑
Hydrofluoric acid (50%)	↓	↓	↘	↘	↓	↘	↓	↘	↓	↓	↘	→	↓	→	↑	↑	→	↘	↓	→	↓	↑	↓
Hydrogen gas	↑	↑	↑	↑	↓	↑	↑	↑	→	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	-	↑	↑
Hydrogen peroxide (30%)	↘	→	→	→	→	↘	↓	↓	↘	↑	→	↓	↓	↓	→	↑	↑	↓	-	↑	↓	↑	↓
Hydrogen sulfide (dry hot)	↘	↘	↑	↑	↘	↘	↘	↘	↘	↑	→	↓	↓	→	↑	↑	↓	↓	→	↑	↑	↑	↑
Isobutylene	↑	↑	↑	↑	↑	↑	↑	↑	↑	-	↘	-	-	↓	↓	↑	↑	↘	↘	-	-	↑	-
Jet fuels (JP1 through 5)	↑	↑	↑	↑	↑	↑	↑	↓	↘	-	↑	-	-	↘	↓	↑	↑	↑	→	→	↑	↑	-
Jet fuels (JP 6)	↑	↑	↑	↑	-	↑	↑	↓	-	-	-	-	↑	↓	↓	↑	↑	↑	↓	↓	↑	↑	-
Kerosene (kerosine)	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	→	→	↓	↑	↑	↑	→	→	↑	↑	↑
Lactic acid	↘	↑	↑	↑	↘	↘	↓	↓	↘	↑	↑	→	↘	→	→	↑	↑	↘	-	↑	↑	↑	↓
Liquid natural gas (LNG)	-	↑	↑	↑	↑	-	-	↑	-	-	-	-	-	-	-	-	-	-	-	-	-	↑	-
Liquid oxygen (LOX)	↓	↓	↓	↓	↓	↓	↓	↑	↓	-	↓	-	-	↓	↓	→	↓	↓	↓	-	-	↑	-

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Liquid petroleum gas (LPG)	-	↑	↑	↑	↘	-	-	-	→	-	-	↑	↑	→	↓	↑	↑	↑	↑	↓	→	↑	→
Lubricating oils, di-ester	↑	↑	↑	↑	-	↑	↑	-	→	-	↑	↑	↑	↘	↓	↑	↑	→	→	-	-	↑	↓
Lubricating oils, petroleum base	↑	↑	↑	↑	↑	-	↑	↑	-	-	-	-	→	→	↓	↑	↑	→	→	↘	↑	↑	↑
Lubricating oils, SAE 10, 20, 30, 40	↑	↑	↑	↑	↑	-	↑	↑	-	-	-	-	-	→	↓	↑	↑	↑	→	↘	↑	↑	↑
Magnesium acetate	↑	↑	↑	↑	↓	↘	↘	→	→	-	↑	-	-	-	↑	-	↓	↓	-	↑	-	↑	-
Magnesium hydroxide	↑	↑	↑	↑	↓	↘	→	→	→	↑	↑	↘	↘	→	↑	↑	↑	→	↘	↑	↑	↑	→
Methane	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	→	↓	↑	↑	↑	↘	→	↑	↑	→
Methyl ether ketone (MEK)	↑	↑	↑	↑	↑	↑	↑	↓	→	↘	→	↑	↑	↓	↑	↑	↓	↓	↓	↘	→	↑	→
Mineral oil	↑	↑	↑	↑	↑	↑	↑	↑	↑	-	↑	↑	→	→	↓	↑	↑	↑	↑	→	↑	↑	↑
Morpholine	→	→	→	→	↑	→	→	-	→	-	→	-	-	↓	↓	↑	↓	↓	-	-	-	↑	-
Naphta	↑	↑	↑	↑	↑	↑	→	↘	↑	-	→	↑	→	↘	↓	↑	↑	↘	↘	↘	↑	↑	↑
Natural gas	→	↑	↑	↑	↑	↑	→	→	↑	↑	↑	↑	→	↑	↓	↑	↑	↑	→	↑	↑	↑	→
Nitric acid (10%)	↘	↑	↑	↑	↓	↘	↓	↓	↘	↑	↘	-	↓	→	→	↑	↑	↓	↘	↑	↘	↑	→
Nitric acid, concentrated	↓	↑	↑	↑	↓	↓	↓	↓	↓	↘	↓	-	↓	↓	↓	→	↑	↓	↓	↓	↘	↑	↓
Nitro benzene	↑	→	↑	↑	↘	→	↘	-	↘	↑	→	↑	↘	↓	↓	↑	→	↓	↓	→	→	↑	↓
Nitro methane	→	↑	↑	↑	↑	→	→	-	→	-	→	-	↑	↘	→	↑	↓	↓	↓	↘	↑	↑	↓
