

Chemical resistance of Socorex® Ecostep™ syringe

Ecostep™ are syringe fitting the repeater pipette Stepper™ 411 and 416. Manufactured and tested under stringent conditions, they meet high quality standards for safe distribution and reproducible results.

Materials

Ecostep™ syringes are in direct contact with the liquid. Special attention was paid to provide excellent chemical compatibility.

Parts	Ecostep™
Syringe plunger	PE - Polyethylene HD
Syringe cylinder	PP - Polypropylene Copolymer with slip agent

Chemicals from A to Z

The following list includes most frequently used chemicals. It provides useful information for the safe and adequate use of Ecostep™ syringe. Read the safety precautions and recommendations in operating instructions. Compatibility for special applications such as trace material analysis, etc. should be checked by the user.

Code explanations

- ++ = Good resistance
- + = Acceptable

Conditions:

- Single usage
- Ambient temperature = 20 – 25° Celsius
- Chemical resistance/performance may vary depending on reagent concentration
- Compatibility only valid for the Ecostep™ syringe

T-CR316 E-C821

Chemicals A - Z	Ecostep™
A	
Acetaldehyde (Ethanal)	+
Acetic acid 96%	++
Acetic acid 100% (Glacial)	++
Acetic anhydride	++
Acetone (Propanone)	+
Acetonitrile (MECN)	++
Acetophenone	++
Acetyl Chloride	++
Acetylacetone	+
Acrylic acid	++
Acrylonitrile	++
Adipic acid	++
Allyl alcohol	++
Aluminum chloride	++
Amino acids	++
Ammonia <20%	++
Ammonia 20-30%	++
Ammonium chloride	++
Ammonium fluoride	++
Ammonium hydroxide	+
Ammonium molybdate	+
Ammonium sulfate	++
Amyl alcohol (Pentanol)	++
Amyl chloride (Chloropentane)	
Aniline	++
Antimony trichloride	+
Ascorbic acid	++
n-Amyl acetate	+
B	
Barium chloride	++
Benzaldehyde	++
Benzene	
Benzine	+
Benzoyl chloride	+
Benzyl alcohol	++
Benzyl chloride	+
Benzylamine	+
Bis(2-ethylhexyl) phthalate	++
Boric acid 10%	++
Bromine	+
Bromobenzene	
Bromonaphtalene	+
Butanediol	++
Butanol	++
Butanone (MEK)	+
Butyl acetate	+
Butyl acrylate	+
Butyl methyl ether	+

Chemicals A - Z	Ecostep™
B	
Butylamine	
Butyric acid	++
C	
Calcium carbonate	++
Calcium chloride	++
Calcium hydroxide	++
Calcium hypochlorite	++
Carbon disulfide	+
Carbon tetrachloride Thertracholomethane	
Chlorine dioxide	+
Chloronaphthalene	
Chloroacetaldehyde 45%	+
Chloroacetic acid	+
Chloroacetone	
Chlorobenzene	
Chlorobutane	
Chloroethanol	++
Chloroform	
Chloronitric acid 100%	
Chlorosulfuric acid	+
Chlorosulfuric acid 100%	
Chromic acid 100%	+
Chromosulfuric acid 100%	
Citric acid	++
Copper fluoride	++
Copper sulfate	++
Cresol	++
Cumene (Isopropylbenzene)	+
Cyanoacrylate	
Cyclohexane	
Cyclohexanone	+
Cyclopentane	
D	
D	
1,2-Diethylbenzene	
1,4-Dioxane (Diethylene dioxide)	
1-Decanol	++
Decane	+
Di-(2-ethylhexyl) peroxydicarbonate	
Dibenzyl ether	+
Dichloroacetic acid	+
Dichlorobenzene	+
Dichloroethane (DCE)	+
Dichloromethane (DCM)	+
Dichloroethylene	+
Diesel oil (Heating oil)	+
Diethanolamine	++
Diethylamine	+

Chemicals A - Z	Ecostep™
D	
Diethylene glycol	++
Diethyl ether	+
Dimethyl sulfoxide (DMSO)	
Dimethylaniline	++
Dimethylformamide (DMF)	++
Dimethylglycol / Dimethoxyethane (DME)	+
Dioxide chlorine	+
Diphenyl ether	+
E	
Essentials oils	+
Ethanol	++
Ethanolamine	++
Ether	
Ethyl acetate	+
Ethylbenzene	
Ethylene chloride	+
Ethylenediamine	++
Ethylene glycol	++
F	
Fluoroacetic acid	+
Formaldehyde (Formalin)	++
Formamide	++
Formic acid	++
G	
Gamma-butyrolactone	
Gasoline	
Glycerin <40%	++
Glycolic acid <50%	++
H	
Heating oil (Diesel oil)	+
Heptane	
Hexane	
Hexanoic acid	+
Hexanol	++
Hydriodic acid	
Hydrobromic acid	++
Hydrochloric acid <20% (HCL) 10 to 100mL	
Hydrochloric acid <20% (HCL) 1 to 5mL	++
Hydrochloric acid 20 to 37% (HCL) 10 to 100mL	
Hydrochloric acid 20 to 37% (HCL) 1 to 5mL	++
Hydrofluoric acid (HF)	++
Hydrogen peroxide	+
I	
Iodine	++

