Solvents
Analysis of impurities in acetone

Application Note

Materials Testing & Research

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Introduction
Gas chromatography with an Agilent CP-Wax 52 CB column separates eight impurities in acetone in ten minutes.
Conditions

Technique: GC-capillary

Column: Agilent CP-Sil 52 CB, 0.53 mm x 25 m fused silica
   WCOT CP-Sil 52 CB (2.0 μm) (Part no. CP7658)

Temperature: 35 °C (2 min) → 250 °C, 10 °C/min

Carrier Gas: N\textsubscript{2}, 47 cm/s (10 mL/min)

Injector: Direct
   T = 250 °C

Detector: FID, 100 x 10\textsuperscript{-12} Afs
   T = 275 °C

Sample Size: 0.2 µL

Solvent Sample: acetone

Peak identification

1. diisopropylether + acetaldehyde
2. acetone
3. methanol
4. 2-butanone
5. ethanol + 2-propanol
6. benzene
7. methylisobutylketone (4-methyl-2-pentanone)
8. mesityl oxide
9. methylisobutylcarbinol (4-methyl-2-pentanol)