Nitrogen	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	→
Nitro propane	-	↑	↑	↑	↑	-	↑	-	-	-	-	-	-	↓	→	↑	↓	↓	↓	-	-	↑	-
Octane	-	-	↑	↑	-	-	-	-	-	-	-	-	-	↓	↓	↑	↑	↑	↓	↓	-	↑	-
Octane carboxylic acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	↑	↓	-	-	↑	-
Octanol	-	-	↑	↑	-	-	-	-	-	-	-	-	-	→	↑	-	↑	→	↓	-	-	↑	-
Oleic acid	↘	→	↑	↑	↑	→	→	↘	↑	-	-	↑	↘	→	↘	↑	→	→	→	↑	↑	↑	↑
Olive oil	↑	→	↑	↑	↑	↑	↑	→	→	-	↑	-	-	→	→	↑	↑	↑	↑	↑	↑	↑	-
Oxygen, cold	→	→	→	→	→	→	-	↑	-	-	-	-	→	↑	↑	↑	↑	→	↑	-	-	↑	-
Oxygen 121 - 204°C (250 - 400 °F)	-	-	-	-	-	-	-	-	↓	-	↓	-	-	↓	↓	↑	↓	↓	↓	-	-	↑	-
Oxygen, gas	↑	↑	↑	↑	-	↑	↑	↑	→	-	↓	→	↑	→	↑	-	↑	↓	↑	-	-	↑	-
Ozone (dry)	↑	↑	↑	↑	→	↑	↑	↑	↘	↘	↘	→	↓	↘	↑	↑	↘	↓	↑	↓	↓	-	↘
Palm oil	↘	↑	↑	↑	↑	↘	↑	-	-	-	-	-	↑	↘	-	-	↑	↑	→	-	↑	↑	-
Palmic acid	↘	→	↑	↑	→	↘	↘	↘	↑	-	→	-	→	→	→	↑	↑	↑	↑	-	-	↑	-
Paraffin	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	-	-	→	→	↓	↑	↑	↑	→	↑	↑	↑	-
Pentane	-	→	↑	↑	↑	-	→	↓	→	-	-	↑	→	↑	↓	↑	↑	↑	↓	-	↑	↑	-
Pentanol	-	-	-	-	-	-	-	-	-	-	-	-	-	↑	↑	-	→	→	↓	-	-	↑	-
Perchloroethylene (“Perk”)	→	↑	↑	↑	↓	→	→	-	↘	↑	↓	↑	→	↓	↓	↑	↑	↓	↓	↓	↑	↑	↓
Petrol	→	↑	↑	↑	→	↑	→	↘	↑	↑	↑	-	-	→	↓	↑	↑	↑	→	↑	↑	↑	-
Petroleum benzine	↑	↑	↑	↑	↘	-	↑	→	→	-	↑	-	-	→	↓	-	↑	↑	→	-	-	↑	-
Petroleum ether	→	↑	↑	↑	→	-	→	↑	↑	↑	↑	-	-	→	↓	↑	↑	↑	→	↑	↑	↑	-
Petroleum naphtha	↑	↑	↑	↑	↘	↑	-	-	→	-	-	-	-	→	↓	-	↑	↑	→	-	→	↑	-
Petroleum oil above 121°C (250°F)	↑	↑	↑	↑	↘	↑	-	-	→	-	-	-	-	↓	↓	↑	→	↑	↓	-	→	↑	-
Petroleum oil below 121°C (250°F)	↑	↑	↑	↑	↘	↑	-	-	→	-	-	↑	↑	→	↓	↑	→	↑	→	-	→	↑	-
Phenol	→	→	→	→	→	→	↓	→	↘	→	↑	↑	→	↓	↓	↑	↑	↓	↓	↘	↑	↑	↓
Phenilic acid	-	-	-	-	-	→	-	↓	-	-	-	-	-	↓	↓	-	→	↓	↓	-	-	↑	-
Phosphoric acid 10%	→	→	→	→	↓	→	↓	↓	↘	↑	↑	→	↓	→	↑	↑	↑	↑	↑	↑	↓	↑	-
Phosphoric acid, concentrated	↘	↓	↓	↓	↓	↘	↓	↓	↓	↘	↑	→	↓	↓	→	↑	↑	↓	↑	↑	↓	↑	↓
Pine oil	-	↑	↑	↑	↑	↑	→	→	↑	↑	→	-	-	↓	↓	↑	↑	→	-	-	↑	↑	↓
Poly propylene glycol	↑	↑	↑	↑	↑	↑	→	↑	→	-	↑	-	-	↓	↑	↑	↑	↑	-	↑	↓	↑	-
