



Halogenated hydrocarbons, C₂ – C₆

Determination of degradation products of tetrachloroethylene in polluted surface water

Application Note

Environmental

Authors

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Introduction

The separation of halogenated compounds can be achieved on the Agilent PoraBOND Q capillary column. As this phase has a temperature stability up to 300 °C (320 °C programmed), a wide range of compounds can be eluted from the column, up to the trichlorobenzenes. Volatile compounds such as vinylchloride, dichloromethane and chloromethane are not in the mixture shown here, but can also be quantified. The PoraBOND Q is not affected by the water matrix, resulting in a long life time, even when the sample is injected onto the column as a liquid.



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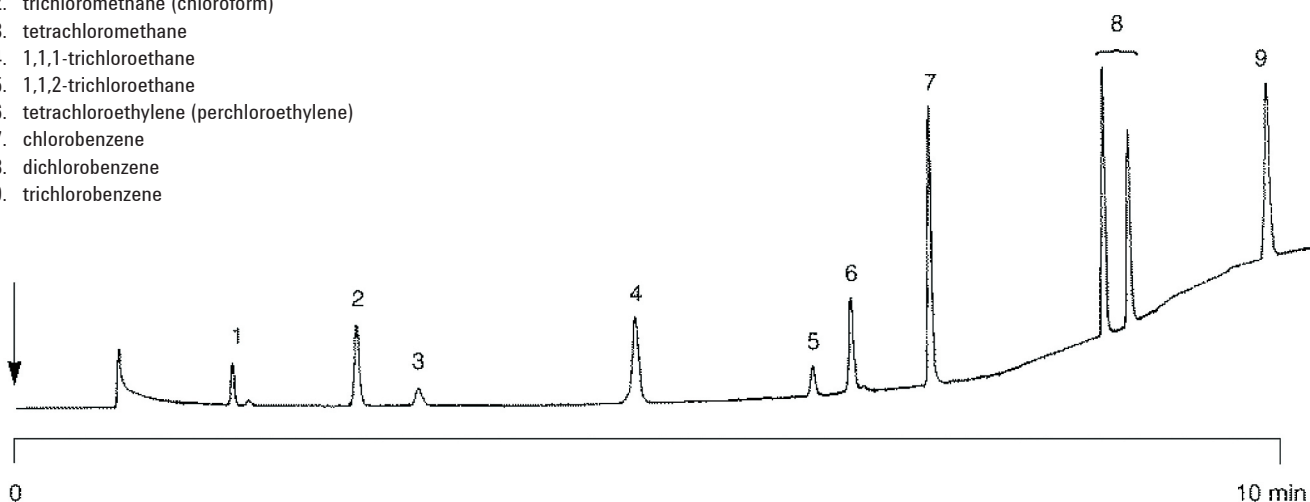
Conditions

Technique : GC-capillary
Column : Agilent PoraBOND Q, 0.32 mm x 25 m,
fused silica PLOT (df= 5 µm) (Part no. CP7351)
Temperature : 150 °C (4 min) → 280 °C, 25 °C/min
Carrier Gas : N₂, 100 kPa (1 bar, 14 psi)
Injector : Split, 20 mL/min
T = 300 °C
Detector : FID
T = 300 °C
Sample Size : 1000 µL, headspace
Concentration Range : 10 ppm
Solvent Sample : water

Courtesy : A. Feenstra,
Solvay Duphar,
Weesp, the Netherlands

Peak identification

1. cis-1,2-dichloroethylene
2. trichloromethane (chloroform)
3. tetrachloromethane
4. 1,1,1-trichloroethane
5. 1,1,2-trichloroethane
6. tetrachloroethylene (perchloroethylene)
7. chlorobenzene
8. dichlorobenzene
9. trichlorobenzene



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This information is subject to change without notice.

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