Mineral oil in soil

Application Note

Environmental

Authors

Agilent Technologies, Inc.

Introduction

The analysis of mineral oil can be done with high efficiency using GC and the Agilent Select Mineral Oil column. This column was optimized for mineral oil analysis to generate shortest analysis time. For soil analysis an on-column method was developed allowing C_{10} to C_{40} to be determined in less then 5 minutes. The Select Mineral Oil stationary phase was tuned for separation and stabilized for high temperature operation. Upper temperature limit of this column is 400 °C.

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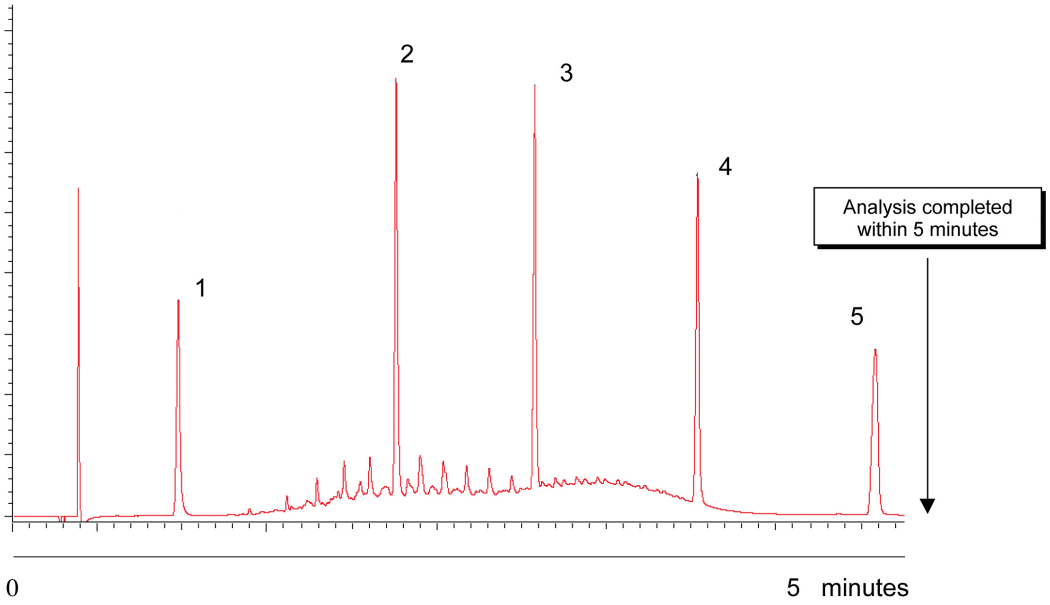
Conditions

Technique	:	GC
Column	:	Agilent Select Mineral Oil, 0.32 mm x 15 m fused silica (optimized filmthickness) (Part no. CP7491)
Temperature	:	55 °C → 320 °C, ballistic temperature program
Carrier Gas	:	Helium, 70 kPa
Injector	:	On-Column
Detector	:	FID
Sample Size	:	1.0 µL
Concentration Range	:	1 ppm in petroleum ether
Courtesy	:	J. Volkers and J. de Smit, Analytico, Barneveld, The Netherlands

Peak identification

1. decane (int.standard)
2. C_{16}
3. C_{22}
4. C_{30}
5. C_{40}



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