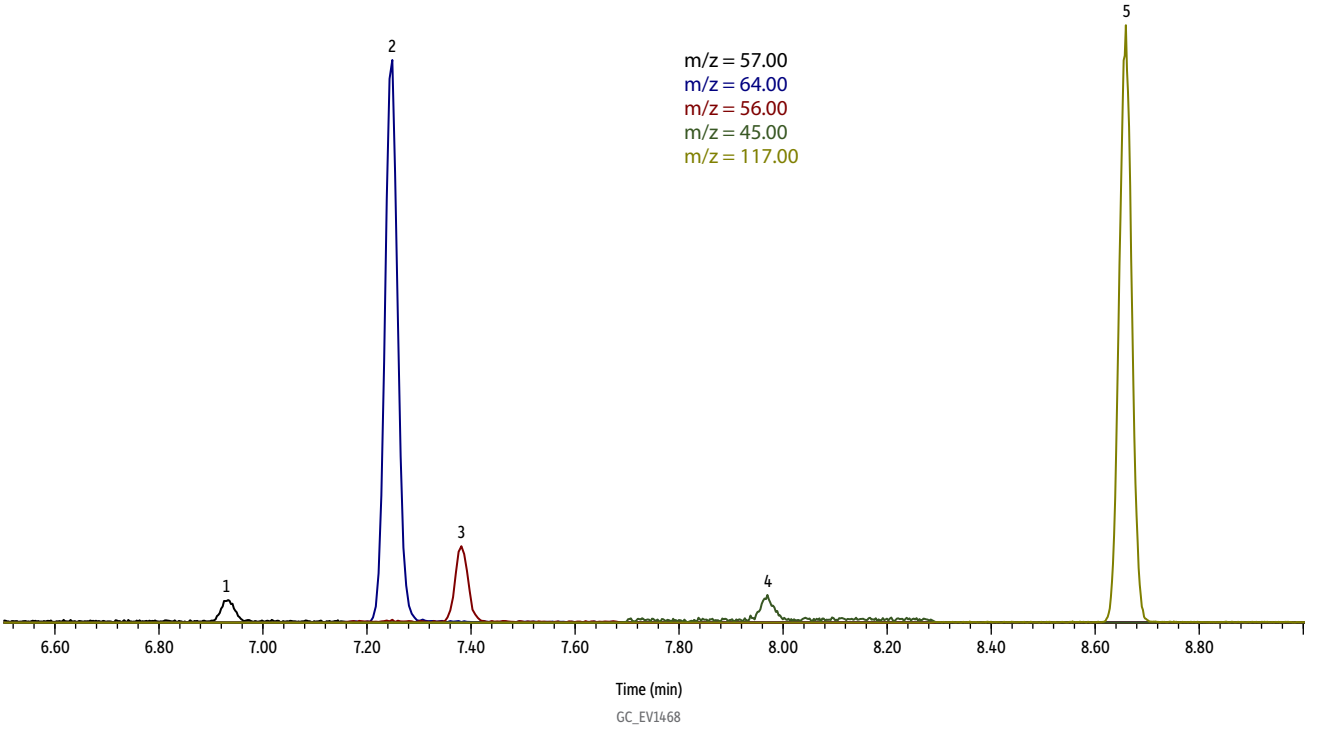
EPA Method 541 UCMR4 Standard at Method Reporting Limit on Stabilwax (SIM)



GC_EV1468

Peaks	t_R (min)	Conc. (µg/mL)
1. 2-Propen-1-ol	6.94	0.013
2. 1-Butanol-d10 (SS)	7.25	0.25
3. 1-Butanol	7.38	0.050
4. 2-Methoxyethanol	7.97	0.010
5. Chlorobenzene-d5 (IS)	8.66	0.25

Column Stabilwax, 30 m, 0.25 mm ID, 0.50 µm (cat.# 10638)
Sample Method 541 UCMR4 standard (cat.# 572263)
Method 541 UCMR4 internal standard (cat.# 572268)
Method 541 UCMR4 surrogate standard (cat.# 572267)
Diluent: Dichloromethane
Injection
Inj. Vol.: 1 µL pulsed splitless (hold 0.50 min)
Liner: Topaz 4 mm ID single taper w/wool (cat.# 23303)
Inj. Temp.: 200 °C
Pulse Pressure: 10 psi (68.9kPa)
Pulse Time: 0.55 min
Purge Flow: 100 mL/min
Oven
Oven Temp.: 30 °C (hold 0.5 min) to 110 °C at 10 °C/min to 200 °C at 25 °C/min (hold 6 min)
Carrier Gas He, constant flow
Flow Rate: 0.9 mL/min
Detector MS
Mode: SIM
SIM Program:

Group	Start Time (min)	Ion(s) (m/z)	Dwell (ms)
1	6.0	39, 55, 57, 58	25
2	7.2	41, 43, 46, 50, 55, 56, 63, 64	25
3	7.7	45, 47, 58, 76	25
4	8.3	76, 117, 119	25

Transfer Line Temp.: 200 °C
Analyzer Type: Quadrupole
Source Type: Stainless Steel
Drawout Plate: 6 mm ID
Source Temp.: 230 °C
Quad Temp.: 150 °C
Solvent Delay Time: 6.0 min
Tune Type: BFB
Ionization Mode: EI
Instrument HP6890 GC & 5973 MSD
Notes The 30 m x 0.25 mm ID x 0.5 µm Stabiliwax column offers equivalent selectivity to the ZB-Wax Plus chromatogram published in EPA Method 541, but with a significantly faster analysis time under the same GC conditions. Chlorobenzene elutes at 13.14 min in the method and at 8.66 minutes on the Stabiliwax column.