DispensMate Dispenser Chemical Compatibility at 20℃

The devices of DLAB-DispensMate which contact with dispensed liquid consist of BSG, PTFE, FEP, and closure cap of outlet is PP; non-contact liquids parts consist of PC and other materials.

The devices of DLAB-DispensMate-Pro which contact with dispensed liquid consist of BSG, PFA, PTFE, FEP, ETFE, PVDF and closure cap of outlet is PP; non-contact liquids parts consist of PC and other materials.

Please notice the table is just a directional guide not the manufacturer's commitment. Please read the user manual carefully before use and to do related experiments can necessarily which can be used to determine whether should be used. Good laboratory practice would be to rinse out the liquid handing unit at the end of each day with distilled water to prevent corrosive liquids being left in contact with the parts for too long.

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	DispensMate-Pro	*DispensMate*		*DispensMate-Pro*	*DispensMate*		*DispensMate-Pro*	*DispensMate*
Acetaldehyde	+	+	Cyclohexane	+		Mineral oil (engine oil)	+	+
Acetic acid (glacial),100%	+		Cyclohexanone	+	+	Monochloroacetic acid	+	+
Acetic acid ,96%	+	+	Cyclopentane	+		Nitric acid	+ (≤30%)	+ (≤10%)
Acetic anhydride	+	+	Decan	+	+	Nitric acid 30%-90%	+	-
Acetone	+		1-Decanol	+	+	Nitrobenzene	+	+
Acetonitrile	+		Dibenzyl ether	+	+	Oleic acid	+	+
Acetophenone	+		Dichloroacetic acid	+		Oxalic acid	+	+
Acetyl chloride	-	-	Dichlorobenzene	+	+	n-Pentane	+	
Acetylacetone	+	+	Dichloroethane	+		Peracetic acid	-	-
Acrylic acid	+	+	Dichloroethylene	+		Perchloric acid	+	+
Acrylonitrile	+	+	Dichloromethane	+		Perchloroethylene	+	
Adipic acid	+	+	Diesel oil (heating oil) ,bp 250-350 °C	-	-	Petroleum ,bp 180-220°C	-	-
Allyl alcohol	+	+	Diethanolamine	+	+	Petroleum ether ,bp 40-70°C	-	-
Aluminum chloride	+	+	Diethyl ether	+	+	Phenol	+	+
Amino acids	+	+	Diethylamine	+	+	Phenylethanol	+	+
Ammonia，20%	+	+	1,2 Diethylbenzene	+	+	Phenylhydrazine	+	+
Ammonia，20-30%	+		Diethylene glycol	+	+	Phosphoric acid , 85% + Sulfuric acid 98% 1:1		
Ammonium chloride	+	+	Dimethyl sulfoxide(DMSO)	+	+	Phosphoric acid , ≤85%	+	+
Ammonium fluoride	+	+	Dimethylaniline	+	+	Piperidine	+	+
Ammonium sulfate	+	+	Dimethylformamide (DMF)	+	+	Potassium chloride	+	+
n-amyl acetate	+	+	1,4 Dioxane	+		Potassium dichromate	+	+
Amyl alcohol (pentanol)	+	+	Diphenyl ether	+	+	Potassium hydroxide	+	+
Amyl chlorid (Chloropentan)	+		Essential oils	-	-	Potassium permanganate	+	+
Aniline	+	+	Ethanol	+	+	Propionic acid	+	+
Barium chloride	+	+	Ethanolamine	+	+	Propylene glycol (Propanediol)	+	+
Benzaldehyde	+	+	Ethyl acetate	+		Pyridine	+	+
Benzene	+	+	Ethylbenzene	+		Pyruvic acid	+	+
Benzine (Petroleum benzine)	+		Ethylene chloride	+		Salicylaldehyde	+	+
Benzoyl chloride	+	+	Fluoroacetic acid	+		Scintillation fluid	+	+
benzyl alcohol	+	+	Formaldehyde , ≤ 40%	+	+	Silver acetate	+	+

