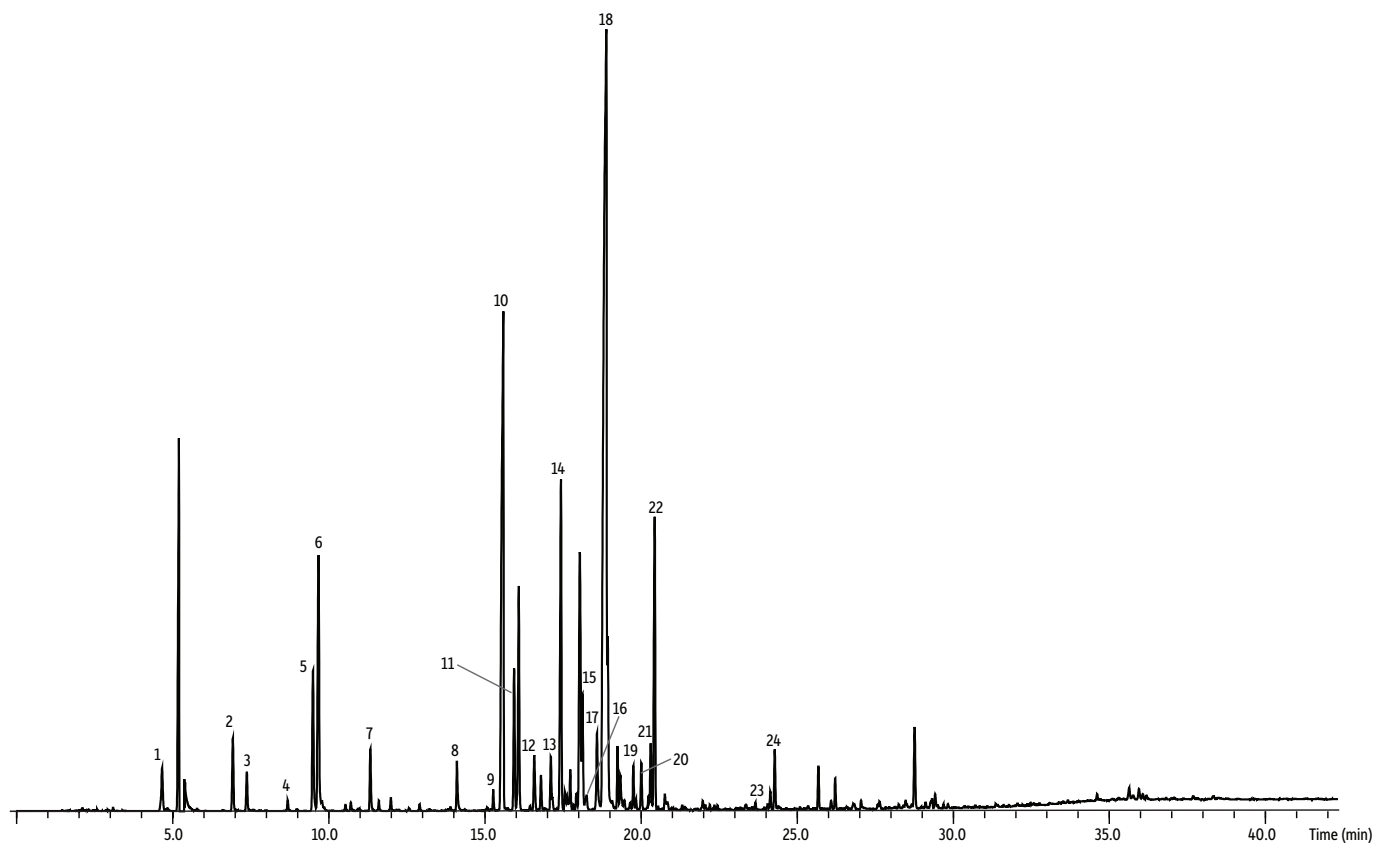


Commercial Spearmint Oil on Stabilwax®-MS

Peaks	ts (min)	Peaks	ts (min)
1. α -Pinene	4.66	13. Linalool	17.11
2. β -Pinene	6.92	14. Menthyl acetate	17.44
3. Sabinene	7.37	15. 4-Terpineol	18.12
4. Myrcene	8.68	16. Dihydrocarvone	18.26
5. Limonene	9.49	17. Neoisomenthol	18.59
6. 1,8-Cineole	9.67	18. Menthol*	18.88
7. Cymene	11.33	19. Terpineol	19.76
8. 3-Octanol	14.10	20. Germacrene D	20.01
9. 1-Octen-3-ol	15.26	21. Piperitone	20.31
10. Menthone	15.59	22. Carvone	20.44
11. Menthofuran	15.94	23. Jasmine	23.66
12. β -Bourbonene	16.58	24. Caryophyllene oxide	24.28

* High signal suggests adulteration or misbranding.



GC_GN1169

Column Stabilwax®-MS, 30 m, 0.25 mm ID, 0.25 μ m (cat.# 10673)
Sample Commercial spearmint oil
Conc.: Neat
Injection
Inj. Vol.: 1 μ L split (split ratio 150:1)
Liner: Premium 3.5 mm ID single taper w/wool (cat.# 23322.5)
Inj. Temp.: 250 °C
Oven
Oven Temp.: 45 °C (hold 5 min) to 250 °C at 7 °C/min (hold 10 min)
Carrier Gas He, constant linear velocity
Linear Velocity: 36 cm/sec
Detector MS
Mode: Scan
Scan Program:

Group	Start Time (min)	Scan Range (amu)	Scan Rate (scans/sec)
1	0	40-550	3.3

Transfer Line
Temp.: 260 °C
Analyzer Type: Quadrupole
Source Temp.: 250 °C
Electron Energy: 70 eV
Ionization Mode: EI
Instrument Shimadzu 2010 GC & QP2010+ MS