

## CHART 1. VALVE MATERIAL SERVICE RESISTANCE CORROSION SUITABILITY GUIDE

CORROSIVE MEDIA	Carbon Steel	St. St. 13%Cr.	St. St. F304	St. St. F316	Monel	Inconel	Hastealloy 'B'
Acetic Acid - pure	C	A	B	A	A	A	A
Acetic Acid - 10%	C	B	B	A	A	A	A
Acetic Anhydride	C	B	B	A	A	A	A
Acetone	B	A	A	A	A	A	A
Alcohol Methyl (Methanol)	B	A	A	A	A	A	A
Alcohol Methyl 65°	B	C	C	B	B	A	A
Ammonia - Conc. & Aq. Sol.	B	A	A	A	B	A	A
Ammonia - Gas	A	A	A	A	B	A	B
Ammonium Chloride - Still	C	C	B	B	B	A	B
Ammonium Nitrate	B	B	A	A	C	A	D
Ammonium Phosphate - Sat.	D	B	A	A	B	A	B
Ammonium Sulphate 1% & 5% - Agit. & Aer.	C	C	B	B	D	B	B
Ammonium - Saturated	C	C	C	A	B	B	B
Amyl Acetate	C	C	B	B	B	A	A
Aniline	C	C	B	B	B	B	B
Arsenic Acid - 65°C	D	C	B	B	D	D	D
Asphalt	B	A	A	A	A	A	A
Barium Chloride - Sat.	C	C	B	B	B	B	B
Barium - Aqueous Sol.	C	C	B	A	A	A	A
Benzoic Acid	D	C	A	A	A	A	A
Benzol	B	B	A	A	A	A	A
Boric Acid	D	C	B	B	A	A	A
Butane Gas	B	B	B	B	B	B	B
Butyric Acid	D	A	B	A	B	B	B
Calcium Bisulphite	D	C	C	B	D	D	C
Calcium Carbonate	D	C	B	A	B	B	B
Calcium Chloride	C	C	C	B	A	B	B
Calcium Hypochlorite	D	D	C	C	C	B	B
Carbon Tetrachloride	C	C	B	A	A	A	B
Carbonic Acid	D	C	B	A	B	A	A
Chlorine - Dry Gas	B	B	B	B	B	A	B
Chlorine - Moist.	D	D	D	D	D	D	D
Chromic Acid	C	C	B	A	B	B	D
Citric Acid - 5% - Still	D	A	A	A	A	A	A
Citric Acid - Sat.	D	D	C	B	B	B	A
Copper Nitrate	D	D	A	A	D	C	D
Copper Sulphate	D	C	B	A	C	D	C

CORROSIVE MEDIA	Carbon Steel	St. St. 13%Cr.	St. St. F304	St. St. F316	Monel	Inconel	Hastealloy 'B'
Creosote - crude	B	B	A	A	A	A	A
Dowtherms	B	A	A	A	A	A	A
Ethers	A	B	A	A	D	C	B
Ethyl Alcohol	B	B	A	A	B	B	B
Ethyl Glycol	A	A	A	A	A	A	A
Ferric Chloride	D	D	D	D	D	D	D
Ferric Sulphate	D	C	B	A	C	B	C
Ferrous Chloride	D	D	D	C	C	C	D
Ferrous Sulphate	D	B	B	A	B	B	D
Fluorine	D	D	C	B	B	B	B
Formaldehyde - cold	B	B	B	A	A	A	A
Formic Acid	D	C	C	B	B	A	C
Furtural	B	B	B	B	B	B	B
Gasoline Sour	B	B	A	A	C	C	C
Gasoline Refined	A	A	A	A	A	A	A
Gelatine	D	C	B	A	A	A	A
Glucose	B	B	A	A	A	A	A
Glue - Dry	A	A	A	A	A	A	A
Glycerine	A	A	A	A	A	A	A
Hydrochloric Acid (Muriatic)	D	D	D	C	C	C	B
Hydrocyanic Acid	C	C	A	A	C	B	B
Hydrofluoric Acid	D	D	D	D	B	D	B
Hydrogen Gas	B	A	A	A	A	A	A
Hydrogen Peroxide	D	D	C	B	B	B	B
Hydrogen Sulphide - Dry	B	B	A	A	A	A	A
Hydrogen Sulphide - Wet	C	C	B	A	B	A	A
Iodine - Dry - Wet	D	D	D	D	A	A	C
Kerosene	B	A	A	A	A	A	A
Laquer Solvents	B	B	A	A	B	A	A
Lactic Acid - 1%	D	B	A	A	C	A	B
Lactic Acid - 5%	D	B	A	A	C	A	A
Lactic Acid - 5% - Boiling	D	D	C	B	D	B	B
Lactic Acid - 10% - 65°C	D	D	C	B	C	B	B
Lactic Acid - Conc. - 21°C	D	D	D	D	D	B	B
Lime Sulphur	A	A	A	A	B	B	B
Linseed Oil	B	B	B	B	B	B	B
Lubricating Oil - Sour	C	B	A	A	C	B	B
Lubricating Oil - Refined	A	A	A	A	B	A	A

