



Operating Instruction Sheet MaltoShell-DMP

Column Description

Product Type: Analytical columns for both HPLC and SFC operations
Chiral Selector: Derivatized maltodextrin was covalently bonded on 2.7 μm superficially porous particles (SPPs)
Hardware: Idex® (Isobar) with 2 micron (inlet) and 1 micron (outlet) frits
Dimensions: Available in 5/10/15 cm length with 2.1/3.0/4.6 mm I.D.

QC Test Conditions

Sample: *trans*-stilbene oxide (2 mg/mL in mobile phase)
Mobile Phase: 10/90, 2-Propanol/Heptane
Temperature: Ambient (23 °C)
Injection Volume: 0.1-0.6 μL
Detection: UV 230 nm

Operation Parameters

Flow Direction: Indicated by column label
Max Pressure: 400 bar for 4.6 mm I.D. columns;
500 bar for 3.0 mm/2.1 mm I.D. columns
Max Flow Rate: Within pressure limits, there is no limit on the flow rate
Temperature: 5-45 °C (allow step-wise increase/decrease @1 °C/min)

Mobile Phase Solvents

These CSPs can be used in any type of organic solvents without any issue. However, switching to or from a normal phase condition to other mobile phases, please use ethanol or IPA as a transition solvent. Allow at least 10 column volumes of conditioning time before injection.



Screening mobile phases

Polar Organic: 60/40/0.3/0.2 ACN/MeOH/AA/TEA

Normal Phase: 20/80/0.1 EtOH/Hexane (or Heptane)/TFA (or TEA)

Optimizations

Polar Organic: Change the ratio of ACN/MeOH

Normal Phase: Change ratio and/or different type of alcohol

Flow Rate: Change the flow rate according to the retention time

Temperature: Change the temperature

Storage Pure ethanol/IPA is recommended for long term storage.

Regeneration Flush the column with 50/50, ACN/MeOH @ lower flow rates for at least 2 hours. Then rinse with EtOH with mobile phase.

Shipment Each column has been QC-tested before shipping. The columns are stored in pure ethanol.