Technical support information

Chemical resistance of Socorex® microdispensers

Acura™ manual 865

Microdispensers are intended for rapid dispensing of various chemicals. They meet requirements assuring safety of the laboratory staff and their work. Microdispensers shall not release any substances which may interfere with trace analysis, have cytotoxic properties, distort optical tests or influence chromatographic methods and residue analysis.

Materials

Special attention is given to component materials (see charts below). All parts of the Acura™ 865 microdispenser in contact with the liquid are made of robust materials providing for long instrument life.

Parts	Acura™ 865	
Valve body	PVDF	
Valve seat	Saphire glass	
Valve ball	Synthetic ruby	
Valve springs	Platinum Iridium	
Valve cap	PVDF	
Barrel assembly	PVDF	
Plunger	Stainless steel DIN 316L (50 µL)	PVDF (200µL - 1000µL)
Plunger sleeve	PTFE	
Plunger O-ring	FPM	

Chemicals from A to Z

The following list includes most frequently used chemicals. It provides useful information for the safe and adequate use of Acura™ manual 865 microdispensers. However, safety precautions and recommendations in operating instructions must be followed carefully.

Code explanations

++ = Good resistance

+ = Acceptable

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Chemicals A - Z	Acura™ 865
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	
Butylamine	

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Chemicals A - Z	Acura™ 865
B	
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	
1,2-Diethylbenzene	++
1,4-Dioxane (Diethylene dioxide)	
1-Decanol	+
Decane	++
Di-(2-ethylhexyl) peroxydicarbonate	+
Dibenzyl ether	
Dichloroacetic acid	
Dichlorobenzene	+
Dichloroethane (DCE)	+
Dichhloromethane (DCM)	+
Dichloroethylene	+
Diesel oil (Heating oil)	+
Diethanolamine	+
Diethylamine	
Diethylene glycol	+
Diethyl ether	

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Chemicals A - Z	Acura™ 865
D	
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	+
Iodine bromide	
Iodine chloride	
Isoamyl alcohol	++

Chemicals A - Z	Acura™ 865
I	
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	+
Oleic acid	+
Oxalic acid	+

Chemicals A - Z	Acura™ 865
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	+
Scintilation 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	+
Sulfuric acid <60% - 10 to 100mL	
Sulfuric acid <60% - 1 to 5mL	+
Sulfuric acid >60% - 10 to 100mL	

Chemicals A - Z	Acura™ 865
S	
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.

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