

Alcohols, C₁ – C₇

Analysis of whisky

Application Note

Food Testing & Agriculture

Authors

Agilent Technologies, Inc.

Introduction

The Agilent CP-Wax 57 CB phase provides a unique selectivity for the analysis of impurities in alcoholic beverages. Besides the separation of the two fusel alcohols (peaks 12 and 13), the ethyl acetate is separated from the diethyl acetal and the isobutanol from the iso-amylacetate.

The CP-Wax 57 CB has an excellent stability for samples containing high levels of water or water-ethanol mixtures, which makes the phase suitable for the analysis of distilled spirits.



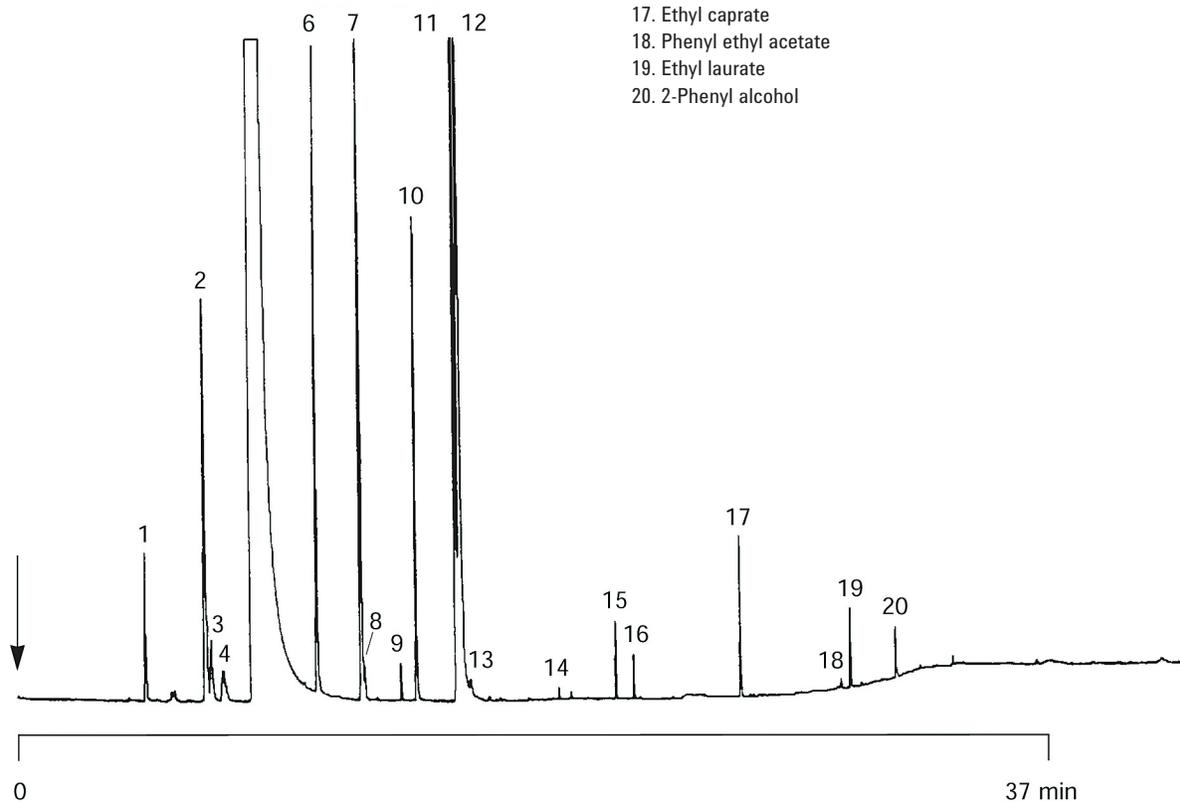
Agilent Technologies

Conditions

Technique : GC-capillary
Column : Agilent CP-Wax 57 CB, 0.25 mm × 50 m, 0.25 μm
(p/n CP97723)
Temperature : 40 °C (5 min) → 200 °C, 5 °C/min
Carrier Gas : H₂, 37 kPa (0.37 bar, 5.2 psi)
Injector : Split, 1:50
T = 200 °C
Detector : FID
T = 200 °C
Sample Size : 1.0 μL
Courtesy : K. MacNamara, Irish Distillers LTD

Peak identification

1. Acetaldehyde
2. Ethyl acetate
3. Diethyl acetal
4. Methanol
5. Butanol-2
6. Propanol
7. Isobutanol
8. Isoamyl acetate
9. Butanol-1
10. 4-Methyl-2-pentanol
(internal standard)
11. 2-Methyl-1-butanol
12. 3-Methyl-1-butanol
13. Ethyl caproate
14. Ethyl lactate
15. Ethyl caprylate
16. Furfural
17. Ethyl caprate
18. Phenyl ethyl acetate
19. Ethyl laurate
20. 2-Phenyl alcohol



www.agilent.com/chem

This information is subject to change without notice.

© Agilent Technologies, Inc. 2015

Printed in the USA

November 30, 2015

First published prior to 11 May, 2010

A01539



Agilent Technologies