

Application Report 15

Fusel Oils in Vodka on Equity-1701

In addition to ethanol and water, alcoholic beverages contain a variety of compounds that are produced during fermentation and/or aging. These are commonly known as fusel oils, and can impart an off taste to the final product if their levels are too high. To ensure consistency, many distilleries monitor the presence and relative levels of these compounds. In this application, the Equity-1701 was used to separate the fusel oils found in vodka. The column was able to separate 6 commonly analyzed compounds from the solvent, with all peaks exhibiting good response and peak shape at low concentration.

Key Words

fusel oils, vodka, alcoholic beverages, Equity, 28387-U

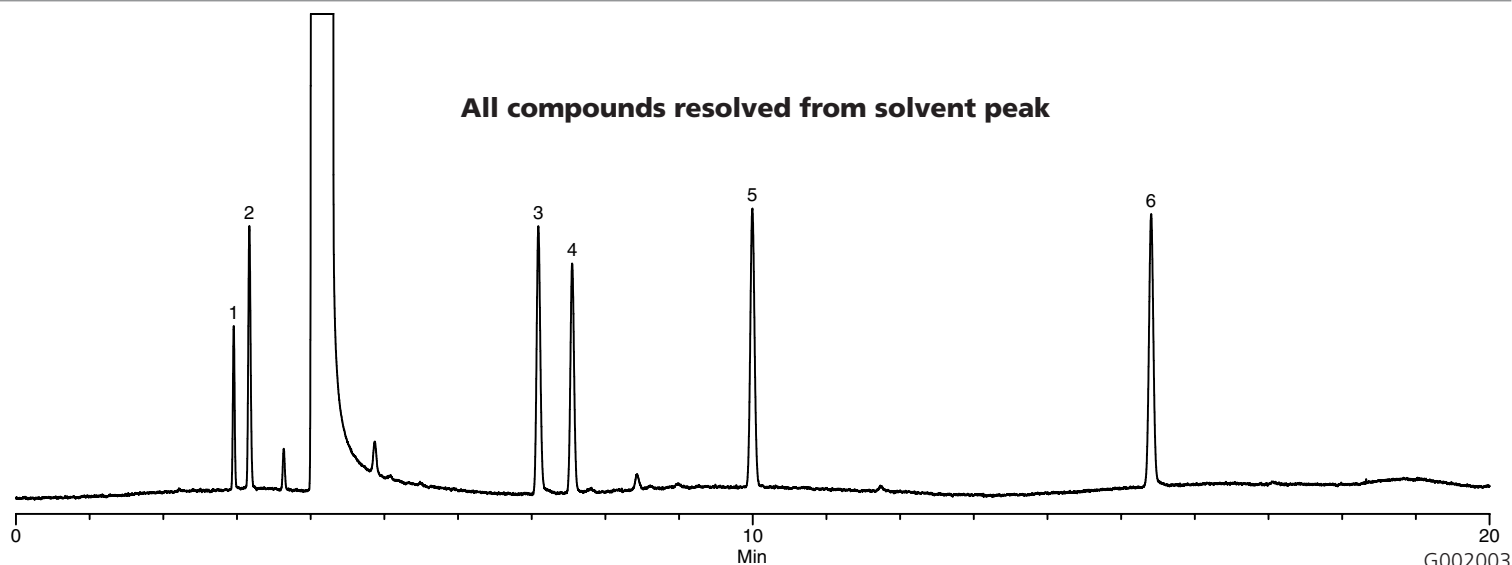
Author: K. Stenerson

Raw Data File Name:

J:\GCDATA\Back1003.

Acquisition System: GC 6407

All compounds resolved from solvent peak



Conditions

Column: Equity-1701, 30m x 0.32mm ID, 1.0 μ m
Cat. No.: 28387-U
Oven: 40°C (5 min) to 85°C @ 4°C/min
Inj.: 150°C
Det.: FID, 210°C
Flow: Helium, 30cm/sec @ 40°C
Injection: 1 μ L, split 100:1
Liner: 4mm ID single tapered
Sample: 1000ppm in 95% undenatured ethanol

Peak IDs

1. Acetadehyde
2. Methanol
3. n-Propanol
4. Ethyl acetate
5. Isobutanol
6. Isoamyl alcohol