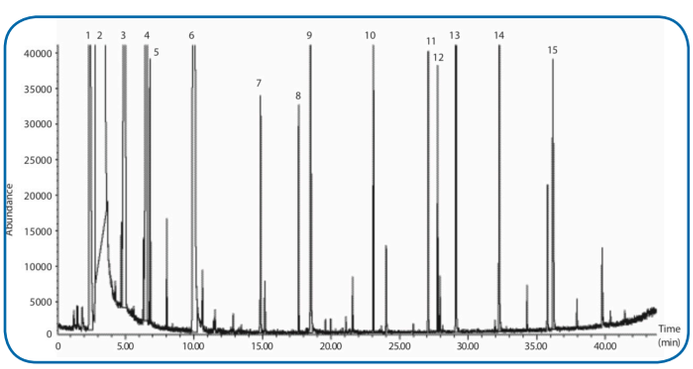
Application Note

Food Testing & Agriculture

Analysis of Malt Whiskey using SCION-WAXMS GC column

This application note shows the analysis of malt whiskey using an ultra, low bleed SCION-WAXMS GC 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.



Conditions	
Technique	GC-MS
Column	SCION-WAXMS 30 m x 0.25 mm, df = 0.25 µm (part number SC32423)
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 µL
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 acetatde
6	10.06	3-Methyl-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

Scion Instruments
1 Bain Square, Kirkton Campus,
Livingston, West Lothian,
EH54 7DQ,
United Kingdom
Phone +44 1506 300 200
sales-eu@scioninstruments.com