



Hydrocarbons, $C_{12} - C_{44}$

Analysis of mineral oil

Application Note

Environmental

Authors

Agilent Technologies, Inc.

Introduction

Mineral oil consists mainly of hydrocarbons, which can be separated on the non-polar Agilent CP-Sil 5 CB column. A relatively short column will provide sufficient separation for characterization of the mineral oil. The column must have a high temperature stability. Here an Agilent CP-SimDist UltiMetal column is used. The retention characteristics of the SimDist phase will be very close to the CP-Sil 5 CB. A special feature of the UltiMetal column is the low bleed and the high mechanical stability. The mineral oil can be extracted from soil or water by organic solvent.

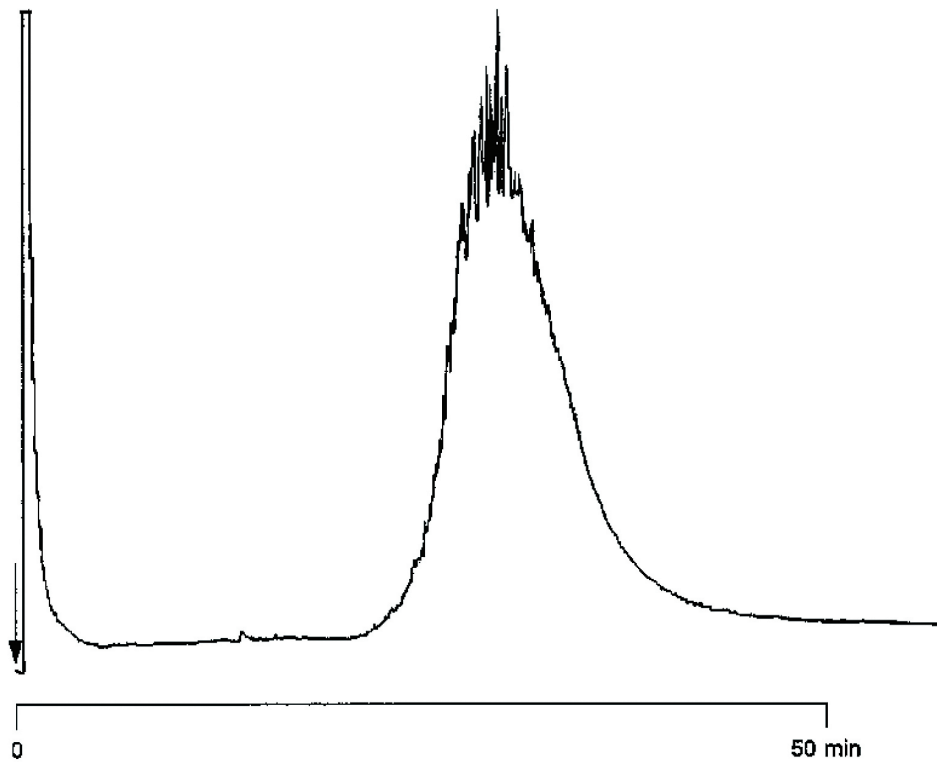


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Conditions

Technique : GC-capillary
Column : Agilent CP-SimDist UltiMetal, 0.53 mm x 10 m
WCOT CP-SimDist UltiMetal (df = 0.17 μm)
(Part no. CP7542)
Temperature : 40 °C (3 min) \rightarrow 340 °C, 10 °C/min; 340 °C (25 min)
Carrier Gas : He, 10 kPa (0.1 bar, 1.4 psi)
Injector : on-column, T = 40 °C
Detector : FID
T = 350 °C
Sample Size : 1 μL
Concentration range : ca. 10 ppm
Solvent sample : dichloromethane

Courtesy : Provincially instituut vor Hygiene, Dr Sc. Rillaerts and
Mr. De Buyser, Kronenburgstraat 45, 2000 Antwerp,
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