A = Good resistance    B = Satisfactory    C = Poor    D = Not recommended

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## CHART 1.

# VALVE MATERIAL SERVICE RESISTANCE CORROSION SUITABILITY GUIDE

CORROSIVE MEDIA	Carbon Steel	St. St. 13%Cr.	St. St. F304	St. St. F316	Monel	Inconel	Hastelloy 'B'
Magnesium Chloride	D	C	B	B	A	A	A
Magnesium Hydroxide	B	B	A	A	A	A	A
Magnesium Sulphate	B	C	B	B	A	B	A
Mecuric Chloride	D	D	D	C	D	D	C
Mercury	B	B	A	A	B	A	A
Methane Gas	B	B	B	B	B	B	B
Methylethylketone	A	A	A	A	A	A	A
Milk (Fresh or Sour)	D	B	A	A	A	A	A
Naphtha (Crude or Pure)	B	B	A	A	B	A	B
Natural Gas	B	A	A	A	A	A	A
Nickel Chloride	D	C	B	B	B	B	A
Nickel Sulphate	D	D	B	B	B	B	D
Nitric Acid - Crude	D	D	C	B	D	B	D
Nitric cid - 5 - 50%	D	D	B	B	D	B	D
Nitric Acid - Conc. 21°C	D	D	A	A	D	B	D
Nitric Acid - Conc. Boiling	D	D	D	D	D	D	D
Nitric Acid - Fuming Conc. 43°C	D	D	C	C	D	D	D
Nitric Acid - Fuming Conc. Boiling	D	D	D	D	D	D	D
Nitrobenzene	D	D	B	A	B	B	A
Oil - Miner. & Veget	B	B	A	A	B	C	B
Oxalic Acid 10% - 21°C	C	C	A	A	B	B	B
Oxlic Acid - 10% - Boiling	D	D	D	C	B	A	B
Oxygen	B	A	A	A	A	A	A
Petroleum Oils - Crude	B	A	A	A	A	A	A
Phosphoric Acid - Crude	D	D	D	D	D	B	A
Phosphoric Acid - 5% & Boiling	D	D	C	A	B	A	A
Phosphoric Acid - 10% Still	D	C	B	A	C	A	A
Phosphoric Acid - 10% Agitated	D	D	C	B	D	A	A
Phosphoric Acid - 10% Aer. - Boil.	D	D	D	C	D	B	A
Picric Acid	C	C	A	A	D	D	B
Potassium Chloride	D	D	C	B	A	A	B
Potassium Cyanide	B	B	B	B	B	B	B
Potassium Hydroxide - 5% - Still	B	B	A	A	A	A	A
Potassium Hydroxide - 50% - Boil.	D	D	B	A	A	A	A
Potassium Nitrate	B	A	A	A	B	B	C
Propane Gas	B	A	A	A	A	A	A
Sea Water	D	D	B	A	A	A	A
Soap Solution	A	A	A	A	A	A	A

