AUSTRALIAN PIPELINE VALVE®

VALVE CHEMICAL COMPATIBILITY CHART 4

	Aluminum	Brass	Carbon Steel	Ductile Iron / Cast Iron	316 Stainless Steel	17-4PH Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna N (Nitrile)	Delrin	EPDM/EPR	Viton	Hypalon	Neoprene	Nylon	Grafoil	Teflon
Acetaldehyde	B	C	C	C	A		A	A	A	D	A	B	C	D	D	B		A
Acetamine	B	B	B	B	B				A	A				B	B			A
Acetate Solvents	A	B	A	B	A			A	A	D	D		D	D	D			A
Acetic Acid, aerated	B	D	D	D	A			A	A	C	D		C		C	B	A	A
Acetic Acid, Air Free	B	B	D	D	A	A	A	A	A	C	D		D		C	B	A	A
Acetic Acid, crude	C	C	C	C	A	A	A	B	A	D	D		D		D	B	A	A
Acetic Acid, glacial						A			A	D		B	C	C	C	B	A	A
Acetic Acid, pure	C	C	D	D	A	A	A	D	A	D	D		D	A	D	B	A	A
Acetic Acid, 10%	C	C	C	C	A	A	A	B	A	D	B	B	D	C	C	B	A	A
Acetic Acid, 80%	C	C	C	C	A	A	A	B	A	D	D	C	D	D	D	B	A	A
Acetic Acid Vapors	B	D			D	D	B	C	A	D						B	A	A
Acetic Anhydride	B	D	D	D	B	B	B	B	A	D	C	C	D	B	C		A	A
Acetone	A	A	A	A	A	A	A	A	A	D	A	A	D	D	D	A	A	A
Other Ketones	A	A	A	A	A	A	A	A	A	D	A	D	D	D	D			A
Acetyl Chloride	D	A		D	C			B	A	D	D	D	D	D	D			A
Acetylene	A	B	A	A	A	A	A	A	A	B	A	A	A	C	C	A		A
Acid Fumes	B	D	D	D	B		B			C	D			C	B			A
Acrylonite	B	A	A	C	A		B	A	A	D	D	D	C	D	D	A		A
Air	A	A	A	A	A		A	A	A	A	A	A	A	A	A	A		A
Alcohol, Amyl	B	B	B	C	A		B	B	B	C	A	A	B	B	C	A	A	A
Alcohol, Butyl	B	B	B	C	A		A	A	A	B	A	C	A	B	B	A	A	A
Alcohol, Diacetone	A	A	A	A	A		A	B	A	D	A	B	D	C	C	A	A	A
Alcohol, Ethyl	B	B	B	B	B		A	B	A	A	A	A	A	B	B	A	A	A
Alcohols, Fatty	B	B	B	B	A		A		A	B	A			B	B	A	A	A
Alcohol, Isopropyl	B	B	B	B	B		A	B	B	C	A	A	A	B	B	A	A	A
Alcohol, Methyl	B	B	B	B	A		A	A	A	B	A	A	C	A	A	A	A	A
Alcohol, Propyl	A	A	B	B	A		A	A	A	B	A	A	A	B	B	A	A	A
Alumina	A	A							A	A	A	A			A	A		A
Aluminum Acetate	C	D		D	A	B	B	C	B	D	D	A	D	D	D			A
Aluminum Chloride dry	B	B	C	D	C		D	B	B	B	A	A	A	B	B	A	A	A
Aluminum Chloride solution	C				D	C	B	B	A	B	D		A	B	B	A	A	A
Aluminum Fluoride	C		D	D	C		C	B	A	A	C	A	A	B	A			A
Aluminum Hydroxide	A	A	D	D	A	B	B	B	B	A	C	A	A		A			A
Aluminum Nitrate	D	D		D	C		B	C	B	B	D	B	D	B	B			A
Aluminum Oxalate	B						A	B	A									A
Alum (Aluminum Potassium Sulfate)	D	D		D	B	C	B	C	A	B	D		B	B	B		A	A
Alum (Aluminum Sulfate)	C	C	D	D	B	A	B	C	A	A	D	A	A	B	A	A	A	A
Amines	B	B	B	C	A	A	A	B	B	D	C	C	D	D	D	B		A
Ammonia, Alum	C				A		A		A	B	C				B	D	A	A
Ammonia, Anhydrous Liquid	A	D	A	B	A	A	A	B	A	B	D	B	D	B	C	A	A	A
Ammonia, Aqueous	B	D	A	A	A		A	B	B	B	D		A	B	B	B	A	A
Ammonia, Gas, hot	A	D		B	A		A	B	B	C	D	A	D	C	A		A	A
Ammonia Liquor					A		A		B							B	A	A
Ammonia Solutions	C	D	B	B	A		A	B	B	B	D	B	D	D	B	B	A	A
Ammonium Acetate	B	D		B	B		A	B	B	B	D	A	D	D	B			A
Ammonium Bicarbonate	B	B	C	B	B		B	B		B	A	A	A	B	A	B		A
Ammonium Bromide 5%	D				B		B	B			A							A
Ammonium Carbonate	B	B	B	B	B		B	B		C	D	A	B	B	A			A
Ammonium Chloride	D	D	D	D	C	C	B	B	B	B	C	A	A	A	A	D		A
Ammonium Hydroxide 28%	C	D	C	C	B	A	A	D	B	B	D	B	A		A	B	A	A
Ammonium Hydroxide Concentrated	C	D	C	C	B	A	A	C	B	C	D	A	A	A	A		A	A
Ammonium Monosulfate	D					A		B	B	B		D						A
Ammonium Nitrate	B	D	D	D	A	A	B	D	B	A	D	A	A	A	A	C		A
Ammonium Oxiate 5%	A				A		A	B			A							A
Ammonium Persulfate	C	C			A		A	D		D	D	B	B	B	C			A
Ammonium Phosphate	C	D	D	D	B		B	C		A	C	A	A	A	A	A		A
Ammonium Phosphate Di-basic	B	C	D	D	B		B	C	B	A	A		A		A	A		A
Ammonium Phosphate Tri-basic	C	C	D	D	B		B	C	B	A	A		A		A	A		A
Ammonium Sulfate	C	C	C	D	B	B	B	B	B	A	B	A	B	B	A	A	A	A
Ammonium Sulfide	C	D	D	D	B		B	B		A	A	A	D	B	B			A
Ammonium Sulfite	C	C	C	C	A		B	D		B	A	B	A		A			A
Amyl Acetate	B	B	C	C	B	A	A	B	A	D	A	B	D	D	D	D		A
Amyl Chloride	D	B		B	A		A	B	B	D	A	D	D	D	C	B		A
Aniline	C	D	C	C	B		A	B	B	D	D	C	C	D	D	B	A	A
Aniline Dyes	C	C	C	C	A		A	A		C	A	C	B	C	C			A
Apple Juice	B	C	D	D	B		A	A		A	A	B	A	B	A			A
Aqua Regia (Strong Acid)	D	D	D	D	B		B			D	D	D	D	D	D		D	A
Aromatic Solvents	A	A	C	B	A		A	B		D	A	D		A	D			A
Arsenic Acid	D	D	D	D	B		B	D	B	A	D	B	A	B	A		A	A
Asphalt Emulsion	C	A	B	B	A		A	A	A	D	A	D	A	D	C	A		A
Asphalt Liquid	C	A	B	B	A		A	A	A	C	A	D	A	D	C			A
Barium Carbonate	C	B	B	B	B		B	B	A	B	A	A	A	A	A			A
Barium Chloride	D	B	C	C	B	B	C	B		A	A	A	A	B	A			A

