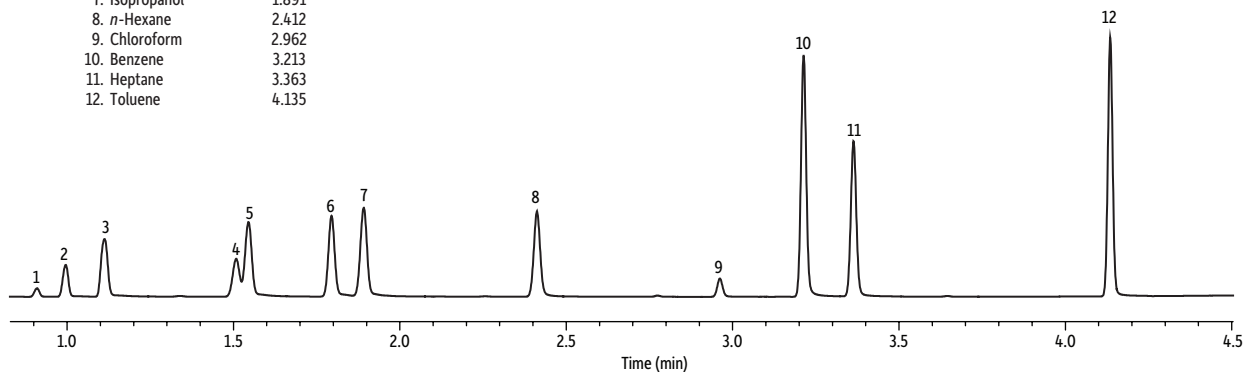


Residual Solvents in Cannabis Concentrates on Rxi®-624Sil MS by Headspace–Full Evaporation Technique (HS-FET)

Peaks	tr (min)
1. Isobutane	0.910
2. Butane	0.996
3. Methanol	1.112
4. Pentane	1.508
5. Ethanol	1.545
6. Acetone	1.795
7. Isopropanol	1.891
8. <i>n</i> -Hexane	2.412
9. Chloroform	2.962
10. Benzene	3.213
11. Heptane	3.363
12. Toluene	4.135



GC_FS0517

Column Rxi®-624Sil MS, 30 m, 0.25 mm ID, 1.40 µm (cat.# 13868)
Sample Residual solvent mix
Diluent: Dimethyl sulfoxide (DMSO)
Conc.: 500 ppm (For the HS-FET technique, 10 µL of a 1,000 µg/mL standard was placed into a 20 mL headspace vial to represent a 500 ppm sample concentration, assuming a 20 mg sample.)

Injection headspace-loop split (split ratio 10:1)
Liner: Premium 1.0 mm ID straight inlet liner (cat.# 23333.1)

Headspace-Loop

Instrument: Tekmar HT3
Inj. Time: 1.0 min
Transfer Line Temp.: 160 °C
Valve Oven Temp.: 160 °C
Needle Temp.: 140 °C
Sample Temp.: 140 °C
Platen temp
equil. time: 1.0 min
Sample Equil. Time: 30.0 min
Vial Pressure: 20 psi
Pressurize Time: 5.0 min
Loop Pressure: 15 psi
Loop Fill Time: 2.0 min

Oven

Oven Temp.: 35 °C (hold 1.5 min) to 300 °C at 30 °C/min (hold 2.0 min)

Carrier Gas He, constant flow

Linear Velocity: 80 cm/sec

Detector FID @ 250 °C

Make-up Gas

Flow Rate: 45 mL/min

Make-up Gas Type: N₂

Hydrogen flow: 40 mL/min

Air flow: 450 mL/min

Data Rate: 20 Hz

Instrument Agilent/HP6890 GC

Notes

The butane used for standard preparation was a mixture of butane and isobutane in an unknown ratio. The concentrations of butane and isobutane should be considered approximate, but do not exceed 50 ppm for either component.