Potassium acetate	-	→	→	→	↓	-	↑	-	-	-	-	↑	→	→	↑	↑	↓	→	↓	↑	↑	↑	-
Potassium bicarbonate	↑	→	→	→	↓	→	↘	-	→	-	-	-	↓	↑	-	↑	↑	↑	-	-	↘	↑	-
Potassium carbonate	↑	→	↑	↑	↓	→	↑	→	→	↑	↑	-	-	↑	↑	↑	↑	↑	-	-	-	↑	-
Potassium chloride	↘	↘	↘	↘	→	↑	→	↓	→	↑	↑	↓	→	↑	↑	↑	↑	↑	↑	↑	↑	↑	↓
Potassium hydroxide (50%)	→	↑	↑	↑	↓	↘	↘	↓	↘	↑	→	→	↘	→	→	↑	↘	↘	→	↑	↑	↑	↑
Potassium nitrate	→	↘	↑	↑	↑	↑	→	→	→	↑	↑	↘	→	↑	↑	↑	↑	↑	↑	↑	→	↑	-
Potassium phosphate	→	→	→	→	↓	-	↓	→	→	↑	-	-	-	↑	↑	↑	↑	→	-	-	-	↑	-
Potassium sulfate	↑	→	↑	↑	↓	→	↓	→	→	↑	↑	→	→	↑	↑	↑	↑	↑	↑	-	-	↑	-
Propane	↑	↑	↑	↑	↑	↑	→	→	→	↑	↑	-	↑	↘	↓	↑	↑	↑	↘	↓	↑	↑	→
Propanol	↑	↑	↑	↑	-	-	↑	↑	→	↑	↑	-	-	↑	↑	-	↓	↓	↓	-	-	↑	-
Propylene	↑	↑	↑	↑	↑	-	↑	↑	-	-	-	↑	↑	↓	↓	↑	↑	↓	↓	↑	↑	↑	-

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fluids ↑ = **Excellent** → = **Acceptable** ↘ = **Not recommended** ↓ = **Do not use** - = **No data available**	**body materials**													**other materials in contact with fluid**									
	steel	**stainless steel AISI 303/304**	**stainless steel AISI 316**	**stainless steel AISI 316L**	**aluminium**	**bronze**	**cast iron**	**brass**	**PA**	**PEEK**	**PPS**	**Silver**	**Copper**	**CR**	**EPDM**	**FFPM**	**FPM**	**NBR**	**UR**	**PET**	**POM**	**PTFE**	**TPE**
Propylene chloride	-	→	↑	↑	↓	-	↑	-	-	-	-	-	-	↓	↓	↑	→	↓	↓	-	-	↑	-
Pydraul 10E, 29ELT	-	↑	↑	↑	-	-	↑	-	-	-	-	↑	→	↓	→	↑	↑	↓	↓	-	-	↑	-
Pyridine	↑	→	↑	↑	→	→	→	↘	↑	↑	↑	-	↘	↓	→	↑	↓	↓	↓	↘	→	↑	↘
Saccharose	→	↑	↑	↑	-	-	↑	↑	-	-	→	-	→	↑	↑	-	↑	↑	↓	-	-	↑	-
SAE oils	-	-	-	-	-	-	-	-	-	-	-	-	→	→	↓	-	↑	↑	↑	-	-	↑	-
Salt water	-	↘	↘	↘	↓	↑	↓	↓	↑	-	↑	-	→	↑	↑	↑	↑	↑	↓	↑	↑	↑	-
Soda	→	↑	↑	↑	↓	→	→	→	↑	-	↑	↑	→	→	↑	↑	→	↘	→	-	↑	↑	→
Sodium carbonate	↑	→	↑	↑	↘	↑	→	→	→	-	↑	↑	→	↑	↑	↑	↑	↑	-	↑	↑	↑	→
Sodium chloride	↘	↘	→	→	↘	↑	→	↘	→	↑	↘	→	→	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Sodium hydroxide (caustic soda)	↑	→	↑	↑	↓	↑	↘	↓	↑	↑	→	↑	↘	→	↑	↑	→	↘	→	↑	↑	↑	↓
Sodium hypochlorite	↘	↘	↘	↘	↓	↘	↓	↘	↘	↑	↘	→	↓	↘	→	↑	↑	↘	↓	→	↓	↑	↘