Ratings: A-Excellent B-Good C-Poor D-Do not use Blank-No information

www.australianpipelinevalve.com.au

9-15 Boolcunda Avenue Salisbury Plain, South Australia 5109
Telephone +61 (0)8 8285 0033 Fax +61 (0)8 8285 0044
admin@australianpipelinevalve.com.au

VALVE CHEMICAL COMPATIBILITY

	Aluminum	Brass	Carbon Steel	Ductile Iron / Cast Iron	316 Stainless Steel	17-4PH Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna N (Nitrile)	Delrin	EPDM/EPR	Viton	Hypalon	Neoprene	Nylon	Grafoil	Teflon
Barium Cyanide	D	C		C	B		B	D		B	A	B	B	B	B			A
Barium Hydrate	D	D			A		A	B			A							A
Barium Hydroxide	D	C	C	B	B	A	A	B		A	A	B	A	B	A	A		A
Barium Nitrate	B				A		A				A				B			A
Barium Sulfate	D	C	C	C	A		A	B		A	A	B	A	B	A			A
Barium Sulfide	D	D	C	D	B		B	C		A	A	A	A	B	B	B		A
Beer	A	B	D	D	A	A	A	A		B	A	B	A	C	B	A		A
Beet Sugar Liquors	A	A	B	B	A		A	A		A	A	B	A	C	A	A		A
Benzaldehyde	A	A	A	C	A		A	B	B	D	A	A	D	D	D	A		A
Benzene (Benzol)	B	B	B	B	B	B	A	A	B	D	C	D	B	D	D	A	A	A
Benzoic Acid	B	B	D	D	B	A	B	B	A	C	A	D	B	D	C	D		A
Berryllium Sulfate	B	B		B	B		A	B		B	A	B	B	B	B			A
Bleaching Powder wet		B			C		B	D	A	D	D	B	B	B	A	D		A
Blood (Meat Juices)	B	B		D	A	A	A	B		B	A	B	B	B	B			A
Borax (Sodium Borate)	C	D	C	C	A			A	A	B	A	A	A	B	D			A
Bordeaux Mixture					A		A				A							A
Borax Liquors	C	A	C	C	B		A	A	B		A	A	A	D	C			A
Boric Acid	B	C	D	D	B		B	B	A	B	A	B	A	B	B	D	A	A
Brake Fluid	B	B		B	B	A		B		D	B	B	D	B	C			A
Brines, saturated	C	B	D	C	B		B	B	A	A	A	A	A	B	B	C		A
Bromine, dry	C	B	D	D	D		B	A	A	D	D	D	B	D	D	D	B	A
Bunker Oils (Fuel)	A	B	B	B	A		A	A		B	A		A		B			A
Butadiene	B	C	B	B	A		A	C	B	C	A	C	B	D	C			D
Butane	A	A	B	B	A		A	B	A	B	A	D	A	A	B	A		A
Butter					A		A			B	A			D	B			A
Buttermilk	A	D	D	D	A		A	D		A	A	B	A	D	A			A
Butyl Acetate	B	B		B	B		A	B	B	D	B	D	D	D	D			A
Butylene	A	A	A	A	A		A	A		D	A	D	D	D	D	A		A
Butyric Acid	B	C	D	D	B		B	B	A	C	A	C	C	C	C	D		A
Calcium Bisulfite	C	C	D	D	B		B	D	B	A	D	D	A	B	A			A
Calcium Carbonate	C	C	D	D	B		B	B	B	A	A	B	A	B	A	A		A
Calcium Chlorate	B	D		C	B		B	B		B	D	B	B	B	B		B	A
Calcium Chloride	C	B	C	C	B	B	B	B	A	A	A	B	A	B	A	D		A
Calcium Hydroxide	D	C	C	C	B		B	A	A	A	A	A	A	B	B	A		A
Calcium Nitrate	B				B		B			B	C	B		B	B			A
Calcium Phosphate	D	C		C	B		B			B	B	B	B	B	B			A
Calcium Silicate	D	C		C	B		B			B	A	B	B	B	B			A
Calcium Sulfate	B	C	C	C	B	B	B	B	B	A	A	B	A	B	A			A
Caliche Liquor			B		A		A			B	A			B	B			A
Camphor	C	C		C	B		C	C		B	A	B	B	B	B			A
Cane Sugar Liquors	A	B		B	A		A	B		B	A	B	B	C	B			A
Carbonated Beverages	B	B	D	B	B	B	B	C		B	A	B	B	D	B		A	A
Carbonated Water	A	B	B	A	A	B	A	B		A	A	A	A	D	A		A	A
Carbon Bisulfide	A	C	B	B	B		B	B		D	A	D	A	D	D			A
Carbon Dioxide, Dry	A	A	A	B	A	A	A	A		C	A	B	B	B	B		A	A
Carbonic Acid	A	D	D	D	B	B	A	B		B	A	B	A	B	B		A	A
Carbon Monoxide	A	A		B	A	A	A	A	A	B	A	B	B	C	D	A		A
Carbon Tetrachloride, dry	B	C	B	C	A	A	A	A	A	D	A	D	B	D	D	A	A	A
Carbon Tetrachloride, wet		D	D	D	B		B	B	B	D	B	D	B	D	D	A	A	A
Casein	C	C		C	B		B	C		B	A	B	B	B	B			A
Caster Oil	A	A	B	B	A		A	A	A	A	A	B	A	B	B	A		A
Caustic Potash					A		A	B		B	D			B	B			A
Caustic Soda	D		B	B	A		A	A		C	D	B	B	B				A
Cellulose Acetate	B	B		B	B			B	B	D	C	B	D	D	D			A
China Wood Oil (Tung)	A	C	C	C	A		A	A	A	A	A	D	A	B	B	A		A
Chlorinated Solvents	D	C	C	C	A		A	B		D	A	D	C	D	D			A
Chlorinated Water	C				C	D	A	D	D	B	D		A	B	A	D	B	A
Chlorine Gas, dry	B	C	B	B	B	C	A	A	A	C	D	D	B	C	D	D	A	A
Chlorobenzene, dry	B	B	B	B	A		A	B	B	D	B	D	A	D	D	A		A
Chloroform, dry	D	B	B	C	A	B	A	A	B	D	A	D	B	D	D	B		A
Chlorophyll, dry	B	B		B	B		A	B		B		B	B	B	B			A
Chlorosulfonic Acid, dry	B	C	B	B	B		B	B	A	D	D	D	D	D	D	D		A
Chrome Alum	C	C	B	C	A		A	B		B	B	B	B	B	B	D		A
Chromic Acid < 50%	C	D	D	D	C	C	B	C	B	D	D	C	C	B	D	D		A
Chromic Acid > 50%	D	D	D	C	C	D	B	D	B	D	D	C	C	B	D	D		A
Chromium Sulfate	B	C		D	B		C	B		B	C	B	B	B	B			A
Cider	B				A		B	A			A			D				A
Citric Acid	B	C	D	D	B	C	A	B	A	B	A	B	A	A	A	B	A	A
Citrus Juices	C	B	D	D	B		A	A		A	A		A	D	A			A
Coca-Cola Syrup					A		A			B	A		B	D	B			A
Coconut Oil	B	B	C	C	B		A	B		A	A				C			A
Coffee	A	A		D	A		A	B		A	A				A			B
Coffee Extracts, hot	A	B	C	C	A		A	A			A					D		A
Coke Oven Gas	A	C	B	B	A		A	B		C	D	D	B	C	D	C		A