A = Good resistance    B = Satisfactory    C = Poor    D = Not recommended

CORROSIVE MEDIA	Carbon Steel	St. St. 13%Cr.	St. St. F304	St. St. F316	Monel	Inconel	Hastelloy 'B'
Sodium Bicarbonate	C	C	A	A	B	B	B
Sodium Carbonate - 5 - 50%	B	B	A	A	B	A	A
Sodium Chloride	C	C	B	A	A	A	B
Sodium Cyanide	B	C	B	B	B	B	B
Sodium Hydroxide	C	C	B	A	A	A	A
Sodium Hypochlorite	D	D	C	B	C	C	B
Sodium Nitrate	B	B	B	A	B	A	D
Sodium Phosphate (di - Basic)	C	C	B	B	B	B	B
Sodium Phosphate (tri - Basic)	B	B	B	B	B	A	B
Sodium Sulphate	B	B	B	A	A	B	D
Sodium Sulphide	B	B	B	A	A	A	D
Steam	A	A	A	A	A	A	A
Stearic Acid - Conc.	C	C	A	A	B	A	A
Sulphur - 260°C - Molten	C	B	A	A	A	A	B
Sulphur Dioxide	B	B	A	A	B	B	B
Sulphuric Acid - <10%	D	D	D	C	B	B	A
Sulphuric Acid - 50% - 21°C	D	D	D	D	B	B	A
Sulphuric Acid - 50% - Boil.	D	D	D	D	C	D	A
Sulphuric Acid - Con. - 21°C	B	B	B	A	D	D	A
Sulphuric Acid - 149°C	D	D	D	D	D	D	D
Sulphuric Acid - Fuming	D	D	C	B	D	D	A
Sulphurous Acid - Sat.	D	D	C	B	D	D	D
Sulphurous Acid - Spray	D	D	C	C	D	D	D
Tannic Acid - 10%	D	D	B	A	B	B	B
Tannic Acid - 10% - Boil.	D	D	C	B	C	C	B
Tar	B	A	A	A	A	A	A
Tartatic Acid - 21°C	D	C	B	A	A	A	B
Tartatic Acid - 65°C	D	D	B	A	B	A	B
Trichlorethylene	C	C	B	B	D	D	B
Turpentine	B	B	A	A	A	A	A
Tomato Juice	C	B	A	A	A	A	A
Vinegar	D	A	A	A	A	A	A
Water (Fresh)	C	A	A	A	A	A	A
Water Distilled (Labor. Grade)	D	D	A	A	B	A	A
Water Distilled (Return. Cond.)	B	A	A	A	B	B	C
Zinc Chloride	D	D	D	B	B	B	B
Zinc Sulphate	D	C	B	A	A	B	B

This table is intended as a general guide only and does not imply guarantee of service performance. Final selection of material should be dictated by the specific environmental requirements. Factors such as:- temperature, valve type, pressure, flow conditions, other trim components, valve brand, etc., can ll have significant effect on material selection hence this is only a rough guide. Furthermore, recommendations vary between manufacturers.

*If we don't have the valve in stock we can source it from overseas network of stockists and very short lead-time specialty manufacturers. We can supply exotic grades like Nickel, Super Duplex F55 and Monel (ASTM A494-M35-1) Cd4M-Cu, Hastelloy C (ASTM A-494 CW12MW), 317 (C8G8M) in short lead-time.*

*We stock valves in A105, LF2, 304, 304L, 316, 316L, F51, CF8, CF3, CF8M, WC5, WC6, F11, F5, F22 Bronze, Iron, etc., in Ball, Butterfly, Check, Control, Gate, Globe, Needle, Parallel slide, Plug, etc. Valves are manufactured to API600, API602, API603, API6A, API6D, BS1868 and numerous other standards.*

## CHART 2.

# VALVE MATERIAL SERVICE RESISTANCE CORROSION SUITABILITY GUIDE

The durability data given is based on laboratory tests or are operational results, or are average values from various sources. All information is only a rough indicative guide and a large variation can and does apply.

Ranking numbers can be used to make a preliminary selection of the materials for certain applications. However, practical trials may be necessary in many cases, with due consideration of the operational conditions and the function to be fulfilled by the component. For a sufficiently reliable assessment of the durability of a material, parameters such as pressure, temperature, composition of the medium, concentration and pH value should all be taken into account.

