Chemical Resistance Chart

LIABILITY DISCLAIMER

Important Note : The following complimentary list can be used only as a limited guide to aid in your selection of pump and seal types. We make no guarantee as to its correctness, accuracy or completeness. Also, field results can often differ from laboratory results due to a variety of contaminants and variations. The best compatibility information is obtained by subjecting test samples to actual operating conditions. The choice of product or products and their intended area of method of use is the sole responsibility of the user.

SYMBOL DEFINITIONS:

A = GOOD CHEMICAL RESISTANCE

B = QUESTIONABLE (Check with manufacturer)

C = POOR CHEMICAL RESISTANCE

D = RESULTS UNDETERMINED

N/R = NOT RECOMMENDED

CHEMICAL	NORYL	POLYPROPYLENE	STAINLESS STEEL	BUNA-N	VITON	EDPM
ACETIC ACID 95-100%	A	A	AB	C	C	A
ACETIC ACID (glacial 70 ° F)	A	A	B	C	C	A
ACETIC ANHYDRIDE (100% boiling)	C	C	AC	C	C	A
ACETONE 100%	C	A	A	C	C	A
ALCOHOL, BUTYL	A	A	A	A	A	A
ALCOHOL, ETHYL	A	A	B	A	A	A
ALCOHOL 2-AMINOETHANOL	A	A	A	-	-	-
ALUMINUM CHLORIDE (10% ambient/boiling)	A	A	C	A	A	A
ALUMINUM FLUORIDE	A	A	C	A	A	A

CHEMICAL RESISTANCE CHART (AL-CA)

CHEMICAL	NORYL	POLYPROPYLENE	STAINLESS STEEL	BUNA-N	VITON	EDPM
ALUMINUM POTASSIUM SULFATE 10%	A	A	B	A	A	A
ALUMINUM SULFATE 100%	A	A	B	A	A	A
AMINES	C	-	A	C	C	A/C
AMMONIA AQUEOUS (wet)	A	A	A	A	A 30%	A
AMMONIUM CARBONATE	A	A	A	A	A	A
AMMONIUM CHLORIDE 10% saturated	A	A	C	A	A	A
AMMONIUM FLUORIDE	A	A	-	A	A	A
AMMONIUM HYDROXIDE (concentrated)	A	A	A	B	A	A
AMMONIUM NITRATE (saturated)	A	A	A	A	A	A
AMMONIUM PERSULFATE 5%	A	A	A	A	A	A
AMMONIUM PHOSPHATE DIBASIC 5%	A	A	AB	A	A	A
AMMONIUM SULFATE	A	A	B	A	A	A
AMYL CHLORIDE	C	C	A	C	A	N/R
ANILINE 100%	C	B	A	N/R	N/R	A
ANTIMONY TRICHLORIDE 100%	A	A	C	A	A	A
AQUA REGIA	C	A	C	N/R	A	N/R
ARSENIC ACID	A	A	A	A	A	A
BARIUM CARBONATE	A	A	B	A	A	A
BARIUM CHLORIDE (saturated)	A	A	B	A	A	A
BARIUM CHLORIDE 30%	A	A	B	A	A	A
BARIUM CHLORIDE 5%	A	A	A	A	A	A
BARIUM HYDROXIDE	A	A	A	A	A	A
BARIUM SULFATE	A	A	A	A	A	A
BARIUM SULFIDE	A	A	A	A	A	A
BEER 160°	A	A	A	A	A	A
BENZALDEHYDE 100%	C	AC	A	C	C	A
BENZENE 100% (70°F)	C	B	A	C	A	N/R
BENZENE SULFONIC ACID 100%	A	A	A	N/R	A	N/R
BENZOIC ACID 10%	A	AC	A	C	A	N/R
BENZYL ALCOHOL	C	A	A	C	A	AC
BORAX (hot)	A	A	A	A	A	A
BORIC ACID 5% (hot)	A	A	A	A	A	A
BORIC ACID 10% (70°F)	A	A	B	A	A	A
BROMINE MOIST GAS	A	C	C	C	A	N/R
BUTYRIC ACID (hot/concentrated)	A	B	B	C	B	B
BUTYRIC ACID (dilute 5%)	A	A	A	C	B	A
BUTYL ACETATE 100%	C	B	A	C	C	N/R
CALCIUM BISULFITE (hot)	A	A	B	A	A	N/R
CALCIUM CARBONATE	A	A	A	A	A	A
CALCIUM CHLORIDE (saturated)	A	A	C	A	A	A
CALCIUM HYDROXIDE 10% boiling	A	A	A	A	A	A
CALCIUM HYPOCHLORITE 100%	A	A	C	C	A	A
CALCIUM NITRATE	A	A	B	A	A	A
CALCIUM SULFATE	A	A	A	A	A	A