Ratings: A-Excellent B-Good C-Poor D-Do not use Blank-No information

VALVE CHEMICAL COMPATIBILITY

	Aluminum	Brass	Carbon Steel	Ductile Iron / Cast Iron	316 Stainless Steel	17-4PH Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna N (Nitrile)	Delrin	EPDM/EPR	Viton	Hypalon	Neoprene	Nylon	Grafoil	Teflon
Cooking Oil	B	B	B	B	A		A	A		A	A	D	A	C	B			A
Copper Acetate	D	D	D	D	A		A	C	B	C	D	B	D	D	C			A
Coppper Carbonate	D				A		A				A							A
Copper Cyanide	D	D		D	A		A	C		A	A	B	B	B	A			A
Copper Nitrate	D	D	D	D	B		B	D		A	A	B	A		A			A
Copper Sulfate	D	D	D	D	B	B	B	C	A	A	A	A	A	A	A	A	A	A
Corn Oil	B	B	C	C	B		B	B		A	A	C	A	C	C			A
Cottonseed Oil	B	B	C	C	B		B	B		A	A	C	B	C	B			A
Cresol					B		B			D	D	D	D	D	D			A
Cresote Oil	B	B	B	B	B	B	A	B	B	C	D	D	A	D	D			A
Cresylic Acid	C	C	C	D	B		B	B		D	D	D	B	D	D			A
Crude Oil, sour	B	C	B	C	A		A	B		A	A	D	A	C	B			A
Crude Oil, sweet	A	B	B	B	A		A	A		A	A		A		B			A
Cupric Nitrate	D				A		A	D			D							A
Cutting Oils, Water/Emulsions	A	A	B	B	A		A			A	A		A		B			A
Cyanide Plating Solution	D	D		D	B		B	D		B	D	B	B	B	B			A
Cyclohexane	A	A	A	A	A		A	B	B	C	A	D	A	D	D	A		A
Cyclohexanone	B	B			A		A	B	B	D	A				D	A		A
Detergents, synthetic	B	B		B	B		A	B		B	A	B	A	B	B			A
Dextrin	B	B		B	B		B	B		B	A	B	B	B	B			A
Dichloroethane				C	C		B	B		D	D	D			D			A
Dichloroethyl Ether	B	B		B	B		B			D	D	D	D	D	D			A
Diesel Oil Fuels	A	A	A	A	A		A	A		A	A	D	A	D	C			A
Diethylamine	B	B	A	B	A		A	B		B	A	C	D	C	C	B		A
Diethyl Benzene					B		B			D	C	D			D			A
Diethylene Gycol	B	B		A	A		A	B		A	A	A	B	B	A			A
Diethyl Sulfate	B	B		B	B		B	B		C	A	C	B	D	C			A
Dimethyl Formamide	B	B		B	A		A	B		B	A	D	D	D	D			A
Dimethyl Phthalate										B	C		D	B	B			A
Dioxane	B	B		B	B		B	B		D	C	C	D	D	D		A	A
Dipentane (Pinene)	A	A		A	A		A			B	A	D	B	D	D			A
Disodium Phosphate	B				B		B	C		B	A		B	B	B			A
Dowtherm	A	A	B	B	A		A	A		D	A	D	A	D	D	C	A	A
Drilling Mud	B	B	B	B	A		A	B		A	A	A	A	B	C			A
Dry Cleaning Fluids	A	C	B	B	A		A	B		D	A		B		D			A
Drying Oil	C	C	C	B	B		B	B		A	A				B			A
Enamel		A								B	A	D			B			A
Epsom Salts (MgSo4)	A	B	C	C	B		B	B		A	A		A	D	A	B		A
Ethane	A	B	C	C	B		B	B		A	A	D	A		B			A
Ethers	A	B	A	B	A	B	A	B		D	C	C	C	D	D			A
Ethyl Acetate	A	C	B	C	B	A	B	B	B	D	C	C	D	D	D	A		A
Ethyl Acrylate	C	B	C	C	A		A	B	A	D	B	C	D	D	D	A		A
Ethyl Benzene							A		A	C	A	D			D	B		A
Ethyl Bromide	B	A		B	B		C	B		B	A	B	B	D	B			A
Ethyl Chloride, dry	B	B	B	B	A	A	A	B	B	C	A	C	B	D	C	A		B
Ethyl Chloride, wet	D	C	D	D	B		B	B	B	C	A	B	B	D	C	A		A
Ethylene Chloride	C				A		A	B	B	D	A		D		A			A
Ethylene Dichloride					B		A	B		D	C	D	D	D	D	A	A	A
Ethylene Gylcol	A	B	B	B	B	A	A	B	A	A	A	A	A	B	B	A		A
Ethylene Oxide	C	C	B	B	B		B	B	A	D	A	D	D	D	D	D		A
Ethyl Ether	B	B		C	A		A	A	B	D	A	D	D	D	D			A
Ethyl Silicate	A	B		B	B		B	B		B	A	B	B	B	C			A
Ethyl Sulfate					B		B			B	A	C	A		B			A
Fatty Acids	B	C	D	D	A		A	B	A	B	A	D	A	D	B	A	A	A
Ferric Hydroxide					A		A	A		B	A							A
Ferric Nitrate	D	D	D	D	C	B	A	D	B	A	A	A	A	B	A			A
Ferric Sulfate	D	D	D	D	B	B	A	D		A	A	A	A	A	A	C		A
Ferrous Ammonium Citrate	B				B		B				A							A
Ferrous Chloride	D	B	D	D	D		D	D	D	A	A	A	A	B	A	C	A	A
Ferrous Sulfate	C	B	D	D	B		B	B	B	A	A	A	A	B	A		A	A
Ferrous Sulfate, Saturated	C	C	C	C	A		A	B	B	C	A	B	B	B	C			A
Fertilizer Solutions	B	C	B	B	B		B	B		B					B			A
Fish Oils	C	B	B	B	A		A	A		A	A	D	A	D	B			A
Flue Gases	C	B		B	A		A	B		C	C	D	C	B	C			A
Fluoboric Acid	B				B		A			A	D			B	B			A
Fluorosilicic Acid	D	B	D	D	B		B	A	B	C	C	C	C	C	C			A
Formaldehyde, cold	A	A	A	B	A	A	A	A	B	B	A	B	D	C	C	A		A
Formaldehyde, hot	B	B	D	D	C		B	B	B	B	A			B	B			A
Formic Acid, cold	D	B	D	D	B	B	A	B	A	D	D		B	C	B	A	A	A
Formic Acid, hot	D	B	D	D	B	D	B	B	B	D	D		A		A	D	A	A
Freon Gas, dry	B	B	B	B	A	A	A	A	B	C	A	C	C	B	C	A	A	A
Freon 11, MF, 112, BF	B	B		C	A		A	B	B	C	A	C	D	B	C	A	A	
Freon 12, 13, 32, 114, 115	A	A		B	A		A	B	B	B	A	A	D	B	A	A	A	
Freon 21, 31	B	B		C	A		A	B	B	D	A	D	D		D	A	A	