MEDIA	STATE	Mass per unit volume in %	°C Temperature	Durability of the materials							
				Grey/malleable cast iron	Carbon steel	Austenitic steel (1.4571) 316Ti	Bronze	EPDM	NBR/Perbunan	FKM/Viton	PTFE/teflon
Acetaldehyde	Liquid	20	3	3	1	2	2	3	3	1	
Acetic anhydride	Liquid	20	3	3	1	3	3	3	3	1	
Acetone	Liquid	20	1	1	1	1	1	3	3	1	
Acetylene	Gas	20	1	1	1	3	1	1	1	1	
Acrylonitrile	Liquid	20	1	1	1	1	1	3	2	1	
Aluminium chloride	26% solution	20	3	3	3	3	1	2	1	1	
Aluminium sulphate	10% solution	20	3	2	1	3	1	1	1	1	
Ammonia, anhydrous	Gas	20	2	1	1	3	1	2	3	1	
Ammonia, aqueous	30% solution	20	1	1	1	3	1	2	3	1	
Ammonium carbonate	20% solution	20	3	3	1	3	1	1	3	1	
Ammonium chloride	10% solution	20	3	3	1(L)	3	1	1	1	1	
Ammonium monophosphate	10% solution	20	2	2	1	1	1	1	1	1	
Ammonium nitrate	Aqueous solution	100	3	3	1	3	1	2	1	1	
Ammonium sulphate	50% solution	20	3	3	1	2	1	1	1	1	
Amyl acetate	50% solution	20-130	2	2	1	2	1	3	3	1	
Aniline	Liquid	20-60	1	1	1	1	3	3	1	1	
Apple juice	Liquid	20	3	3	1	3	1	1	1	1	
Asphalt	Liquid	20-80	2	2	1	1	1	3	1	1	
Barium carbonate	20% solution	20	2	2	1	1	1	1	1	1	
Barium chloride	10% solution	20	3	2	1(L)	2	1	1	1	1	
Barium sulphate	Aqueous solution	20	3	3	1	1	1	1	1	1	
Beer	Aqueous solution	20	3	3	1	1	1	1	1	1	
Beet sugar liquor	Aqueous solution	20	2	2	1	1	1	1	1	1	
Benzaldehyde	Liquid	20	3	3	1	2	1	2	1	1	
Benzene	Liquid	20	1	1	1	1	3	2	1	1	
Benzoic acid	Liquid	20	2	2	1	1	1	1	1	1	
Benzol	Liquid	20	1	1	1	1	3	3	1	1	
Boric acid	50% solution	20	3	3	1	2	1	1	1	1	
Brines	10-15% solution	20	3	3	2	2	1	1	1	1	
Bromine, wet	Liquid	20	3	3	3	2	1	3	1	1	
Butane	Gas	20	2	2	1	1	2	1	1	1	
Buttermilk	Aqueous solution	90	3	3	1	3	1	1	1	1	
Butyl acetate	Liquid	20	1	1	1	1	2	3	3	1	
Butyric acid	Solution	100	3	3	1	3	1	2	1	1	
Calcium carbonate	Aqueous solution, saturated	20	2	2	1(L)	2	1	1	1	1	
Calcium chloride	25% solution	20	3	3	1	2	1	1	1	1	
Calcium hydrogensulphite	4% solution	20	3	3	2	2	1	1	1	1	
Calcium hydroxide	Aqueous solution	20	1	1	1	1	1	1	1	1	
Calcium sulphate	10% solution	20	3	3	1	2	1	1	1	1	
Carbolic (phenic) acid	90% solution	20-100	3	3	1	2	3	3	1	1	
Carbon dioxide, dry	Gas	20	1	1	1	1	1	1	1	1	
Carbon disulphide	Gas	50	2	2	1	3	3	3	1	1	
Carbon tetrachloride, wet	Liquid	20	2	2	1(L)	2	3	3	1	1	

