

Chemical Resistance

Combitips advanced®/ViscoTip®
English (EN)

1 Basic conditions

The following basic conditions apply:

- Storage of the material to be tested in the liquid for 24 hours.
- The material to be tested is tested in the respective liquid for 24 hours.
- The chemical resistance only refers to the plastics used in the consumable.
- The chemical resistance does not apply to other products.

2 Plastics used

Dispenser tip	Material
Cylinder	Polypropylene (PP)
Piston, 0.1 mL and 0.2 mL	Polyethylene (PE) with glass fiber (GF)
Piston, 0.5 mL to 50 mL	Polyethylene (PE)
Adapter advanced	Polybutylene terephthalate (PBT)

3 Evaluation criteria

Symbol	Resistance	Explanation
■■■	Resistant	The chemical can be used.
■■	Limited resistance	The chemical can be used for a limited period of time.
■	Not resistant	Increased risk and wear. The chemical may only be used with utmost caution. The dispensing results may be outside the defined limits.

4 Liquids and mixtures

Designation	Concentration (maximum)	Resistance
Acetone	–	■■
Acetonitrile	–	■■■
Ammonia solution	25 %	■■■
Cesium chloride	–	■■■
Trichloromethane (chloroform)	–	■■
Cyclohexanone	–	■■■
Dichloromethane (methylene chloride)	–	■■
Diethyl ether	–	■■
Dimethyl sulfoxide (DMSO)	100 %	■
Acetic acid	96 %	■■■
Acetic acid ethyl ester	–	■■■
Ethanol	96 %	■■■
Formaldehyde	37 %	■■■

Designation	Concentration (maximum)	Resistance
Glycerol	86 %	■■■
Isoamyl alcohol	–	■■
Isopropanol	–	■■■
Methanol	–	■■■
Mineral oil	–	■■
Caustic soda	20 %	■■■
<i>n</i> -hexane	–	■■
Paraffin oil	–	■■
Polyethylene glycol (PEG)	50 %	■■■
Perchloric acid	10 %	■■■
Petroleum ether	–	■■
Phenol	–	■■
Bovine serum albumin (BSA)	80 mg/mL	■■■
Nitric acid	65 %	■■
Hydrochloric acid	32 %	■■■
Sulfuric acid	96 %	■■■
Carbon tetrachloride	–	■■
Toluol	–	■■
Trichloroacetic acid	100 %	■■
Sodium dodecyl sulfate (SDS)	10 %	■■■
Water (bidistilled)	–	■■■
Xylol	–	■■

Designation	Concentration (maximum)	Resistance
Mixture I	Dulbecco's Modified Eagle's Medium (DMEM)	–
	Fetal calf serum (FCS)	10 %
Mixture II	Dulbecco's Modified Eagle's Medium (DMEM)	–
	Fetal calf serum (FCS)	10 %
	Dimethyl sulfoxide (DMSO)	10 %
Mixture III	Phosphate-buffered saline (PBS)	–
	Tween® 20 (Sigma-Aldrich)	0,1 %