Ratings: A-Excellent B-Good C-Poor D-Do not use Blank-No information

VALVE CHEMICAL COMPATIBILITY

	Aluminum	Brass	Carbon Steel	Ductile Iron / Cast Iron	316 Stainless Steel	17-4PH Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna N (Nitrile)	Delrin	EPDM/EPR	Viton	Hypalon	Neoprene	Nylon	Grafoil	Teflon
Freon 22	A	A		B			A		B	D	A	D	D		B	A	A	
Freon 113, TF	B	B		C	A		A	B	B	B	A	C	C		C	A	A	
Freon, wet	D	D		D	C	B	B	B	B	B	A	B	D	B	B	D	A	A
Fruit Juices	B	B	D	D	A		A	B		A	A	A	A	C	A			A
Fuel Oil	A	B	B	B	A		A	B		A	A	D	A	C	C			A
Fumaric Acid							A			B	A				B			A
Furfural	A	A	A	B	A	B	A	B	B	D	A	C	D	D	C			A
Gallic Acid 5%	A	C	D	D	B		B	B	B	B	A	C	A	C	B	A		A
Gas, Manufactured	B	B	B	B	B		B	A		A	A		A		A	A		A
Gas, Natural	B	B	B	B	A		B	A		A	A	D	A	B	A	A		A
Gas, Odorizers	A	A	B	B	B		A	B		B	A		A		B	A		A
Gasoline, Aviation	A	A	A	B	A		A	A	A	C	A		A		D	A	A	A
Gasoline, Leaded	A	A	A	A	A		A	B	A	C	A		A	B	D	A	A	A
Gasoline, Motor	A	A	A	B		A	A	A	A	C	A	D	A	D	D	A	A	A
Gasoline, Refined	A	B	B	B	A		A	B	A	C	A	D	A	D	C	A	A	A
Gasoline, Sour	A	B	B	B	A		A	C	A	C	A	D	A	C	D	B	A	A
Gasoline, Unleaded	A	A	A	B	A		A	A	A	C	A		A	B	D	A	A	A
Gelatin	A	A	D	D	A		A	B		A	A	A	A	B	A	A		A
Glucose	A	A	B	B	A		A	A	A	A	A	A	A	B	A	A		A
Glue	A	B	A	B	B		A	B	A	A	A	B	A	B	A	A		A
Glycerine (Glycerol)	A	B	C	B	A	A	A	A	A	C	A	A	B	A	D	A	A	
Glycol Amine	C	D		B	B	A			D	A	C	D	D	C			A	
Gycol	A	B	C	B	B		A	B		B	C	A	A	B	A			A
Graphite	B	B		C	B		A	B		B	A	B	B	B	B			A
Grease	B	C	A	A	A		A	B		A	A	D	A	D	B			A
Helium Gas	B	B		B	A		A	B	A	B	A	B	B	B	B			A
Heptane	A	A	B	B	A		A	B	A	A	A	D	A	B	B			A
Hexane	A	B	B	B	A		A	B	A	A	A	D	A	B	C	A		A
Hexanol, Tertiary	A	A	A	A	A		A	A	A	A	A	D	B	C	C	A		A
Hydrolic Oil, Petroleum Base	A	B	A	B	A		A	A		A	A	D	A		B			A
Hydrazine	C	D		D	B		B	D		C	D	B	D	C	C			A
Hydrocyanic Acid	A	D	D	C	A		A	C	B	B	D	B	A	B	B			A
Hydrofluoslicic Acid	D	A	D	D	C		B	B		B	A	B	A	B	B		A	A
Hydrogen Gas, cold	A	B	B	B	A		A	A		B	A	B	A	B	B	A		A
Hydrogen Gas, hot	C		B		B		A		A	B	A	B			B			A
Hydrogen Peroxide, Concentrated	A	D	D	D	B		B	D	D	D	D	B	B	B	D	D		A
Hydrogen Peroxide, Dilute	A	C	D	D	B		B	D	D	A	D	B	A		B	D		A
Hydrogen Sulfide, Dry	A	C	B	B	A	B	B	B	B	C	C	A	A	B	A	D	A	A
Hydrogen Sulfide, Wet	B	D	C	D	B		B	C	D	C	C	B	A	B	B	D	A	A
Hypo (Sodium Thiosulfate)	B	C	D	C	B		B	B		A	A	A	A		A			A
Illuminating Gas	A	A	A	A	A		A	A		C	A	D	A	D	C			A
Ink-Newsprint	C	C	D	D	A		A	B		A	A	B	A	B	B	A		A
Iodoform	C	C	B	C	A		A	C			A		A					A
Iso-Butane					B		B			B	A	D			D			A
Iso-Octane	A	A	A	B	A		A	A		A	A	D	A	B	C			A
Isopropyl Acetate					B		A			D	A	D			D		A	A
Isopropyl Ether	B	A	A	B	A		A	B	A	C	A	D	D	D	C	A	A	A
J P-4 Fuel	A	A	A	B	A		A	A	A	A	A		A		C	A		A
J P-5 Fuel	A	A	A	A	A		A	A	A	B	A		A		C	A		A
J P-6 Fuel	A	A	A	A	A		A	A	A	A	A		A		C	A		A
Kerosene	A	A	B	B	A		A	A	A	A	A	D	A	D	C	A	A	A
Ketchup	D	D	D	D	A		A	B		A	A		A	B	A			A
Ketones	A	A	A	A	A		A	A		D	A	D	D	D	D			A
Laquer (and Solvent)	A	A	C	C	A		A	A		D	A	D	D	D	D			A
Lactic Acid Concentrated cold	C	D	D	D	A	D	A	D	A	B	D	B	A	B	A	A	A	A
Lactic Acid Concentrated hot	C	D	D	D	B	D	A	D	B	C	D	B	B	B	C		A	A
Lactic Acid Dilute cold	A	D	D	D	A	B	A	C	A	B	D	B	A	B	A		A	
Lactic Acid Dilute hot	B	D	D	D	A	D	A	D	B	C	D		D		D		A	A
Lactose	B	B		C	B		B	B		B	A	B	B	B	C			A
Lard	A	B		A	A		A			B	A	C			C			A
Lard Oil	B	B	C	C	B		A	B		A	A	B	A	D	B			A
Lead Acetate	D	C	D	D	B		B	B		A	A	B	B		B			A
Lead Sulfate	D	C		D	B		B	B		B	A	B	B	B	B			A
Lecithin	D	C		C	B		B	B		D	A	D	B	D	D			A
Linoleic Acid	A	B	B	B	A		A	B		B	A	D	B	D	B			A
Linseed Oil	A	B	A	A	A		A	B		A	A	D	A	B	C			A
Lithium Chloride	D	B		B	B		A	B		B	A	B	B	B	B			A
LPG	A	A	B	B	B		B	B		A	A	D	A	D	B			A
Lubricating Oil Petroleum Base	A	B	A	A	A		A	B		A	A	D	A	C	B			A
Ludox	D	D		B	B		B	B		B	B	B	B	B	B			A
Magnesium Bisulfate	B	B	B	B	A		A	B		B	A	B	B	B	B			A
Magnesium Bisulfide	C	D		D	B		B	B		B	A	B	B	B	B			A
Magnesium Carbonate	B	B		B	A		A	B		B	A	B	B	B	B			A
Magnesium Chloride	D	B	C	D	B	C	B	B	A	A	A	A	A	A	A	C		A

