



Eppendorf Pipet Helper

Chemical Resistance

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1 General conditions of the resistance tests

The resistance data listed in the following tables is derived from the storage of the test material in the corresponding liquid for 24 hours. These only apply to handling and cleaning at ambient temperature.

The information about the chemical resistance only refers to the used plastics of the instrument. These plastics have been improved to enhance the standard properties of the corresponding plastic. Therefore, the data in the following tables does not necessarily apply to plastics with the same abbreviations that are used in other products.

As only the consumable comes into contact with the liquid if handled properly, aggressive liquids can be used carefully for a limited time. This limited time is reduced for aggressive liquids with a high vapor pressure. For liquids with high vapor pressure, gases enter the instrument during dispensing. The gases or aerosols may condense at various locations. Using aggressive liquids may reduce the service life of the instrument.

2 Materials used

The following materials used in the device are important for the user:

Assembly	Material
Housing, aspirating cone	Polypropylene (PP)
Aspirator bulb, blow-out bulb, filter adapter, pipette adapter, tubing, and valves	Silicone
Filter membrane, valve ball	Polytetrafluoroethylene (PTFE)

3 Evaluation criteria

In this document, the following evaluation criteria for resistance are defined.

Symbol	Resistance	Explanation
■■■	Resistant	The chemical can be used.
■■	Limited resistance and/or suitable for limited use	The chemical can be used for a limited period of time. If the chemical is not removed from the surface after use (observe condensation!), subsequent damage is possible.
■	Increased risk and/or increased wear	The chemical can only be used with utmost caution. If handled improperly, the chemical must be removed immediately because subsequent damage can occur quickly. Remove and clean the pipette clamp after use.

4 Chemical resistance

4.1 Acids and bases

Designation	Concentration	PP	Silicone
Ammonia solution	25 %	–	■■■
Ammonia solution	2 %	–	■■■
Acetic acid	96 %	■■■	■■■
Acetic acid	12 %	–	■■■
Caustic soda	20 %	■■■	■■■
Caustic soda	4 %	–	■■■
Perchloric acid	10 %	–	■■■
Nitric acid	65 %	■■■	■
Nitric acid	6,3 %	–	■■■
Hydrochloric acid	32 %	■■■	■■■
Hydrochloric acid	3,6 %	–	■■■
Sulfuric acid	96 %	■■■	■
Sulfuric acid	16 %	–	■■■
Trichloroacetic acid	40 %	■■■	■■■
Trichloroacetic acid	10 %	■■■	■■■
Trifluoroacetic acid (TFA)	100 %	■■■	■
Trifluoroacetic acid (TFA)	10 %	■■■	■■

4.2 Organic solvents

Designation	Concentration	PP	Silicone
Acetone	–	–	■■■
Acetonitrile	–	–	■■■
Dichloromethane (methylene chloride)	–	■■■	■■■
Diethyl ether	–	■■■	■■■
Dimethyl sulfoxide (DMSO)	100 %	–	■■■
Dimethyl sulfoxide (DMSO)	50 %	–	■■■
Dimethyl sulfoxide (DMSO)	10 %	–	■■■
Acetic acid ethyl ester	–	–	■■■
Ethanol (denatured)	96 %	–	■■■
Formaldehyde	37 %	–	■■■
Isoamyl alcohol	> 98 %	–	■■■
Isopropanol	100 %	–	■■■
Methanol	100 %	–	■■■
Petroleum ether	–	■■■	■■■
Phenol	–	–	■■■
Toluol	–	■■■	■
Trichloromethane (chloroform)	–	■■■	■■■
Xylol	–	■■■	■■■

4.3 Cleaning agents and disinfectants

Designation	Concentration	PP
COUNT-OFF Liquid Concentrate	2 %	■■■■
COUNT-OFF Surface Cleaner	–	■■■■
Dismozon pur (peroxide-based)	4 %	■■■■
DNA AWAY	–	■■■■
DNA-ExitusPlus	–	■■■■
Formaldehyde	6 %	■■■■
Helipur (phenol-based)	6 %	■■■■
Hexaquart S (QAV-based)	5 %	■■■■
Korsolex basic (aldehyde-based)	5 %	■■■■
Meliseptol (alcohol-based)	–	■■■■
Sodium hypochlorite	10 %	■■■■
RNase AWAY	–	■■■■
RNase Exitus plus	–	■■■■
Hydrogen peroxide	35 %	■■■■
Ethanol	70 %	■■■■

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