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CHEMICAL RESISTANCE CHART (CA-FE)

CHEMICAL	NORYL	POLYPROPYLENE	STAINLESS STEEL	BUNA-N	VITON	EDPM
CARBON BISULFIDE	A	C	A	B	A	N/R
CARBON TETRACHLORIDE (wet)	C	B	B	C	A	N/R
CARBONIC ACID (saturated)	A	A	A	A	A	A
CAUSTIC POTASH	A	A	B	A	C	A
CAUSTIC SODA	A	A	B	N/R	B	A
CHLORIC ACID	C	-	C	-	-	-
CHLORINATED WATER	C	AC	B	C	N/R	N/R
CHLORINE MOIST	B	C	C	C	B	B
CHLOROBENZENE (dry)	C	B	A	C	A	N/R
CHLOROFORM	C	B	B	C	A	N/R
CHLOROSULFONIC ACID	C	C	C	C	C	C
CHROMIC ACID (dilute)	A	A	B	N/R	A	-
CHROMIC ACID (conc.)	C	B	C	N/R	A	N/R
CITRIC ACID (hot)	A	A	B	A	A	A
CITRIC ACID (dilute 15%)	A	A	B	A	A	-
COPPER CYANIDE (saturated)	A	A	A	A	A	A
COPPER FLUORIDE	A	A	-	-	A	A
COPPER NITRATE	A	A	A	A	A	A
COPPER SULFATE	A	A	A	A	A	A
COTTONSEED OIL	A	A	A	A	A	AC
CRUDE OIL	C	A	A	A	A	N/R
CUPRIC CHLORIDE 5%	A	A	C	A	A	A
CYCLOHEXANE	C	B	A	A	A	N/R
CYCLOHEXANOL	A	B	A	A	A	C
DETERGENTS (general)	A	A	A	A	A	A
DIBUTYLPHTHALATE	A	A	A	N/R	BC	A
DICHLORODIFLUORO METHANE (Freon 12)	A	A	A	A	A	-
DICHLOROETHYLENE	C	A	-	N/R	A	C
DIESEL FUEL	C	A	A	A	A	N/R
DIETHANOLAMINE	A	-	A	B	N/R	A
DIETHYLENE GLYCOL	A	A	A	A	A	A
DIMETHYL FORMAMIDE	C	A	A	A	A	A
DIMETHYL SULFOXIDE	A	A	-	-	N/R	-
DIOCTYL PHTHALATE	A	C	A	C	B	A
ETHANOLAMINE	A	A	A	A	C	A
ETHYL ACETATE	C	A	A	C	C	A
ETHYL CHLORIDE (wet)	C	C	AC	A	A	A
ETHYLENE DICHLORIDE	C	BC	A	C	A	C
ETHYLENE GLYCOL	AC	A	A	A	A	A
ETHYLENE OXIDE	A	C	B	C	C	B
FATTY ACIDS	A	A	B	A	A	C
FERRIC CHLORIDE (concentrated)	A	A	C	A	A	A
FERRIC CHLORIDE 1%	A	A	BC	A	A	A
FERRIC NITRATE 5%	A	A	A	A	A	A

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CHEMICAL RESISTANCE CHART (FE-ME)

