Halogenated hydrocarbons
Analysis of chlorinated volatiles and \( C_1-C_6 \) hydrocarbons

Application Note

Environmental

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Introduction
Gas chromatography with an Agilent CP-SilicaPLOT column separates nine chlorinated volatiles and hydrocarbons in 14 minutes.

Chloromethane (methyl chloride) and vinylchloride are separated well from butane and can be quantified accurately because of the high retention, good separation and peak shape that the CP-SilicaPLOT column produces.
Conditions

Technique: GC-capillary
Column: Agilent CP-SilicaPLOT, 30 m x 0.32 mm, fused silica PLOT (df = 4 μm) (Part no. CP8567)
Temperature: 30 °C (2 min) → 250 °C, 10 °C/min
Carrier Gas: He, 210 kPa (2.1 bar, 30 psi)
Injector: Split, 1:100
        T = 200 °C
Detector: FID
        T = 300 °C
Sample Size: 1.0 mL
Concentration Range: 100 ppm in N₂

Courtesy: Jim Luong, The Dow Chemical Company, Canada

Peak identification
1. methane
2. ethane
3. propane
4. butane
5. chloromethane (methyl chloride)
6. vinylchloride
7. pentane
8. chloroethane (ethyl chloride)
9. hexane