Ratings: A-Excellent B-Good C-Poor D-Do not use Blank-No information

VALVE CHEMICAL COMPATIBILITY

	Aluminum	Brass	Carbon Steel	Ductile Iron / Cast Iron	316 Stainless Steel	17-4PH Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna N (Nitrile)	Delrin	EPDM/EPR	Viton	Hypalon	Neoprene	Nylon	Grafoil	Teflon
Magnesium Hydroxide	D	B	B	B	A	A	A	B	B	A	A	A	A	A	A	D		A
Magnesium Hydroxide Hot	D	D	B	B	A	A	A	A	B	B	A		A	B	B	D		A
Magnesium Nitrate	B				A		A	B		B	A		B	B	A			A
Magnesium Sulfate	B	B	B	B	A	A	A	B	A	A	A	A	A	A	A	A		A
Maleic Acid	B	B	B	C	B		B	B	A	B	A	D	A	D	B			A
Maleic Anhydride	B	B		B	B		B	B	B	D	C	D	B	D	D			A
Malic Acid	B	B	D	D	B		B	B		A	A		A		A			A
Malt Beverage					A		B	A		A	A	B	A		A			A
Manganese Carbonate	B				B		A			B	A							A
Maganese Sulfate	B	B		D	A		A	B		B	A	B	B	B	B		A	A
Mayonnaise	D	D	D	D	A		A	B		A	A		A		A			A
Meat Juices	B	D			A		A			B	A			B	B			A
Melamine Resins				D	C		C			B	A			D	B			A
Methanol	B	B		B	A		A	B		B	C	D	B	D	B			A
Mercuric Chloride	D	D	D	D	B		B	D	B	A	A	A	A	B	B	C		A
Mercuric Cyanide	D	D	D	D	A		A	C	B	A	A	A	A	B	B			A
Mercurous Nitrate	D	D			A		A	D			A		B	B				A
Mercury	D	D	A	A	A		A	B	B	A	A	A	A	B	A			A
Methane	A	A	B	B	A		A	B	A	A	A		A		B			A
Methyl Acetate	A	A	B	B	A		A	B	A	D	B	B	D	D	D	A		A
Methyl Acetone	A	A	A	A	A		A	A		D	B	A	D	D	D	A		A
Methylamine	A	D	B	B	A		A	C	B	D	A	B	D	D	D	A		A
Methy Bromide 100%	C	C		D	B		A	B		B	A	D	B	D	D			
Methyl Cellosolve	A	A	B	B	A		A	B	B	C	A	B	D	D	D	B		A
Methyl Cellulose					A		A		B	D	A				D			A
Methyl Chloride	D	B	B	B	A		A	B		D	A	D	B	D	D	A		A
Methyl Ethyl Ketone	A	A	A	A	A		A	A	B	D	A	B	D	D	D	A	A	A
Methylene Chloride	C	A	B	B	A		A	B	B	D	A	D	C	D	D	A		A
Methyl Formate	C	A	C	C	B		A	B	B	D	A	B	D	B	B			A
Methyl Isobutyle Ketone					A		A			D	A				D		A	A
Milk & Milk Products	A	B	D	D	A		A	B		A	A	A	A	B	A	A		A
Mineral Oils	A	B	B	B	A		A	A		A	A	D	A	C	B			A
Mineral Spirits	A	B	B	B	B		B	B		A	A		A		C			A
Mixed Acids (cold)	D	D	C	C	B		B	C		D	D	D	B	D	D	C		A
Molasses, crude	B	A	A	A	A		A	A		A	A		A	B	A	A		A
Molasses, Edible	A	A	C	C	A		A	A		A	A		A		A	A		A
Molybdic Acid					A		A				A							A
Monochloro Benzene Dry					B		B	B		D	C				D		A	A
Morpholine	B	B		B	A		A	B		D	A	B	D	D	D			A
Mustard	B	A	B	B	A		A	A		A	A		A		A			A
Naptha	A	B	B	B	B		B	B	A	B	A	D	A	C	C	A		A
Napthalene	B	B	B	B	B		B	B	B	D	A	D	A	D	D	A		A
Natural Gas, Sour	B	B	B	B	A		A	D	A	A	A	D	A	D	A	A		A
Nickel Ammonium Sulfate	D	D	D	D	A		A	C		A	C	B	D	B	B	A		A
Nickel Chloride	D	D	D	D	B		A	B	A	A	D	B	A	B	A	C	A	A
Nickel Nitrate	C	D	D	D	B		A	B		A	C	A	A	B	A			A
Nickel Sulfate	D	D	D	D	B		A	B	B	A	C	B	A	B	A	A	A	A
Nicotinic Acid	A	A	B	C	A		A	A		D	C	D	B	D	D			A
Nitric Acid 10%	D	D	D	D	A	A	A	D		C	D		A		B	D	A	A
Nitric Acid 30%	D	D	D	D	A	D	A	D		C	D	B	A	D	C	D	B	A
Nitric Acid 80%	B	D	D	D	C	D	B	D		D	D	B	B	D	D	D	B	A
Nitric Acid 100%	B	D	D	D	A	D	A	D		D	D	D	B	C	D	D	B	A
Nitric Acid Anhydrous	B	D	D	C	A	D	A	D		D	D	D	A	D	D	D	B	A
Nitorbenzene	C	D	B	B	A		A	B	B	D	B	C	C	D	D	A		A
Nitrogen	A	A	A	A	A		A	A		A	A	B	A	B	A			A
Nitrous Acid 10%	D	D	D	D	B		B	D		C	B		A		A			A
Nitrous Gases	B	D	B	C	A		A	D			B							A
Nitrous Oxide	C	B	B	C	B		B	D	B	B	A		A		B	A		A
Oils & Fats	B				A		A			B	A	D				A		A
Oils, Animal	A	A	A	A	A		A	B	A	A	A	B	B	C	B	A		A
Oils, Petroleum Refined	A	B	A	A	A		A	A	A	A	A	D	A	B	B	A		A
Oils, Petroleum Sour	A	C	B	C	A		A	A	A	B	A	D	A	B	B	A		A
Oils, Water Mixture	A	A	B	B	A		A		A	A	A		A		B	A		A
Olaic Acid	B				B		B	A		D	C		C		D	A		A
Oleic Acid	B	B	C	C	B		A	B	B	B	C	D	A	D	C	A	A	A
Oleum	B	C	B	D	B		B	C	B	D	D	D	C	B	D	D		A
Oleum Spirits	D	D		D	D		B	D		C	D	D	A	D	D	D		A
Olive Oil	B	C	B	B	A		A	A		A	A	B	A	B	B	A		A
Oxalic Acid	C	B	D	D	B	D	B	B		C	C	B	A	B	B	D	A	A
Oxygen	A	A	B	B	A	A	A	A	A	B	D	A	A	A	B	D		A
Ozone, Dry	B	B	C	C	A		A	A	A	D	C	B	B	B	D	D		A
Ozone, Wet	B	B	C	C	A		A	A	A	D	C	B	B	B	D	D		A
Paints & Solvents	A	A	A	A	A		A	A		D	A	D	B	D	D			A
Palmitic Acid	B	B	C	C	B		B	B		B	A	B	A	D	B	D		A

