

CHEMICAL RESISTANCE DATA CHART FOR HAND DISPENSING PUMPS

PUMP MODEL	MATERIALS OF CONSTRUCTION	CHOOSE FROM OPTIONS:
HP - Polyester *	Polyester housing and coverplate, piston, valves and bung adapter.	1, 2, 3, 4, A, M
HR - Ryton *	Ryton housing and coverplate, ETFE piston, valves and bung adapter.	5, 6, 7, 8, B, C, E, N

* All models have 316 stainless steel piston rod, fasteners and suction screen in contact with liquid.

A - Recommended
C - Not recommended
X - Insufficient data

	ECTFE (Halar) ETFE (Tefzel)	Ryton	Polyester	EPDM	Viton	Cork-Nitrile Buna-N	Polyethylene	PVC
Acetaldehyde	A	A	A	A	C	X	A	C
Acetic acid 20%	A	A	A*	A	C	A	A	A
Acetic acid 50%	A	A	C	A	C	A	A	A
Acetic acid, glacial	A	A	C	A	C	C	A	C
Acetic anhydride	A*	A	C	A	C	X	A	C
Aluminum sulfate	A	A	A*	A	A	A	A	A
Ammonia, 30% (cold)	A	A	C	A	C	A	A	A
Ammonium chloride	A	A	A*	A	A	A	A	A
Ammonium nitrate	A	A	A*	A	C	A	A	A
Ammonium persulfate	A	X	A*	A	A	A	A	A
Ammonium phosphate	A	A	A*	A	A	A	A	A
Ammonium sulfate	A	A	A*	A	C	A	A	A
Amyl acetate	A	A	A*	A	C	X	A	C
Amyl alcohol	A	A	A*	A	A	A	A	A
Amyl chloride	A	X	A*	C	A	X	C	C
Aniline	A*	A	C	A	C	X	A	C
Arsenic acid	A	A	C	A	A	A	A	A
Atrazine	A	X	A	A	A	X	X	X
Banvel	A	X	A	C	A	X	X	X
Barium chloride *	A	A	A*	A	A	A	A	A
Barium sulfate *	A	A	A*	A	A	A	A	A
Beer	A	A	A*	A	A	X	A	A
Benzaldehyde	A*	C	A*	A	C	X	A	C
Benzene	A	A*	A*	C	A	A	A	C
Benzoic acid	A	A	A*	C	A	X	A	A
Bicep	A	X	A	A	A	X	X	X
Bladex	A	X	A	A	A	X	X	X
Borax (Sodium Borate)	A	A	A*	A	A	A	A	A
Boric acid	A	A	A	A	A	A	A	A
Bronco	A	X	A	A	A	X	X	X
Bullet	A	X	A	A	A	X	X	X
Butyl acetate	A	A	A*	A	C	C	A	C
Butyric acid	A	A*	C	A	A	X	A	A
Calcium bisulfite	A	A	C	C	A	A	A	A
Calcium chloride	A	A	A*	A	A	A	A	A
Calcium hypochlorite, 20% *	A	A	A*	A	A	A	A	A
Calcium sulfate	A	A	A*	A	A	A	A	A
Carbon tetrachloride	A	A*	A*	C	A	A	A	A*
Carbonic acid	A	A	C	A	A	A	A	A
Chlorobenzene	A	A	C	C	A	X	A	C
Chloroform (wet)	A	A	A*	C	A	X	A	C
Chromic acid, 10%	A	A	C	C	A*	C	A	A
Chromic acid, 50%	A	A*	C	C	A*	C	A	A
Citric acid	A	A	A*	A	A	A	A	A
Copper Cyanide	A	A	C	A	A	A	A	A
Copper nitrate	A	A	A*	X	A	A	A	A
Copper Sulfate	A	A	A	A	A	A	A	A
Cresylic acid, 50%	A	X	A*	C	A	A	A	A
Dimethoate	A	X	A	C	A	X	X	X
Dual	A	X	A	A	A	X	X	X
Eptam	A	X	A	C	A	X	X	X
Ethanol (Ethyl Alcohol)	A	A	A	A	A	A	A	A

