

## FM-PhEs HPLC Column Care Information

### Stationary Phase Structure

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The stationary phase can be characterized as a polymeric fused monolith structure. The packing material is formed ex-situ then is packed into the column and fused to form a monolithic structure. The fused monolith structure has through-pores but no internal micropores, resulting in fast mass transfer kinetics. The Invenca FM-PhEs HPLC columns are based on a polymeric stationary phase with a phenyl-ester chemistry.

### Solvent Compatibility

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Invenca phenyl-ester HPLC packings are:

- Stable from pH 2 – 12
- Stable to most salts and buffers
- Stable to 100% aqueous solutions
- Stable to most organic solvents
- Stable to most cleaning solutions

The phenyl-ester HPLC packings are **not recommended** for use with:

- Halogenated solvents, Nitromethane, DMF  
Note: The use of halogenated ion-pairing chemistries, such as trifluoroacetic acid (TFA) in dilute solution has not been observed to cause damage to the FM-PhEs HPLC column packings
- Primary amines above 40°C
- Concentrated sulfuric acid or other strong oxidizing compounds
- Primary aldehydes above 100°C

### Storage Solvent

FM-PhEs HPLC columns may be stored in your mobile phase while in use, although we recommend at least 15% organic content to prevent biofilm formation. For extended storage periods, Invenca recommends storing the FM-PhEs HPLC columns in 50% methanol, or isopropanol.

### Temperature and Pressure Limits

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Maximum pressure: 5000psi

Maximum temperature: 80°C

### Column Cleaning

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Invenca FM-PhEs HPLC columns may be cleaned with

- Standard solvent series such as H<sub>2</sub>O/MeOH/MeCN/IPA/Hexane
- 10mM NaOH / MeOH (50/50)