Halogenated hydrocarbons, C₂
Monitoring vinylchloride (VCM) in air

Application Note

Environmental

Introduction
The robust Agilent CP-SilicaPLOT column provides high retention for very volatile compounds. The major interference in a (VCM) production plant environmental air, 1,2-dichloroethane, is well separated. Detection limits are below 0.1 ppb.
**Conditions**

Technique: GC-capillary

Column: Agilent CP-SilicaPLOT, 0.32 mm x 30 m, fused silica PLOT CP-SilicaPLOT (df = 4 μm) (Part no. CP8567)

Temperature: 50 °C (1 min) → 220 °C, 40 °C/min; 220 °C (0.5 min)

Carrier Gas: He

Injector: PTV, thermal adsorption/desorption on active carbon

\[ T_{ads} = 35 °C \]
\[ T_{des} = 320 °C \]

Detector: MSD, ion 62.00

Sample Size: 300 mL

Concentration Range: 0.1 - 1 ppb in air

Sample Matrix: air

Courtesy: E. Davoli, M. Natangelo and R Fanelli
Mario Negri Institute, Milan, Italy

**Peak identification**

1. vinylchloride (VCM), 1 ppb level
2. 1,2-dichloroethane

[Graph of gas chromatogram with peaks labeled 1 and 2]