CHEMICAL	NORYL	POLYPROPYLENE	STAINLESS STEEL	BUNA-N	VITON	EDPM
FERRIC SULFATE 5%	A	A	B	A	A	A
FERROUS CHLORIDE	A	A	C	A	A	A
FERROUS SULFATE 10%	A	A	B	A	A	A
FLUOBORIC ACID	A	A	B	A	A	A
FLUOSILIC ACID	A	A	B	A	A	-
FORMALDEHYDE 37%	A	A	B	B	A	A
FORMIC ACID	A	A	AB	C	C	A
FREON (wet)	A	A	B	A	A	-
FUEL OILS	A	C	A	A	A	N/R
FURFURAL	C	C	A	C	C	-
GASOLINE, LEADED	C	B	A	A	A	N/R
GASOLINE, UNLEADED	C	B	A	A	A	N/R
GELATIN	A	A	A	A	A	A
GLUCOSE	A	A	A	A	A	A
GLYCERINE	A	A	A	A	A	A
GLYCOL	AC	A	A	A	A	A
HEPTANE	AC	C	A	A	A	N/R
HEXANE	C	B	A	A	A	N/R
HYDROBROMIC ACID 37%	A	B	C	C	A	A
HYDROCHLORIC ACID (more than 20%)	A	B	C	C	A	-
HYDROCHLORIC ACID 1-20%	A	B	C	A	A	A
HYDROCHLORIC ACID 1%	A	A	C	A	A	A
HYDROCYANIC ACID	A	A	A	A	A	A
HYDROFLUORIC ACID	B	A	B	B	A	-
HYDROFLUOROSILIC ACID	A	A	C	A	A	A
HYDROGEN PEROXIDE	A	AB	B	C	A	B
HYDROGEN SULFIDE (moist)	A	A	B	N/R	B	A
ISOPROPYL ALCOHOL	A	A	A	A	A	A
JET FUEL	C	AB	A	A	A	N/R
KEROSENE	C	AB	A	A	A	N/R
LACTIC ACID	A	A	B	A	A	A
LACQUERS & LACQUER SOLVENTS	C	B	A	C	C	N/R
LPG PROPANE	A	-	A	-	-	-
LEAD ACETATE	AC	A	A	A	A	A
LINSEED OIL	A	A	A	A	A	B/C
LYE	A	A	B	A	A	A
MAGNESIUM CARBONATE	A	A	A	A	A	A
MAGNESIUM CHLORIDE	A	A	B	A	A	A
MAGNESIUM HYDROXIDE	A	A	A	A	A	A
MAGNESIUM NITRATE	A	A	A	A	A	A
MAGNESIUM SULFATE	A	A	A	A	A	A
MALEIC ACID	A	A	B	N/R	A	A
MERCURIC CHLORIDE	A	A	C	A	A	A

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CHEMICAL	NORYL	POLYPROPYLENE	STAINLESS STEEL	BUNA-N	VITON	EDPM
MERCURIC CYANIDE	A	A	A	A	A	A
MERCUROUS NITRATE	A	A	A	A	A	A
MERCURY	A	A	A	A	A	A
METHYL ALCOHOL	AC	A	A	A	C	A
METHYL CHLORIDE (wet)	C	C	AB	C	A	C
METHYL ETHYL KETONE	C	B	A	C	C	A
METHYL ISOBUTYL KETONE	C	B	A	C	C	A
METHYLENE CHLORIDE	C	B	AB	C	B	C
MILK	A	A	A	A	A	A
MINERAL OIL	AC	B	A	A	A	N/R
MONOCHLORO BENZENE (dry)	C	B	A	C	A	N/R
MONOETHOLAMINE	A	A	A	-	-	-
NAPHTHA	C	B	A	A	A	N/R
NAPHTHALENE	C	A	A	C	A	N/R
NICKEL CHLORIDE	A	A	C	A	A	A
NICKEL NITRATE	A	A	A	A	A	A
NICKEL SULFATE	A	A	A	A	A	A
NITRIC ACID	A	AB	A	C	A	C
NITROBENZENE	C	AB	A	C	A	A
OILS, MINERAL	A	A	A	A	A	N/R
OILS, OLIVE	A	A	A	A	A	A
OILS, VEGETABLE	AC	A	A	A	A	AC
OLEIC ACID	AC	AB	B	A	A	C
OXALIC ACID	A	A	B	A	A	A
PHOSPHORIC ACID	A	A	B	C	A	A
PHOTOGRAPHIC SOLUTION/DEVELOPER	A	A	B	A	A	A
PLATING SOLUTIONS/BRASS	A	A	-	C	A	A
PLATING SOLUTIONS/CADMIUM	A	A	-	A	A	A
PLATING SOLUTIONS/CHROME	B	A	B	C	A	A
PLATING SOLUTIONS/COPPER	A	A	-	C	A	A
PLATING SOLUTIONS/GOLD	A	A	-	A	A	A
PLATING SOLUTIONS/LEAD	A	A	A	A	A	A
PLATING SOLUTIONS/NICKEL	A	A	B	C	A	A
PLATING SOLUTIONS/SILVER	A	A	A	A	A	A
PLATING SOLUTIONS/TIN	A	A	-	A	A	A
PLATING SOLUTIONS/ZINC	A	A	-	A	A	A
POTASSIUM ACETATE	A	-	-	B	C	A
POTASSIUM ALUMINUM SULFATE	A	A	B	A	A	A
POTASSIUM BICARBONATE	A	A	A	A	A	A
POTASSIUM BICHROMATE	A	A	A	A	A	B
POTASSIUM CARBONATE	A	A	A	A	A	A
POTASSIUM CHLORATE	A	A	A	A	A	A
POTASSIUM CHLORIDE	A	A	B	A	A	A
POTASSIUM CHROMATE	A	A	A	A	A	A