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	DispensMate-Pro	*DispensMate*		*DispensMate-Pro*	*DispensMate*		*DispensMate-Pro*	*DispensMate*
Benzyl amine	+	+	Formamide	+	+	Silver nitrate	+	+
Benzyl chloride	+	+	Formic acid≤50%	+	+	Sodium acetate	+	+
Boric acid ,10%	+	+	Glycerol	+		Sodium chloride	+	+
Bromobenzene	+	+	Glycol (Ethylene glycol)	+		Sodium dichromate	+	+
Bromonaphthalene	+	+	Glycolic acid , ≤50%	+	+	Sodium fluoride	+	+
Butanediol	+	+	Heating oil (diesel oil), bp 250-350 °C	+		Sodium hydroxide ≤50%	+	+
1-Butanol	+	+	Heptane	+	+	Sodium hypochlorite	+	+
Butyl acetate	+	+	Hexane	+		Sulfuric acid , 98%		
Butyl methyl ether	+	+	Hexanoic	+	+	Tartaric acid	+	+
Butylamine	+	+	Hexanol	+	+	Tetrachlorethylene	+	+
Butyric acid	+	+	Hydriodic≤ 57%	+	+	Tetrahydrofuran (THF)	+	
Calcium carbonate	+	+	Hydrobromic acid	+		Tetramethylammonium hydroxide	+	
Calcium chloride	+	+	Hydrochloric acid≤30%	+	+	Toluene	+	
Calcium hydroxide	+	+	Hydrogen peroxide ≤35%	+		Trichloroacetic acid	+	
Calcium hypochlorite	+	+	Isoamyl alcohol	+	+	Trichlorobenzene	+	
Carbon tetrachloride	-	-	Isobutanol	+	+	Trichloroethane	+	
Chloro naphthalene	+	+	Isooctane	+		Trichloroethylene	+	+
Chloroacetaldehyde ,45%	+	+	Isopropanol (2-propanol)	+	+	Trichlorotrifluoro ethane	+	
Chloroacetic acid	+	+	Isopropyl ether	+	+	Triethanolamine	+	+
Chloroacetone	+	+	Lactic acid	+	+	Triethylene glycol	+	+
Chlorobenzene	+	+	Methanol	+		Trifluoro ethane	+	
Chlorobutane	+	+	Methoxybenzene	+	+	Trifluoroacetic acid	+	+
Chloroform	+		Methyl benzoate	+	+	Turpentine	-	-
Chlorosulfonic acid	+		Methyl butyl ether	+	+	Urea	+	+
Chromic acid ≤50%	+	+	Methyl ethyl ketone	+	+	Xylene	+	
Chromosulfuric acid	+	+	Methyl formate	+	+	Zinc chloride, ≤10%	+	+
Copper sulphate	+	+	Methyl propyl ketone	+	+	Zinc sulfate, ≤10%	+	+
Cresol	-	-	Methylene chloride	+		Cumene (Isopropyl benzene)	+	+

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	DispensMate-Pro	DispensMate		DispensMate-Pro	DispensMate		DispensMate-Pro	DispensMate
Ferric chloride≤30%	+	+	Sulfurous acid	+	+	2-Furaldehyde	+	+
Cupric chloride≤30%	+	+	Difluoroacetic acid	+	+	Triethylamine	+	+
Citric Acid≤50%	+	+	Fluoroethene	+	+	Dibutyl ether	+	+
Magnesium chloride≤40%	+	+	Butanol	+	+	Carbon disulfide	+	+
Hydrogen Sulfide	+	+	Benzyl alcohol	+	+	Fluorobenzene	+	+
Hydroxamic acid	+	+	Furfuryl alcohol	+	+	Methyl acetate	+	+
Dibutyl phthalate	+	+	Dioctyl Phthalate	+	+			

Explanations

- "+" represent good resistance.
- "blank" represent acceptable with limitations.
- "-" represent not recommended.

Notes:

1. Hydrochoric acid – in the presence of oxidising may cause slight attack on prolonged boiling.
2. Sulphuric acid – will dull the surface with prolonged heating at above 250°C.
3. Dispensmate-pro dispenser with specifications of 0.5-5mL / 1.0-10ml /2.5-25mL is not suitable for sulphuric acid (98%) removal. Specifications of 5-50mL /10-100mL Dispensmate-Pro bottle mouth dispenser is suitable for sulphuric acid (98%) removal.
4. Nitric acid (fuming) – may dull the surface with prolonged heating.
5. Phosphoric acid – may dull the surface with prolonged heating.
6. Potassium hydroxide – the fused salt will cause slight attack.
7. Sodium hydroxide – the fused salt will cause slight attack.
8. Hydrogen peroxide 30% - in the presence of hydrochloric acid may cause slight attack on prolonged boiling.
9. Ammonia – heating in an ammonia atmosphere will darken and dull the surface, leading to a porous crystalline appearance.
10. Chlorine – in the presence of hydrochloric acid may cause slight attack on prolonged boiling.
11. Potassium permanganate – in the presence of hydrochloric acid may cause slight attack on prolonged boiling. 12 Sodium carbonate – the fused salt may cause slight attack.
12. Mercury – will readily attack at any temperature.
13. Silver nitrate – the fused salt may cause slight attack and discolour the surface.
14. Organic compounds - most organic compounds on the market do not have corresponding data, please do a preliminary test

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