Sour natural gas	-	-	→	→	-	-	-	-	-	-	-	-	-	-	↓	↑	↓	↓	↓	-	-	↑	-
Steam to 107°C (225°F)	↑	↑	↑	↑	↓	↑	↑	↑	↘	-	→	→	→	↘	↑	↑	↓	↘	↓	-	-	↑	-
Steam 107 - 148°C (225 - 300°F)	↑	↑	↑	↑	↓	↑	↑	↑	↘	-	→	-	-	↓	↑	↑	↓	↓	↓	-	-	↑	-
Steam over 148°C (300°F)	↑	↑	↑	↑	↓	↑	↘	↑	↘	-	→	-	-	↓	↘	↑	↓	↓	↓	-	-	↑	-
Stoddard solvent	↑	↑	↑	↑	↑	↑	↑	-	↑	-	↘	-	↑	↘	↓	↑	↑	↑	↑	↑	↑	↑	↘
Sulphur dioxide, liquid	↑	→	↑	↑	↓	→	↓	↘	↘	↘	↑	↘	↘	→	↑	↑	↑	↓	-	↑	↓	↑	↓
Sulphuric acid, concentrated	↘	→	→	→	↓	↘	↓	↓	↘	↓	→	↓	↓	↓	→	↑	↑	↓	↓	↘	↓	↑	↘
Tetrachloroethylene	↑	↑	↑	↑	↓	-	↑	→	↘	-	→	↑	↑	↓	↓	↑	↑	↓	↓	↓	↑	↑	-
Tetrahydrofuran	↑	↑	↑	↑	→	↑	-	-	↑	↑	↘	-	-	↓	→	↑	↓	↓	↘	↘	↓	↑	→
Toluene	→	↑	↑	↑	↑	↑	↑	↑	↑	↑	→	↑	↑	↓	↓	↑	↑	↘	↓	-	↘	↑	↘
Tri chloro ethylene	→	→	→	→	→	→	→	↑	↘	↑	→	-	↘	↓	↓	↑	↑	↘	↓	↘	→	↑	↓
Tri chloro acetic acid	↘	↓	↘	↘	↓	-	↓	↘	↘	-	↑	-	↓	↘	→	↑	↘	→	↓	→	↓	↑	↓
Turpentine	↑	→	↑	↑	↑	↑	→	↘	→	-	↑	↑	→	↓	↓	↑	↑	↑	↓	→	↑	↑	→
Vaseline	↑	↑	↑	↑	-	-	↑	↑	↑	-	↑	-	-	→	↓	-	↑	↑	↑	-	-	↑	-
Vegetable oils	↑	↑	↑	↑	↑	↑	→	→	↑	-	-	-	-	↓	→	↑	↑	↑	-	↑	↑	↑	-
Vinegar	↘	↑	↑	↑	↓	↘	↘	↘	↑	-	↑	↑	→	→	↑	↑	↑	↘	↓	↑	→	↑	↘
Water	-	↑	↑	↑	-	-	-	-	-	-	-	-	-	→	↑	↑	→	↑	↘	-	-	↑	↑
Water, acid mine	↘	→	↑	↑	↓	↘	↓	↘	↑	-	↑	-	↓	↑	↑	-	↑	→	-	↑	↑	↑	↑
Water, deionized	↘	↑	↑	↑	↑	→	↘	↑	↓	-	↑	-	→	↑	↑	→	↑	→	-	-	→	↑	↑
Water, distilled lab	↘	→	↑	↑	→	↑	↘	→	→	↑	↑	↑	↘	↘	↑	-	↑	↑	↑	↑	→	↑	↑
Water, drinking	-	↑	↑	↑	↑	-	-	↓	↑	-	-	-	-	→	↑	-	↑	↑	↓	-	-	↑	↑
Water, fresh	↑	↑	↑	↑	→	↑	→	↑	↑	-	↑	↑	→	→	↑	-	↑	↑	↑	↑	↑	↑	↑
Water, heavy	-	-	-	-	-	-	-	-	↑	-	↑	-	-	→	↑	↑	↑	↑	↓	↑	↑	↑	↑
Water, sea/river	↘	→	→	↑	→	→	↘	↘	→	↑	↑	↑	→	→	↑	-	↑	→	↑	↑	↑	↑	↑
Water glass	↑	↑	↑	↑	-	-	↑	→	↑	-	↑	-	→	↑	↑	-	↑	↑	↘	↑	↑	↑	↑
Waterproofing salt	-	↘	↘	↘	→	↑	↓	→	↑	-	↑	-	-	→	-	-	-	→	↘	↑	↑	↑	↑
Xenon	↘	↑	↑	↑	↑	-	↘	↑	↑	↑	↑	-	-	↑	↑	↑	↑	↑	↑	↑	-	↑	-
Xylene	↑	→	→	→	↑	↑	→	→	→	↑	→	↑	↑	↓	↓	↑	↑	↓	↓	→	↑	↑	→
Zinc chloride	↓	↘	↘	↘	↓	↘	↓	↓	↑	↑	↑	→	↓	↑	↑	↑	↑	↑	↑	↑	↓	↑	↑

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