Ratings: A-Excellent B-Good C-Poor D-Do not use Blank-No information

VALVE CHEMICAL COMPATIBILITY

	Aluminum	Brass	Carbon Steel	Ductile Iron / Cast Iron	316 Stainless Steel	17-4PH Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna N (Nitrile)	Delrin	EPDM/EPR	Viton	Hypalon	Neoprene	Nylon	Grafoil	Teflon
Palm Oil	A	B	C	C	B		A	A		B	A	D	A	D	B	A		A
Paper Pulp	D	B		B	A		A	B		B	A	B	B	B	B	A		
Paraffin	A	A	B	B	A		A	A	A	A	A	D	A	B	C	A		A
Paraformaldehyde	B	B	B	B	B		B	B		B	A	D			B			A
Parldehyde					B		B			B	A	D			B		A	A
Pentane	A	A	B	B	A		A	B		A	A	D	A		B			A
Perchlorethylene, dry	B	C	B	B	A		A	B	B	D	B	D	A	D	D	A		A
Petrolatum (Vaselien Petroleum Jelly)	B	B	C	C			A	A		A	A		A		B			A
Phenol	A	B	D	D	A	B	A	A	A	D	C	D	B	D	D	D		A
Phosphate Ester 10%	D	D	A	A	A		A	A		D	A	A				A		A
Phosphoric Acid 10%	D	D	D	D	D	B	B	D		B	D	B	A	B	A	D	A	A
Phosphoric Acid 50% Cold	D	D	D	D	B	B	B	C		B	D	B	A	B	B	D	A	A
Phosphoric Acid 50% Hot	D	D	D	D	D	D	B	C		B	D	B	A	B	B	D	A	A
Phosphoric Acid 85% Cold	D	D	B	B	A	C	B	A		C	D		B	B	C	D	A	A
Phosphoric Acid 85% Hot	D	D	C	C	B	D	B			C	D			B	C	D	A	A
Phosphoric Anhydride	A				A		A			D	B		B		D	D	A	A
Phosphorous Trichloride	D		B	C	A		A			D	D	B	B		D	D	A	A
Phthalic Acid	B	B	C	C	B		B	A	B	C	B		A		C	A		A
Phthalic Anhydride	B	B	C	C	B		B	A	A	C	A		A		C	A		A
Picric Acid	C	C	D	D	B	C	B	D	B	C	D	B	B	B	A	B		A
Pineapple Juice	A	C	C	C	A		A	A		A	A		A	D	A			A
Pine Oil	B	B	B	B	A		A	B		A	A	D	A	D	D			A
Pitch (Bitumen)					A		A			C	A	D			C			A
Polysulfide Liquor	D	D		B	B		A	B		B	D	B	B	B	B			A
Polyvinyl Acetate	B	B		B	B		B	B			A	B		B	C			A
Polyvinyl Chloride	B	B		B	B		B	B			A	B		B	C			A
Potassium Bicarbonate	A				A		A	B		B	A							A
Potassium Bichromate	A				A		A	A		B	B		B		B			A
Potassium Bisulfate	B				A		A	B		B	A		A	C	B			A
Potassium Bisulfite	C	C	D	D	B		B	D		A	A	B	A	C	A			A
Potassium Bromide	C	C	D	D	A	C	B	B		A	A	B	A	B	A			A
Potassium Carbonate	D	B	B	B	B	A	B	B		A	A	B	A	B	A			A
Potassium Chlorate	C	B	B	B	B	B	B	C		A	A	B	A		A			A
Potassium Chloride	D	C	C	B	B	B	A	B	B	A	A	A	A	B	A	A		A
Potassium Chromate	B	B		B	B		B	B		B	A	B	B	B	A			A
Potassium Cyanide	D	D	B	B	B		B	B	B	A	A	A	A	B	A			A
Potassium Dichromate	A	D	C	C	B		A	B		A	A	B	A	B	A			A
Potassium Ferricyanide	B	D	C	C	A	B	B	B		A	A	B	A		A			A
Potassium Ferrocyanide	B	B	C	C	B		B	A		A	A		A		A			A
Potassium Hydroxide Dilute Cold	D	D	A	A	B	B	B	A		A	D		D	B	B	B		A*
Potassium Hydroxide to 70%, Cold	D	D	B	B	B	C	B	A		B	D	B	D	B	B	B		A*
Potassium Hydroxide Dilute Hot	D	D	B	B	B	C	B	A		B	D				B			A*
Potassium Hydroxide to 70%, Hot	D	D	A	B	B	D	B	A		C	D	A		A	B			A*
Potassium Iodide	D	D	C	C	B	B	B	C		A	A	B	A		A			A
Potassium Nitrate	A	B	B	B	B	B	B	B	B	A	A	B	A	B	A			A
Potassium Oxalate	C				A		A				A							A
Potassium Permanganate	B	B	B	B	B	B	B	B	B	A	A	B	A	B	A			A
Potassium Phosphate	D	C		C	B		B	B	B	A	A	A	A	B	A	A		A
Potassium Phosphate Di-basic	B	B	A	A	A		A	B	B	A	A	B	A		A	A		A
Potassium Tri-basic	D		A	A	B		B	B		B		B			B	A		A
Potassium Sulfate	A	B	B	C	A	A	A	B		A	A	A	A	B	A	A		A
Potassium Sulfide	B	B	B	B	A		A	C	A	A	A	B	B	B	B	A		A
Potassium Sulfite	B	B	B	B	A		A	C	B	B	A	A	B	B	B	A		A
Producer Gas	B	B	B	B	B	A	B	A		A	A	D	A		B			A
Propane Gas	A	A	B	B	B	A	A	B	A	A	A	D	A	B	B	A		A
Propyl Bromide	B	B		B	B		A	B		B	A	B	B	D	B			A
Propylene Glycol	A	B	B	B	B		B	B		A	C	B	A	B	A			A
Pyidine	B			B	B		A			D	D		D		D			A
Pyrolgalic Acid	B	B	B	B	B	B	A	B		A	A		A		A			A
Quench Oil	A	B	B	B	A		A			A	A		A	B	B			A
Quinine, Sulfate, dry					A	B	A	B			A							A
Resins & Rosins	A	A	C	C	A	B	A	A		C	A		A		C	A		A
Resorcinol						B		B										A
Road Tar	A	A	A	A	A		A	A		B	A	D	A	D	C			A
Roof Pitch	A	A	A	A	A		A	A		B	A		A		C			A
Rosin Emulsion	A	B	C	C	A		A	A		D	A		B		C			A
R P-1 Fuel	A	A	A	A	A		A	A		B	A		A		C			A
Rubber Latex Emulsions	A	A	B	B	A		A				A		A					A
Rubber Solvents	A	A	A	A	A		A	A		D	C		D		C			A
Salad Oil	B	B	C	C	B		A	B		A	A	B	A	B	A			A
Salicylic Acid	C	C	D	D	A		B	B		A	A	B	A	B	A			A
Salt (NaCl)	B	B	C	C	B		A	A		A	A		A		A			A
Salt Brine	B	B		D	B		B	B		A	A	B	B	D	D	C		A
Sauerkraut Brine					B		B				C							A