CHEMICAL	NORYL	POLYPROPYLENE	STAINLESS STEEL	BUNA-N	VITON	EDPM
POTASSIUM CYANIDE	A	A	A	A	A	A
POTASSIUM DICHROMATE	A	A	A	A	A	A
POTASSIUM FERRICYANIDE	A	A	A	B	A	A
POTASSIUM HYDROXIDE	A	A	B	B	C	A
POTASSIUM NITRATE	A	A	B	A	A	A
POTASSIUM PERMANGANATE	A	AB	A	A	A	A
POTASSIUM SULFATE	A	A	A	A	A	A
POTASSIUM SULFIDE	A	A	A	A	A	A
POTASSIUM SULFITE	A	A	A	-	-	-
PROPYL ACETATE	A	-	A	C	C	A
PROPYL ALCOHOL	A	A	A	A	A	A
PYRIDINE	AC	A	A	C	C	A
SALT BRINE	A	A	B	A	A	A
SEA WATER	A	A	C	A	A	A
SILICONE OIL	A	A	A	A	A	A
SOAP SOLUTIONS	A	A	A	A	A	A
SODIUM ACETATE	A	A	A	B	C	A
SODIUM BICARBONATE	A	A	A	A	A	A
SODIUM BISULFATE	A	A	C	A	A	A
SODIUM BISULFITE	A	A	AB	A	A	A
SODIUM BORATE (Borax)	A	A	B	A	A	A
SODIUM BROMIDE	A	A	C	A	A	A
SODIUM CARBONATE	A	A	B	A	A	A
SODIUM CHLORATE	A	A	A	B	A	A
SODIUM CHLORIDE	A	A	B	A	A	A
SODIUM CHROMATE	A	-	A	A	A	-
SODIUM CYANIDE	A	A	B	A	A	A
SODIUM DICHROMATE	A	A	B	A	A	A
SODIUM FERRICYANIDE	A	A	B	A	A	A
SODIUM FLUORIDE	A	A	C	A	A	A
SODIUM HYDROXIDE	A	A	B	N/R	B	A
SODIUM HYPOCHLORITE	A	A	B	C	A	A
SODIUM NITRATE	A	A	A	A	A	A
SODIUM NITRITE	A	A	B	A	A	A
SODIUM PHOSPHATES	A	A	A	A	A	A
SODIUM SILICATE	A	A	A	A	A	A
SODIUM SULFATE	A	A	A	A	A	A
SODIUM SULFIDE	A	A	B	A	A	A
SODIUM SULFITE	A	A	A	A	A	A
SODIUM THIOSULFATE	A	A	A	A	A	-
STANNIC CHLORIDE	A	A	C	A	A	A
STARCH	A	A	A	A	A	A
STEAM	A	A	A	N/R	B	A
STODDARD SOLVENT	C	B	A	A	A	N/R

CHEMICAL RESISTANCE CHART (SU-ZI)

CHEMICAL	NORYL	POLYPROPYLENE	STAINLESS STEEL	BUNA-N	VITON	EDPM
SUGAR JUICE	A	A	A	A	A	A
SULFOLENE	A	-	-	-	-	-
SULFUR DIOXIDE (wet)	A	AB	C	C	A	A
SULFURIC ACID	B	AB	C	C	A	B
TANNIC ACID	A	A	B	A	A	A
TANNING LIQUOR	A	A	A	C	A	A
TARTARIC ACID	A	A	B	A	A	B
TETRAHYDROFURAN	C	B	A	C	C	N/R
TOLUENE (Toluol)	C	BC	A	C	A	N/R
TRICHLORACETIC ACID	A	A	C	C	C	A
TRICHLORETHYLENE	C	C	A	C	A	N/R
TRICHLOROTRI-FLUOROETHANE (Freon 113)	C	-	A	A	A	N/R
TRITHANOLAMINE	A	C	A	C	C	-
TRISODIUM PHOSPHATE	A	A	A	A	A	A
TURPENTINE	A	B	A	C	A	N/R
UREA	A	A	A	A	A	A
URINE	A	A	A	A	A	A
VINEGAR	A	A	A	C	A	A
WATER, DISTILLED	A	A	A	A	A	A
WATER, DE-IONIZED	A	A	A	A	A	A
WATER, DE-MINERALIZED	A	A	A	A	A	-
WHISKEY	A	A	A	A	A	A
WHITE LIQUOR (Pulp Mill)	A	A	A	A	A	A
WHITE SPIRIT	C	-	-	A	A	N/R
WINE	A	A	A	A	A	A
XYLENE (Xylol, Xylole)	C	C	A	C	A	N/R
ZINC CHLORIDE	A	A	B	A	A	A
ZINC SULFATE	A	A	A	A	A	A

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