



# Spearmint oil

## Application Note

Food Testing & Agriculture

### Authors

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### Introduction

The analysis of complex samples such as essential oils is typically performed on 30 m x 0.25 mm columns. Using an Agilent FactorFour VF-5ms 0.15 mm id column, run time can be halved, with an identical separation.

For some separations where high concentrations are to be measured, the split ratio may have to be increased.



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## Conditions

Technique : GC-capillary  
Column : Agilent FactorFour VF-5ms, 0.15 mm x 20 m  
(df = 0.3  $\mu$ m) (Part no. CP9037)  
Temperature : 75 °C, 4.3 min with 7.5 °C/min to 200 °C  
Carrier Gas : Helium, 160 kPa, 1.6 bar  
Injector : Split, 150 mL/min  
T = 250 °C  
Detector : FID  
T = 300 °C  
Sample : 2  $\mu$ L  
Concentration : 1%

### Standard Dimensions

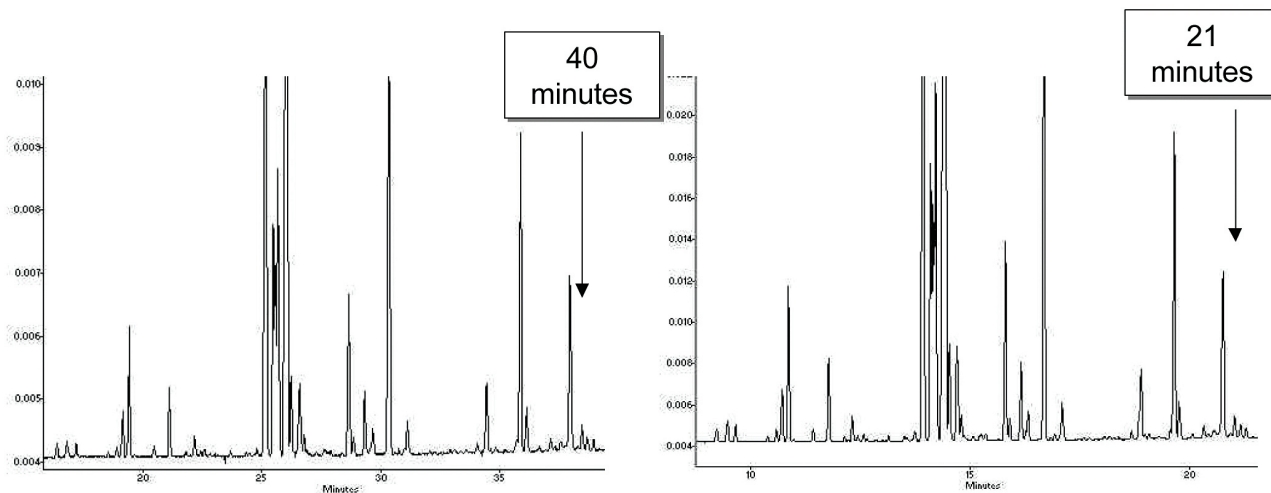
**30m X 0.25mm , df = 0.5 micron, VF-5ms**

Carrier : Helium, split 100 mL/min, 50 Kpa  
Sample size : 2uL , 1%  
Detector : FID  
Temp prog : 75 °C (2min), 4 °C/min to 200 °C

### FAST factorFour

**20m X 0.15mm , df = 0.3 micron, VF-5ms**

Carrier : Helium, split 150 mL/min, 160Kpa  
Sample size : 2uL , 1%  
Detector : FID  
Temp prog : 75 °C (4.3min), 7.5 °C/min to 200 °C



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