Ratings: A-Excellent B-Good C-Poor D-Do not use Blank-No information * Do not use reinforced or poly-fill, pure PTFE only

VALVE CHEMICAL COMPATIBILITY

	Aluminum	Brass	Carbon Steel	Ductile Iron / Cast Iron	316 Stainless Steel	17-4PH Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna N (Nitrile)	Delrin	EPDM/EPR	Viton	Hypalon	Neoprene	Nylon	Grafoil	Teflon
Sea Water	C	C	D	D	B		B	A		A	A	A	A	C	A	C		A
Sewage	C	C	C	D	B	A	B	B		A	B	B	B	B	C			A
Shellac	A	A	A	B	A		A	A		A	A				A			A
Silicone Fluids	B	B		B	B		B			B	A		B	B	B			A
Silver Bromide	D				A	C	A	B			D							A
Silver Cyanide	D	D		D	A			A	B		B	D		B	B	B		A
Silver Nitrate	D	D	D	D	A		A	D		C	A	A	A	B	C			A
Silver Plating Sol.	B				A		A				D				B			A
Soap Solutions (Stearates)	C	A	A	B	A		A	A		A	A	A	A	B	B			A
Sodium Acetate	B	B	C	C	B		B	B	B	B	A	B	A	D	B	A		A
Sodium Aluminate	D	B	C	C	A		B	B	B	A	A	B	A	B	A	A		A
Sodium Benzoate	B				B		B	B			B							A
Sodium Bicarbonate	B	B	C	C	B		A	B		A	B	A	A	B	A			A
Sodium Bichromate	A				B		B			D	A			B				A
Sodium Bisulfate 10%	D	B	D	D	A		A	B		A	D	B	A	B	A	A		A
Sodium Bisulfide 10%	D	B	D	D	A		B	B	B	A	D	B	A	B	A	A		A
Sodium Borate	B	B	C	C	B		B	B		A	A	B	A	B	A			A
Sodium Bromide 10%	B	B	C	D	B		B	B		A	A	B	A		A			A
Sodium Cargonate (Soda Ash)	D	B	B	B	A		A	B	B	A	A	B	A	B	A	A		A
Sodium Chlorate	C	B	C	C	B		B	C	B	A	A	B	A	B	A		B	A
Sodium Chloride	B	B	C	C	B		A	A	B	A	A	B	A	B	A	A	A	A
Sodium Chromate	D	C	B	B	A		B	B		A	A	B	A		A			A
Sodium Citrate	D				B		B				A							A
Sodium Cyanide	D	D	B	B	A	B	A	B		A	A	B	A	B	A			A
Sodium Ferricyanide	A				A		A	B			A							A
Sodiulm Fluoride	C	C	D	D	B	B	A	B		A	A	B	A	B	A	C		A
Sodium Hydroxied 20% Cold	D	A	A	A	A	A	B	A		A	D	B	B	B	A	C	A	A*
Sodium Hydroxide 20% Hot	D	A	B	B	A	C	A	A		B	D	B	C	B	B	C	A	A*
Sodium Hydroxide 50% Cold	D	A	A	B	A	B	A	A		A	D	B	C	B	A	C	A	A*
Sodium Hydroxide 50% Hot	D	A	B	B	A	C	A	B		B	D		C	B	B	C	A	A*
Sodium Hydroxide 70% Cold	D	A	A	A	A	B	B	A		B	D	B	C	B	C	C	A	A*
Sodium Hydroxide 70% Hot	D	B	B	B	A	C	B	B		D	D	B	C	B	D	C	A	A*
Sodium Hypochlorite (Bleach)	D	D	D	D	D	D	C	D	A		D		A			B		A
Sodium Hyposulfite	B				B		B	B			A							A
Sodium Lactate	D				A		A	B			A							A
Sodium Metaphosphate	A	C	B	C	B	B	B		A	A	B	B		B	A		A	
Sodium Metasilicate Cold	B	B	C	C	A		A	A		B	A		B	B	A	A		A
Sodium Metasilcate Hot	B	B	D	D	A		A	A	A		A							A
Sodium Nitrate	A	B	B	B	A	B	A	B	B	C	A	B	A	B	B	A		A
Sodium Nitrite	A				B		B	C	B	C	B	A	B		D	A		A
Sodium Perborate	B	B	B	B	B	B	B	B	B	C	A	A	A	C	B			A
Sodium Peroxide	C	D	C	C	B	B	B	B	B	C	A	A	A	B	B			A
Sodium Phosphate	D	C	C	C	B	B	B	B	B	B	B	A	A	B	C	A		A
Sodium Phosphate Di-basic	D	C	C	C	B		B	B	B	A	A	A	A		A	A		A
Sodium Phosphate Tri-basic	D	C	C	C	B		B	B	B	B	A	A	A		B	A		A
Sodium Polyphosphate					B		B	B	B	B		A			B			A
Sodium Salicylate					A		A				A							A
Sodium Silicate	B	B	B	B	B		B	B		A	A	B	A	B	A	D		A
Sodium Silicate, hot	C	C	C	C	B		B	B		A	B					D		A
Sodium Sulfate	B	B	B	B	A	B	A	A		A	A	A	A	A	A			A
Sodium Sulfide	C	D	B	B	B	A	B	B		A	A	B	A	B	A	A		A
Sodium Sulfite	B	C		A	A	A	A	B	B	A	A	B	B	B	A	D		A
Sodium Tetraborate				A	A		A			A	A	B			A			A
Sodium Thiosulfate	B	C	B	C	B	A	B	B		A	A	A	A	B	A	A		A
Soybean Oil	B	B	C	C	A		A	A		A	B	B	A	D	B			A
Starch	B	B	C	C	B		A	A		A	A	C	A	B	A			A
Steam (212°F)	A	A	A	A	A	A	A	B		D	D	B	C	B	D		A	A
Stearic Acid	A	C	C	C	B		B	B	A	A	A	B	A	B	C	A	A	A
Styrene	A	A	A	B	A		A	B	A	D	A	D	B	D	D	A		A
Sugar Liquids	A	A	B	B	A		A	A		A	A	B	A	D	A			A
Sugar, Syrup & Jam	B	B		C		A	A				A			D	B			A
Sulfate, Black Liquor	C	C	C	C	B	A	B	B		C	C	B	C	D	B			A
Sulfate, Green Liquor	B	C	C	C	B	A	B	B		C	A		C	D	B			A
Sulfate, White Liquor	B	C	C	C	B	B	D	C		C	D		C	D	B			A
Sulfur	A	D	C	C	B		A	B		D	A	B	B	B	C	C		A
Sulfur Chlorides	D	B	D	D	D		A	B		D	A	C	A	B	D		A	A
Sulfur Dioxide, dry	A	B	B	B	A	A	B	B	A	D	A	A	A	D	D	A	A	A
Sulfur Dioxide, wet	C	D			A	C	B	A	B	D	D	B		B	D		A	A
Sulfur Hexafluoride	A	B			A		A								B			A
Sulfur, Molten	A	D	C	B	B		A	D	B	D	D	B	B	B	C			A
Sulfur Trioxide		B	B	B	B	B	B		B	D	D		B	D	D		D	A
Sulfur Trioxide, dry	A	B	B	B	B	B	B	B	B	D	A	B	A	D	D	A	D	A
Sulfuric Acid 0 to 77%	C	C	D	D	C		B	B		B	D		A	B	B	D	A	A
Sulfuric Acid 100%	D	C	C	B	A	B	A	D		D	D	C	B	B	D	D	D	A

