

2LabsToGo-Eco – Solvent compatibility

While the seal material of both the high-frequency solenoid valve and the T-valve consists of FFKM (perfluoroelastomer), which is resistant to all organic solvents usually used in HPTLC, the micropump of the autosampler is only available with FKM (fluoroelastomer) or EPDM (Ethylene/propylene rubber) as seal materials. They have different compatibility properties listed in the table below, to be respected for the sample solvent and rinsing solvent, when the autosampler is used.

For the syringe pump, there are no limitations concerning the used solvents, both for sample application and development.

Solvent compatibility of FKM and EPDM

Solvent	FKM ¹⁾	EPDM ²⁾
Aliphatic/aromatic hydrocarbons	↑	↓
Halogenated solvents	↓	↓
Alcohols	↑ ³⁾	↑
Acetone	↓	↑
Ethylmethylketone	↓	↑
Chloroform	↓	↓
Ethyl acetate	↓	↑ ⁴⁾
Ethers	↓	↓
Acetic/formic acid up to 10%	↑	↑
Ammonium hydroxide up to 10%	↑	↑
Acetonitrile ⁴⁾	↑	↑
↑ suitable, ↓ not suitable		

¹⁾ Lee pump LPLA1250650L (PEEK/FKM)

²⁾ Lee pump LPLA1251650L (PEEK/EPDM), formerly LPLX0509650B

³⁾ but not methanol and ethanol

⁴⁾ but do not leave the micropump for a longer period than needed; rinse with ethanol.

The data in the table above concern the pure solvent. A low content of a non-suitable solvent in a suitable solvent should be acceptable but without guarantee. However, do not leave the pump in unsafe solvents for a longer time than needed, rinse with ethanol.

The compatibility data were obtained from:

https://ms-crm-dupont.my.salesforce-sites.com/CRG_TlargoGuide