MEDIA	STATE	Mass per unit volume in %	°C Temperature	Durability of the materials							
				Grey/malleable cast iron	Carbon steel	Austenitic steel (1.4571) 316Ti	Bronze	EPDM	NBR/Perbunan	FKM/Viton	PTFE/teflon
Carbonic acid	Aqueous solution	20	3	3	1	1	1	1	1	1	
Castor oil	Aqueous solution Liquid	20	2	2	1	1	3	1	1	1	
Chlorine, dry	Gas	20	1	1	1	2	1	3	1	1	
Chlorine water, saturated	Aqueous solution	20	3	3	3	3	1	3	1	1	
Chlorine, wet	Gas	20	3	3	3	3	3	3	1	1	
Chloroform, dry	Liquid	60	2	2	1	2	3	3	2	1	
Chlorosulphuric acid, dry	10% solution	20	2	2	2(L)	2	3	3	3	1	
Chlorosulphuric acid, wet	10% solution	20	3	3	3	3	3	3	3	1	
Chromic acid	10% solution	30	3	3	1	3	(1)	3	1	1	
Copper acetate	Aqueous solution	20	3	3	1	3	1	1	1	1	
Copper sulphate	Aqueous solution	20	3	3	1	2	1	1	1	1	
Cresols	Aqueous solution	20	2	2	1	3	3	3	1	1	
Cutting oil	Liquid	20	2	2	1	2	3	1	1	1	
Diesel fuel	Liquid	20	1	1	1	1	3	1	1	1	
Diethylamine	Liquid	25	1	1	1	3	1	2	3	1	
Ethane	Gas	20	2	2	2	1	3	1	1	1	
Ethanoic acid	25% solution	20	3	3	1	3	1	3	3	1	
Ethanoic acid, anhydrous	Liquid	20	3	3	1	2	1	1	1	1	
Ether	Liquid	20	2	1	1	1	2	3	3	1	
Ethyl acetate	Liquid	20	3	2	1	3	3	3	3	1	
Ethyl alcohol	Liquid	20	2	2	1	1	1	1	3	1	
Ethyl chloride, dry	Gas	20	2	2	1(L)	2	3	2	2	1	
Ethyl chloride, wet	Gas	20	3	3	1	3	3	2	2	1	
Ethylene glycol	Liquid	20	2	2	1	2	1	1	1	1	
Fatty acids	Liquid	150	3	3	1	2	3	3	1	1	
Fluorine, anhydrous	Gas	20	1	1	1	1	1	3	1	1	
Formaldehyd	40% solution	60	3	3	1	1	1	3	2	1	
Formic acid	50-100% solution	20-70	3	3	1	2	2	3	3	1	
Freons, anhydrous	Liquid	20	2	2	1	1	1	3	3	1	
Fruit juices	Aqueous solution	20	3	3	1	2	1	1	1	1	
Furfural	Gas	20	2	2	1	1	3	3	3	1	
Glucose	Aqueous solution, conc.	20	2	2	1	1	1	1	1	1	
Glycerol	Liquid	20	2	2	1	1	1	1	1	1	
Glycols	Liquid	20	2	2	1	1	1	1	1	1	
Heating oil, heavy	Liquid	20	2	2	1	2	3	2	1	1	
Heating oil, light	Liquid	20	2	2	1	2	3	1	1	1	
Heptane	Liquid	20	2	2	1	1	3	1	1	1	
Hydraulic fluid	Liquid	20	2	2	1	2	3	1	1	1	
Hydrobromic acid	Aqueous solution	20	3	3	3	3	1	3	1	1	
Hydrochloric acid	10% solution	20	3	3	3	3	1	2	1	1	
Hydrochloric acid	32% solution	20	3	3	3	3	1	2	1	1	
Hydrofluoric acid	60% solution	20	3	3	3	3	1	1	3	1	
Hydrogen	Gas	20	2	2	1	1	1	1	1	1	

1 = very suitable    2 = suitable    3 = not advisable    L = risk of pitting corrosion    S = risk of crevice corrosion

