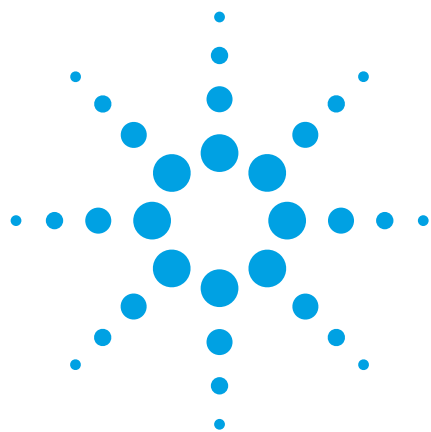




Analysis of Malt Whiskey using an Agilent J&W FactorFour VF-WAXms GC Column

Application Note

Author

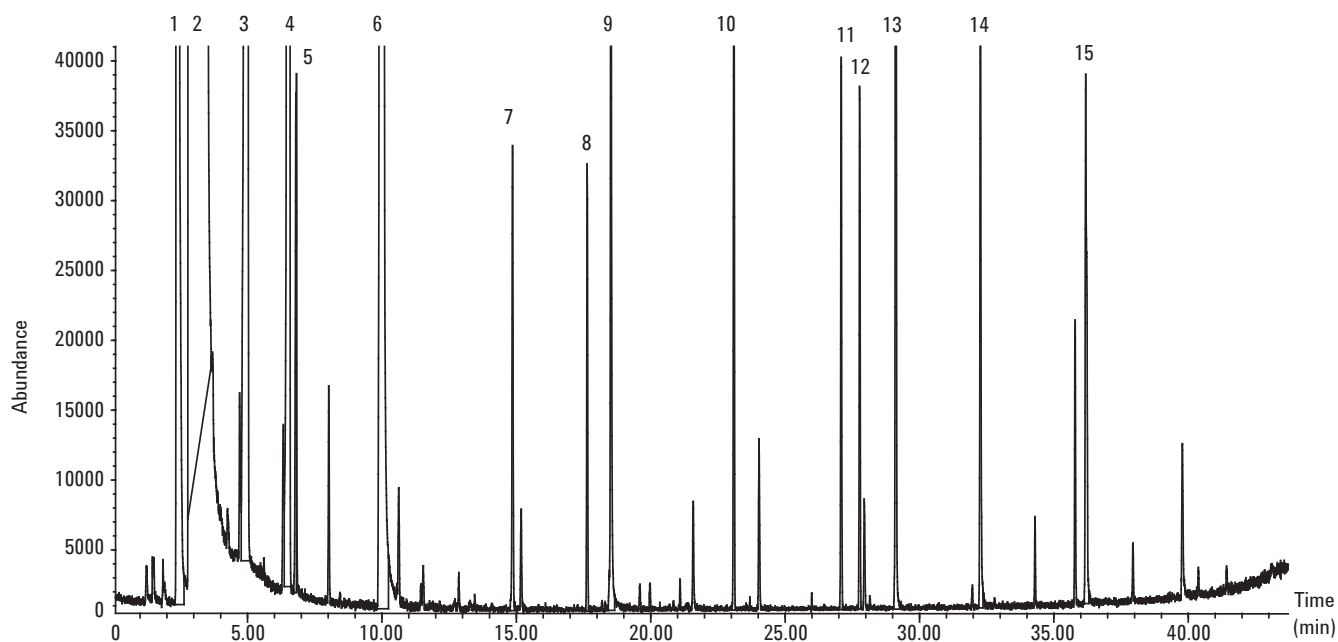
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Introduction

This application note shows the analysis of malt whiskey using an ultra, low bleed VF-WAXms column. The reduced column bleed level in the 210-260 °C temperature range enables a more accurate detection and quantification of impurities eluting close to the maximum temperature of the column. Capric acid and other minor impurities, which elute at these higher temperatures, can be detected at lower concentration levels and with improved accuracy.



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Analysis of malt whiskey using an ultra low bleed VF-WAXms column

Conditions

Technique: GC/MS
 Column: VF-WAXms, 30 m x 0.25 mm x 0.25 μ m (part number CP9205)
 Oven: 40 °C (2 mins), 3 °C/min, 70 °C, 5 °C/min, 250 °C (10 mins)
 Carrier Gas: He, 1.3 mL/min
 Injector: Split 1:25, T = 250 °C
 Detector: MS (EI)
 Sample Size: 1 μ L
 Sample: Malt Whiskey

Key	Time	Component
1	2.44	Ethyl acetate
2	3.49	Ethanol
3	4.99	1-Propanol
4	6.54	Isobutanol
5	6.80	Isoamyl acetate
6	10.06	3-Methyl-1-butanol
7	14.86	Ethyl lactate
8	17.63	Ethyl octanoate
9	18.52	Furfural
10	23.09	Ethyl caprate
11	27.29	Phenylethyl acetate
12	27.77	Ethyl laurate
13	29.12	Phenylethyl alcohol
14	32.26	Caprylic acid
15	36.18	Capric acid

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