Dioxins

Application Note

Environmental

Authors

Agilent Technologies, Inc.

Introduction

GC/MS with an Agilent CP-Sil 88 for Dioxins column separates seven components in a sample of dioxin in 26 minutes.
Conditions

Technique: GC-capillary

Column: Agilent CP-Sil 88, 0.22 mm x 50 m fused silica WCOT
CP-Sil 88 (0.2 µm) (Part no. CP7588)

Temperature: 45 °C (3 min) → 190 °C (ballistic), → 240 °C,
5 °C/min

Injector: Splitless time: 1 min

Detector: Mass Spectrometer with selected ion monitoring
m/z = 320 and 322

Courtesy: Environment Monitoring and Support Laboratory
U.S. Environmental Protection Agency
Cincinnati/Ohio
Mr James Eichelberger

Peak identification

1. 1, 4, 7, 8 TCDD
2. 2, 3, 7, 8, TCDD
3. 1, 2, 3, 7 TCDD
   and 1, 2, 3, 8 TCDD
4. 1, 2, 3, 4, TCDD
5. 1, 2, 7, 8, TCDD
6. 1, 4, 6, 9, TCDD
7. 1, 2, 6, 7, TCDD

Retention time – approximately 26 min