Chemicals A - Z	Ecostep™
I	
Iodine bromide	
Iodine chloride	
Isoamyl alcohol	+
Isobutanol	++
Isooctane	
Isopropanol	++
Isopropyl ether	+
Isopropylamine	++
K	
Kerosene	+
L	
Lactic acid	++
M	
2-Methoxyethanol	++
Methanol	++
Methoxybenzene (Anisol)	+
Methyl benzoate	++
Methyl chloride (Chloromethane)	
Methyl ethyl ketone peroxide (MEKP)	
Methyl formate	+
Methyl iodine (Iodomethane)	+
Methyl methacrylate (MMA)	
Methyl n-butyl keton (MBK)	+
Methyl propyl ketone (2-Pentanone)	+
Methyl tert-butyl ether (MTBE)	+
Methylene chloride (Dichloromethane) (DCM)	
Methylpentanone	+
Mineral oil (engine oil)	+
N	
N-Butylamine	
Nitric acid <30% - 10 to 100mL	
Nitric acid <30% - 1 to 5mL	+
Nitric acid 30-70% - 10 to 100mL	
Nitric acid 30-70% - 1 to 5mL	
Nitric acid >70% - 10 to 100mL	
Nitric acid >70% - 1 to 5mL	
Nitro-hydrochloric acid (Aqua regia)	+
Nitrobenzene	++
Nitromethane	+
N-methyl-2-pyrrolidone (NMP)	++
O	
Octane	+
Octanol	
Oil (vegetable, animal)	+
Oil of turpentine	

Chemicals A - Z	Ecostep™
O	
Oleic acid	
Oxalic acid	++
P	
Pentane	
Peracetic acid	
Perchloric acid 100%	++
Perchloric acid diluted	++
Perchloroethylene	
Petroleum	
Petroleum ether / spirit	
Phenol	+
Phenylethanol (2-phenylethanol)	+
Phenylhydrazine	+
Phosphoric acid <100%	++
Phosphoric acid <85%	++
Piperidine	++
Potassium chloride	++
Potassium dichromate	++
Potassium fluoride	
Potassium hydroxide	++
Potassium iodide	++
Potassium permanganate	++
Potassium peroxydisulfate (Potassium persulfate)	++
Potassium sulfate	++
Propionic acid (Propanoic acid)	++
Propylene glycol (Propane-1,2-diol)	++
Propylene oxide	++
Picric acid (Trinitrophenol)	++
Pyridine	+
Pyruvic acid	++
R	
Resorcin	++
S	
Salicylaldehyde	++
Scintillation fluid	++
Silver acetate	++
Silver nitrate	++
Sodium acetate	++
Sodium chloride (Kitchen salt)	++
Sodium dichromate	++
Sodium fluoride	++
Sodium hydroxide 30%	++
Sodium hypochlorite	++
Sodium thiosulfate	++
Sulfonitric acid 100%	
Sulfochromic acid 100%	
Sulfur dioxide	++

Chemicals A - Z	Ecostep™
S	
Sulfuric acid <60% - 10 to 100mL	
Sulfuric acid <60% - 1 to 5mL	+
Sulfuric acid >60% - 10 to 100mL	
Sulfuric acid >60% - 1 to 5mL	+
T	
Trichlorotrifluoroethane	++
Terebentine oil	++
Tartaric acid	++
Tetrachloroethane	
Tetrachloroethylene / methylene	
Tetrahydrofuran (THF)	
Tetramethylammonium hydroxide	
Tetramin	+
TKN Digest	+
Toluene	
Trichlorethylene	
Trichloroacetic acid	++
Trichlorobenzene	
Trichloroethane / Methane	
Trichloromethane (Chloroform)	+
Triethanolamine	++
Triethylene glycol	++
Trifluoroacetic anhydride (TFAA)	+
Trifluoroacetic acid (TFA)	+
Trifluoromethane (Fluoroform)	
U	
Urea	++
X	
Xylene	
Z	
Zinc chloride 10%	++
Zinc sulfate 10%	++

The above guidelines have been carefully reviewed prior to publication. Should you require information on chemicals not listed or contribute to some comments, please feel free to contact us.