Dioxins and benzofurans

Analysis of dioxins and benzofurans via comprehensive GC x GC

Application Note

Environmental

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Introduction
Analysis of dioxins and benzofurans by GC, with a PDMS phase equivalent to Agilent VF-1ms, and Agilent VF-23ms, is accomplished in 90 minutes.
Conditions

Technique: GC x GC

Column 1: 100% methyl PDMS, Agilent equivalent VF-1 ms, 0.25 mm x 30 m (df = 0.25 µm) (Part no. CP8912)

Column 2: Agilent VF-23ms, 0.10 mm x 1 m (df= 0.1 µm) (Part no. CP8819) as 10 m column

Temperature 1: 90 °C, (2 min), 30 °C/min → 170 °C, 5 min, 1.5 °C/min → 290 °C

Temperature 2: 90 °C, (2 min), 30 °C/min → 170 °C, 5 min, 1.5 °C/min → 290 °C

Carrier Gas: Helium

Pressure program: 300 kPa

Injector: Splitless, T = 290 °C

Detector: ECD, T = 300 °C

Odulator: single jet

Sample Size: 1 µL

Sample: 100 pg/µL

Courtesy: Peter Korytar, The Netherlands Institute for Fisheries Research, Ijmuiden