

Alcohols

Analysis of impurities in potable ethanol

Application Note

Food Testing & Agriculture

Authors

Agilent Technologies, Inc.

Introduction

The Agilent CP-Wax 57 CB column is highly selective and inert for volatile compounds that have to be analyzed in an alcohol/water matrix. Compounds eluting before the ethanol peak are well separated. The CP-Wax 57 CB phase can withstand repeated aqueous injections and is therefore the best phase for alcoholic beverage analysis. Detection limit of this analysis is 5 ppm.



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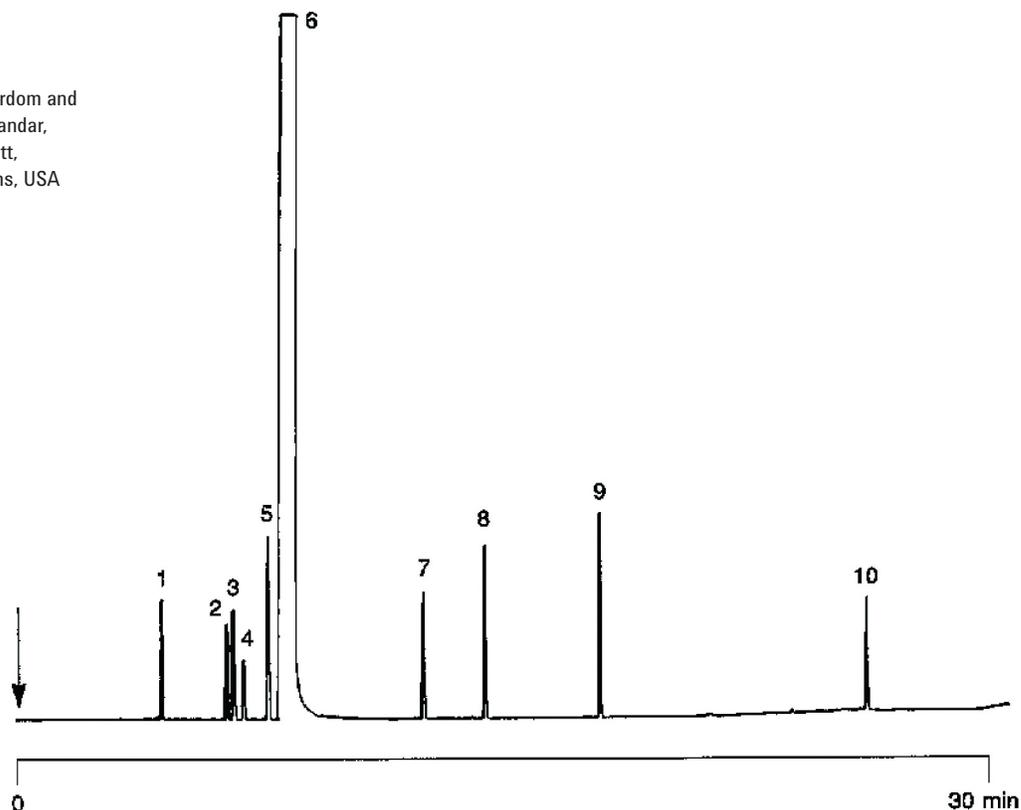
Conditions

Technique : GC-capillary
Column : Agilent CP-Wax 57 CB, 0.25 mm × 50 m, 0.2 μm
(p/n CP97723)
Temperature : 40 °C (10 min) → 180 °C, 10 °C/min;
180 °C (5 min) → 200 °C, 20 °C/min
Carrier Gas : He, 160 kPa (1.6 bar, 23.5 psi)
Injector : Split, 100 mL/min
T = 250 °C
Detector : FID
T = 275 °C
Sample Size : 0.5 μL
Concentration Range : 50 ppm per compound
Solvent Sample : Ethanol

Courtesy : Frank Hagardom and
Ibriham Iskandar,
ITS Calebrett,
New Orleans, USA

Peak identification

1. Acetaldehyde
2. Ethyl acetate
3. Acetal
4. Methanol
5. Benzene
6. Ethanol
7. 1-Propanol
8. Isobutanol
9. 3-Methyl-1-butanol
(isoamyl alcohol)
10. Furfuryl alcohol



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This information is subject to change without notice.

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