## CHART 2.

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MEDIA	STATE	Mass per unit volume in %	°C Temperature	Durability of the materials							
				Grey/malleable cast iron	Carbon steel	Austenitic steel (1.4571) 316TI	Bronze	EPDM	NBR/Perbunan	FKM/Viton	PTFE/Teflon
Hydrogen peroxide	30% solution	20	3	3	1	3	1	3	1	1	
Iron(III) chloride	10% solution	50	3	3	3	3	1	1	1	1	
Iron nitride	Aqueous solution	20	3	3	1	3	1	1	1	1	
Iron(III) sulphate	10% solution	20	3	3	1	3	1	1	1	1	
Isopropyl alcohol	Liquid	20	2	2	1	1	1	2	1	1	
Isopropyl ether	Liquid	20	2	1	1	1	1	2	2	1	
Kerosine (paraffin)	Liquid	20	1	1	1	1	3	1	1	1	
Lemon juice	15% solution	20	3	3	1	1	1	1	3	1	
Lactic acid	10-50% solution	20	3	3	1	2	3	1	1	1	
Lead acetate	25% solution	20	3	3	1	3	1	1	1	1	
Lighting gas	Gas	20	1	1	1	1	3	1	1	1	
Linseed oil	Liquid	20	1	1	1	1	3	1	1	1	
Magnesium sulphate	10% solution	20	3	3	1	1	1	1	1	1	
Maleic acid	50% solution	100	3	2	1	3	1	1	1	1	
Methane	Gas	100	2	2	1	1	2	1	1	1	
Methyl acetate	Solution	20	2	2	1	1	3	3	3	1	
Methyl alcohol	Liquid	20	2	2	1	2	1	2	2	1	
Methyl chloride	Gas	100	2	2	1	1	1	3	1	1	
Methyl cellulose	Aqueous solution	20	2	2	1	1	3	3	2	1	
Methylene chloride	Liquid	20	3	3	1(L)	3	3	3	1	1	
Milk	Liquid	20	3	3	1	1	1	1	1	1	
Mineral oil	Liquid	20	2	2	1	2	3	1	1	1	
Molasses	Liquid	20	3	3	1	1	1	1	1	1	
Naphtha	Liquid	20	2	2	1	2	3	1	1	1	
Nickel sulphate	Aqueous solution	20	3	3	1	2	1	1	1	1	
Nitric acid	30% solution	20	3	3	1	3	2	3	1	1	
Nitric acid	100% solution	20	3	3	1	3	3	3	3	1	
Nitrobenzene	Liquid	20	2	2	1	2	3	3	3	1	
Nitrous fumes	Gas	100	3	3	1	3	3	3	3	1	
Oil (crude oil, sour)	Liquid	20	3	3	1	3	3	1	1	1	
Oil (fish oil)	Liquid	150	2	2	1	1	3	1	1	1	
Oil (lubricating oil)	Liquid	20	1	1	1	1	3	1	1	1	
Oil (mineral oil, refined)	Liquid	20	2	1	1	1	3	1	1	1	
Oleic acid: see fatty acid	Liquid	150	3	3	1	3	3	3	1	1	
Oleum	Liquid	20	3	2	2	2	2	3	1	1	
Olive oil	Liquid	100	2	2	1	1	3	2	1	1	
Oxalic acid	25-50% solution	20	3	3	1	3	1	1	1	1	
Oxygen	Gas	20	2	2	1	1	1	2	1	1	
Ozone, dry	Gas	20	1	1	1	1	3	3	1	1	
Ozone, wet	Gas	20	3	3	1	2	3	3	1	1	
Palm oil	Liquid	100	3	3	1	2	3	2	1	1	
Pentane	Gas	100	2	2	1	1	3	1	1	1	
Perchloroethylene	Liquid	20	2	2	1(L)	3	3	3	1	1	
Petroleum jelly	Liquid	20	2	2	1	2	3	1	1	1	
Phenol	80% solution	100	3	3	1	2	3	3	1	1	
Phosphoric acid	10% solution	20	3	3	1	2	1	1	1	1	
Phosphoric acid	50% solution	20	3	3	1	2	1	1	1	1	
Potassium carbonate	50% solution	20	2	2	1	2	1	1	1	1	
Potassium chlorate	Aqueous solution, saturated	100	3	3	1	2	1	3	1	1	

