Solvents
Analysis of residual solvents in drug substances

Application Note
BioPharma

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Introduction
Gas chromatography using an Agilent CP-Select 624 CB column separates seven residual solvents in a drug in ten minutes.
Conditions

Technique: GC-capillary
Column: Agilent CP-Select 624 CB, 0.32 mm x 30 m, fused silica WCOT CP-Select 624 CB (df = 1.8 μm) (Part no. CP7414)
Temperature: 40 °C (10 min) → 180 °C, 15 °C/min
Carrier Gas: He, 50 kPa (0.5 bar, 7 psi)
Injector: Split, 60 mL/min
  T = 140 °C
Detector: FID
  T = 250 °C
Sample Size: 2 μL
Concentration Range: 100 ppm
Solvent Sample: water

Peak identification
1. methanol
2. ethanol
3. acetone
4. 2-propanol (isopropanol)
5. 2-methyl-2-propanol (tert.-butanol)
6. methyl tert.butyl ether (MTBE)
7. propanol

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