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Ethyl acetate	A	A	A*	A	C	C	A	C
Ethyl chloride	A	A	C	A	A	A	A	C
Ethylene Glycol	A	A	A*	A	A	A	A	A*
Extrazine	A	X	A	A	A	X	X	X
Fallowmaster	A	X	A	A	A	X	X	X
Fatty acids	A	X	A*	C	A	A	A	A
Ferric nitrate *	A	A	A*	A	A	A	A	A
Ferric sulfate	A	C	C	A	A	A	A	A
Ferrous sulfate	A	A	A*	A	A	X	A	A
Flouroboric acid, 30-40% *	A	A	A*	A	A	A	A	A
Floussilic acid, 20% *	A	A	C	A	A	A	A*	A
Formaldehyde, 40%	A	A	A*	A	A	A	A	A
Fuel oils	A	A	A	C	A	A	A	A
Furfural	A	A	A*	A	C	X	A	C
Glycerine (Glycerol)	A	A	A*	A	A	A	A	A
Heptane	A	A	A*	C	A	A	A	A
Hexane	A	A	A*	C	A	A	C	A
Honcho	A	X	A	A	A	X	X	X
Hydrocyanic acid *	A	X	A*	A	A	A	A	A
Hydrofluosilicic acid, 20% *	A	A	C	A	A	A	A	A
Hydrogen peroxide, 30% *	A	A*	C	A*	A	A	A	A
Hydrogen peroxide, 50% *	A	C	C	A*	A	A	A	A*
Hydrogen peroxide, 90% *	A	X	C	A*	A	A	A	C
Hydrogen sulfide (Aq. Sol.)	A	A	A*	A	C	A	A	A*
Kerosene	A	A	A*	C	A	A	A	A
Lactic acid	A	A	A*	A	A	A	A	A
Lannate	A	X	A	A	A	X	X	X
Lasso	A	X	A	A	A	X	X	X
Lead acetate	A	A	A*	A	C	A	A	A
Lorsban	A	X	A	C	A	X	X	X
Lubricating oil	A	A	A	C	A	A	A	A*
Magnesium chloride *	A	A	A*	A	A	A	A	A
Magnesium nitrate	A	A	A*	A	A	A	A	A
Magnesium sulfate	A	A	A*	A	A	A	A	A
Maleic acid	A	X	A*	C	A	X	A	A
Methyl alcohol (Methanol)	A*	A	A*	A	C	A	A	A*
Methyl chloride	A	A*	C	C	A	X	A	C
Methyl ethyl ketone	A	A	A*	A	C	X	C	C
Methyl isobutyl ketone	A	A	A*	C	C	X	C	C
Modown	A	X	A	A	A	X	X	X
N-serve 24	A	X	A	A	A	X	X	X
Naphtha	A	A	A*	C	A	A	A	A
Naphthalene	A	A	A*	C	A	X	A	C
Nickel chloride *	A	A	C	A	A	A	A	A
Nickel sulfate	A	A	A*	A	A	A	A	A
Nitric acid, 10%	A	A	A	A	A	C	A	A
Nitric acid, 20%	A	A*	C	A	A	C	A	A
Oils and fats	A	A	A*	C	A	A	A	A
Oleic acid	A	A	A*	C	A	A	C	A
Oleum	A	A*	C	C	A	X	A	C
Oxalic acid *	A	A	C	A	A	A*	A	A
Pathfinder	A	X	A	C	A	X	X	X
Pathway	A	X	A	A	A	X	X	X
Phenol	A	A	C	C	A	X	A	A*
Phosphoric acid, 0-80%	A	A	A	A	A	A*	A	A

	ECTFE (Halar) ETFE (Tefzel)	Ryton	Polyester	EPDM	Viton	Cork-Nitrile Buna-N	Polyethylene
Phosphoric acid, 80-100%	A	A	A	A	A	X	A
Potassium bicarbonate	A	X	A*	X	A	A	A
Potassium bromide	A	A	A*	X	A	A	A
Potassium carbonate	A	A	A*	A	A	A	A
Potassium chlorate	A	A	A*	A	A	A	A
Potassium chloride	A	A	A*	A	A	A	A
Potassium cyanide	A	A	A*	A	A	A	A
Potassium dichromate	A	A	C	A	A	A	A
Potassium hydroxide	A	A	C	A	C	A	A
Potassium nitrate	A	A	A*	A	A	A	A
Potassium permanganate	A	A	C	X	A	A	A
Potassium sulfate	A	A	A*	A	A	A	A
Propyl alcohol	A	A	A*	A	A	A	A*
Ranger	A	X	A	A	A	X	X
Roundup	A	X	A	A	A	X	X
Sevin 4 oil	A	X	A	A	A	X	X
Soaps (neutral)	A	A	A	A	A	A	A
Sodium acetate	A	A	A*	A	C	X	A
Sodium Bicarbonate	A	A	A*	A	A	A	A
Sodium bisulfite *	A	X	A*	A	A	A	A
Sodium carbonate, 10%	A	A	A*	A	A	A	A
Sodium chlorate	A	A	A*	A	A	A	A
Sodium chloride	A	A	A	A	A	A	A
Sodium cyanide	A	A	A*	A	A	A	A
Sodium hydroxide, 20%	A	A	C	A	C	A*	A
Sodium hydroxide, 50%	A	A	C	A	C	A*	A
Sodium nitrate *	A	A	A*	A	A*	A	A
Sodium silicate	A	A	A*	A	A	A	A
Sodium sulfate	A	A	A*	A	A	A	A
Sodium sulfide	A	A	A*	A	A	X	A
Stearic acid	A	X	A*	A	A	A	A
Stoddards solvent	A	A	A*	C	A	A	C
Sulfuric acid, 0-30%	A	A	A*	A	A	A	A
Sutan	A	X	A	C	A	X	X
Tannic acid	A	A	C	A	A	A	A
Tanning liquors	A	X	X	A	A	A	A
Tartaric acid	A	A	A*	A	A	X	A
Tetrahydrofuran	C	A	A*	A	C	X	C
Toluene (Toluol)	A	A	C	C	A	A	C
Treflan	A	X	A	C	A	X	X
Trichloroethylene	A	A*	C	C	A	C	A
Tricresylphosphate	C	X	C	A	A	X	C
Turpentine	A	A	A*	C	A	A	A
Urea	A	A	C	A	A	X	A
Vinegar	A	A	A*	A	C	A	A
Water	A	A	A	A	A	A	A
Xylene (Xylo)	A	A	C	C	A	A	C
Zinc Sulfate	A	A	A*	A	A	A	A

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