

DispensMate Dispenser Chemical Compatibility at 20°C

The devices of Dragonlab-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. Please note that these tables are just a directional guide not the manufacturer's commitment. Please read the user manual carefully before use and to do related experiments 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.

CHEMICAL	BSG	PTFE	FEP	PC	PP
Acids					
Acetic, Glacial	R			NR	R
Acetic, 25%	R	R	R	R	R
Hydrochloric, Concentrated	R				
Hydrochloric, 20%	R	R	R	SR	R
Sulphuric, concentrated	R				
Sulphuric, 25%	R	R	R	R	R
Nitric, Concentrated	R				
Nitric, 30%	R	R	R	R	SR
Phosphoric, 25%	R	R	R		4
Formic, 25%	R	R	R		
Trichloroacetic, 10%	R	R	R	SR	SR
Formic Acid, 85%	R	R	R	R	R
Arsenic Acid	R				
Boric Acid, 10%	R	R	R	R	R
Chromic Acid, 10%	R	R	R	R	R
Hydrofluoric Acid, 35%	NR	Exceptions	R	NR	R
Phosphoric Acid 85%	R	R	R	R	R
Nitric Acid, 50%	R	R	R		
Sulphuric Acid, 95%	R	R	R	NR	NR
Alkalies					
AmmoniumHydroxide,25%	R	R	R	NR	R
Potassium Hydroxide	R	R	R	NR	R
Sodium Hydroxide	R	R	R	NR	R
Alcohols					
Methanol, 98%	R	R		R	R
Ethanol, 98%	R			R	R
Ethanol, 70%	R			R	R
Isopropanol,n-Propanol	R			R	R
Amyl Alcohol, Butano	R				
Benzyl Alcohol	R	R	R	SR	SR
Ethylene Glycol	R	R	R	R	R
Propylene Glycol	R	R	R	R	R
Glycerol	R	R	R	R	R
Hydrocarbons					
Hexane, Xylene	R	R	R	NR	R
Toluene, Benzene	R	R	R	NR	SR
Kerosene, Gasoline	R				
Tetralin, Decalin	R				
Halogenated Hydrocarbons					
Methyl Chloride	R			NR	SR
Chloroform	R	R	R	NR	NR
Trichloroethylene	R	R	R	NR	NR
Monochlorobenzene, Freon	R				
Carbon Tetrachloride	R	R	R	NR	NR
Ketones					
Acetone	R	R	R	NR	R
Methyl Ethyl Ketone	R	R			
Isopropylacetone	R				

KEY:

R = RESISTANT NR = NON-RESISTANT SR = SLIGHTLY RESISTANT EXCEPTIONS = RESISTANT WITH EXCEPTIONS

CHEMICAL	BSG	PTFE	FEP	PC	PP
Methyl Isobutyl Ketone	R				
Esters					
Ethyl Acetate	R	R		NR	R
Methyl Acetate	R				
Amyl & Propyl Acetate	R				
Butyl Acetate	R	R	R	NR	NR
Propylene Glycol Acetate	R				
2-Ethoxyethyl Acetate	R				
Methyl Cellosolve Acetate	R				
Benzyl Benzoate	R				
Isopropyl Myristate	R				
Tricresol Phosphate	R				
Oxides – Ethers					
Ethyl Ether	R				
1,4 Dioxane & Tetrahydrofuran	R	R	R	NR	SR
Dimethylsulphoxide (DMSO)	R	R	R	NR	R
Isopropyl Ether	R			NR	NR
Solvents with Nitrogen					
Dimethyl Formamide	R	R	R		
Diethylacetamide	R	R			
Triethanolamine	R				
Aniline	R	R	R	SR	R
Pyridine	R	R	R	NR	SR
Miscellaneous					
Phenol, Aqueous, 10%	R				
Formaldehyde Solution, 30%	R	R	R	R	R
Hydrogen Peroxide, 30%	R	R	R	R	R
Silicone Oil & Mineral Oil	R				
Pyridine	R	R	R	NR	SR
Acetaldehyde	R	R	R	SR	R
Ammonia, 25% ac. Sol.	R	R		NR	R
Ammonium	R				
Calcium Chloride aq. Sol	R	R	R	R	R
Chlorine	R	R	R		
Chlorobenzene	R			NR	NR
Fluorinated Hydrocarbons	R				
Hexane	R	R	R	R	R
Iodine (tincture of)	R	R			
Potassium Chloride aq. Sol.	R			R	R
Potassium Permanganate aq. Sol.	R			R	R
Magnesium Chloride aq. Sol.	R				
Methylene Chloride	R	R	R	NR	SR
Sodium Carbonate	R				
Sodium Dichromate	R	R	R	R	R
Phenol, 100%	R	R	R	NR	R
Mercury	R	R	R	R	R
Silver Nitrate	R	R	R	R	R
Toluene	R	R	R	NR	SR
Hydrogen Peroxide, 30%	R	R	R	NR	R
Xylene	R	R	R	NR	NR
Zinc Chloride, 10%	R	R	R	R	R
Zinc Sulphate, 10%	R	R	R	R	R

NOTES:

- ① HYDROCHLORIC 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 NITRIC ACID (FUMING) – may dull the surface with prolonged heating.
- ④ PHOSPHORIC ACID – may dull the surface with prolonged heating.
- ⑤ POTASSIUM HYDROXIDE – the fused salt will cause slight attack.
- ⑥ SODIUM HYDROXIDE – the fused salt will cause slight attack.
- ⑦ HYDROGEN PEROXIDE 30% - in the presence of hydrochloric acid may cause slight attack on prolonged boiling.
- ⑧ AMMONIA – heating in an ammonia atmosphere will darken and dull the surface, leading to a porous crystalline appearance.
- ⑨ CHLORINE – in the presence of hydrochloric acid may cause slight attack on prolonged boiling.
- ⑩ POTASSIUM PERMANGANATE – in the presence of hydrochloric acid may cause slight attack on prolonged boiling.
- ⑪ 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 – there is no data available on most of the organic compounds listed, it is unlikely they would have any detrimental effect but we can give no guarantee to this statement.