Ratings: A-Excellent B-Good C-Poor D-Do not use Blank-No information * Do not use reinforced or poly-fill, pure PTFE only

VALVE CHEMICAL COMPATIBILITY

	Aluminum	Brass	Carbon Steel	Ductile Iron / Cast Iron	316 Stainless Steel	17-4PH Stainless Steel	Alloy 20	Monel	Hastelloy C	Buna N (Nitrile)	Delrin	EPDM/EPR	Viton	Hypalon	Neoprene	Nylon	Grafoil	Teflon
Sulfurous Acid	C	D	D	D	B		B	D	B	C	C	C	A	B	C	D	A	A
Tall Oil	C	B	B	B	B		B	B	A	B	A	D	A	D	B	D		A
Tannic Acid (Tannin)	C	B	C	C	B	B	B	B	B	B	A	B	A	B	B	A		A
Tanning Liquors	A				B		B			B	D				D			A
Tar & Tar Oils	A	A	A	A	A	A	A	A		C	A	D	A	D	D			A
Tartaric Acid	B	B	D	D	A	A	A	B	B	C	A	B	A	B	B			A
Tetraethyl Lead	B	B	C	C	B		B	A			A							A
Toluol (Toluene)	A	A	A	A	A		A	A	A	D	C	D	B	D	D	A		A
Tomato Juice	A	C	C	C	A		A	B		A	A		A	D	A			A
Transformer Oil	A	B	A	B	A		A	A		A	A		A		B			A
Tributyl Phosphate	A	A	A	A	A		A	A		D	A	B	D	D	D	A		A
Trichlorethylene	A	B	B	C	B	A	B	B	A	D	A	D	B	D	D	A	A	A
Trichloroacetic Acid	D	B		D	D		B	B	A	C	D		D		D			A
Triethanolamine	B				B		B	B	A	C	A	B		B	B			A
Triethylamine		B			B		B		A	B	C				B			A
Trisodium Phosphate	D				B		B		A	A	A	B	B	B	A			A
Tung Oil	B	B	B	B	A		A	C	A	A	A	D	A	D	B			A
Turpentine	B	B	B	B	B	A	B	B	A	B	A	D	A	C	D	A		A
Urea	B	B	C	C	B		B	B	A	C	A	B	D	D	B			A
Uric Acid	D				A		A		A		B							A
Varnish	A	A	C	C	A		A	A	A	C	A	D	B	D	B			A
Vegetable Oils	A	B	B	B	A		A	B	A	A	A	D	A	B	B			A
Vinegar	C	B	D	D	A		A	B	A	D	B	A	D	C	D			A
Vinyl Acetate	B	B		B	B		B	B	A		D	A		B	B	A	A	A
Water, Distilled	A	A	D	D	A	A	A	A	A	C	A	B	A	B	B			A
Water, Fresh	A	A	C	C	A	A	A	A	A	C	A	B	A	A	B	C		A
Water, Acid Mine	D	D	D	D	B	B		D	C	B	A	A	D	C	A		A	
Waxes	A	A	A	A	A		A	A	A	A	A	C	A	B	B			A
Whiskey & Wines	D	B	D	D	A		A	A	A	B	A	A	A	C	B	A		A
Xylene (Xylol), Dry	A	A	B	B	A		A	A	A	D	A	D	B	D	D	A	A	A
Zinc Bromide	D	B		D	B		B	B	A	B	A	B	B	B	B			A
Zinc Hydrosulfite	D	C	A	B	A		A	B	A	A	A	A	A		A			A
Zinc Sulfate	D	B	D	D	B		A	B	A	A	A	A	A	B	A		A	A

Ratings: A-Excellent B-Good C-Poor D-Do not use Blank-No information

NOTE: - that 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 all have significant effect on material selection hence this is only a rough guide. Furthermore, recommendations vary between manufacturers.

Results are based on an exposure period of 48-hrs and any exposure beyond this period may produce alternate outcomes.