MEDIA	STATE	Mass per unit volume in %	°C Temperature	Durability of the materials							
				Grey/malleable cast iron	Carbon steel	Austenitic steel (1.4571) 316TI	Bronze	EPDM	NBR/Perbunan	FKM/Viton	PTFE/Teflon
Potassium dichromate	30% solution	20	3	3	1	3	1	2	1	1	
Potassium disphosphate	20% solution	20	1	1	1	2	1	1	1	1	
Potassium hydroxide	Molten	360	2	2	1	3	3	3	3	3	
Potassium hydroxide	70% solution	100	2	2	1(S)	3	2	3	2	1	
Potassium sulphate	50% solution	50	3	3	1	2	1	1	1	1	
Producer gas	Gas	20	2	2	1	2	1	1	1	1	
Propane	Gas	20-80	2	2	1	1	1	1	1	1	
Propanol (propyl alcohol)	Solution	20	2	2	1	1	1	1	1	1	
Propylene glycol	Liquid	20	2	2	1	1	1	2	1	1	
Salicylic acid	20% solution	20	3	3	1	2	1	1	1	1	
Seawater	Aqueous solution	20	3	3	1	1	1	1	1	1	
Soap solution	10% solution	20	2	1	1	1	1	1	1	1	
Sodium acetate	Aqueous solution	20	3	3	2	2	1	2	1	1	
Sodium aluminate	Aqueous solution	20	2	2	1	2	1	1	1	1	
Sodium bisulphite	50% solution	20	3	3	1	2	1	1	1	1	
Sodium bromide	10% solution	20	3	3	2(L)	2	1	1	1	1	
Sodium chloride	20% solution	20	3	3	1	2	1	1	1	1	
Sodium chromate	20% solution	20	2	2	1	2	1	1	1	1	
Sodium hydroxide	70% solution	20	2	2	1	3	2	1	1	1	
Sodium meta-phosphate	10% solution	20	2	2	1	2	1	1	1	1	
Sodium metasilicate	10% solution	20	3	3	1	2	1	1	1	1	
Sodium peroxide	10% solution	20	3	3	1	3	1	3	1	1	
Sodium sulphate	20% solution	20	3	3	1	3	1	1	1	1	
Sodium sulphide	25% solution	20	3	3	1	3	1	1	1	1	
Sodium thiosulphate	25% solution	20	3	3	1	3	1	3	1	1	
Steam (water vapour)	Saturated steam	100	1	1	1	1	1	3	2	1	
Sulphur	Molten	130	2	2	1	3	3	3	1	1	
Sulphuric acid	7% solution	20	3	3	1	3	1	1	1	1	
Sulphuric acid	50% solution	20	3	3	3	3	1	1	1	1	
Sulphuric acid	98% solution	20	2	2	1	3	3	3	2	1	
Stearic acid	Liquid	100	3	3	1	2	1	1	1	1	
Sugar solution	10% solution	20	2	2	1	1	1	1	1	1	
Tartaric acid	50% solution	20	3	3	1	3	1	1	1	1	
Tetraethyl lead	Liquid	20	3	3	1	2	3	3	3	1	
Tin(II) chloride	20% solution	20	3	3	3	3	1	1	1	1	
Toluol	Liquid	20	1	1	1	1	3	3	2	1	
Tomato juice	Aqueous solution	20	3	3	1	3	1	1	1	1	
Transformer oil	Aqueous solution	20	2	1	1	2	3	1	2	1	
Trichloroethylene	Aqueous solution	20	2	2	1(L)	2	3	3	1	1	
Turpentine	Liquid	100	2	2	1	1	3	1	1	1	
Urea	Aqueous solution, conc.	20	2	2	1	2	1	1	1	1	
Vegetable oil (edible)	Liquid	20	2	2	1	1	3	1	1	1	
Water, distilled (carbonic)	Liquid	20	3	3	1	1	1	1	1	1	
Water (make-up water)	Liquid	20	2	2	1	1	1	1	1	1	
Wax emulsion	Aqueous solution	50	2	1	1	1	3	1	1	1	
Xylol	Liquid	20	2	2	1	1	3	3	1	1	
Zinc sulphate	20% solution	20-100	3	3	1	2	1	1	1	1	

1 = very suitable      2 = suitable      3 = not advisable      L = risk of pitting corrosion      S = risk of crevice corrosion

For a more detailed chemical resistance chart on valve body, seat and seal materials go to: - <http://globalsupplyline.com.au/catalogue-gsl-valve-API603.html>

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