



## *Essential Validation Services*



### Sample:

---

Client: | Be Kind Botanicals  
Sample: | Spearmint (Mentha Spicata)  
Batch # | MS1706  
CAS Number | 8008-79-5  
Type: | Essential Oil

---

### Conclusion:

- No adulterants, diluents, or contaminants were detected via this method.
- This oil meets the expected profile for genuine essential oil of Spearmint (Mentha Spicata).



X 

Validated By:

Essential Validation Services

747 SW 2nd Ave, Gainesville, FL 32601

Phone: 317-361-5044 E-mail: [Adam@essentialvalidationservices.com](mailto:Adam@essentialvalidationservices.com)

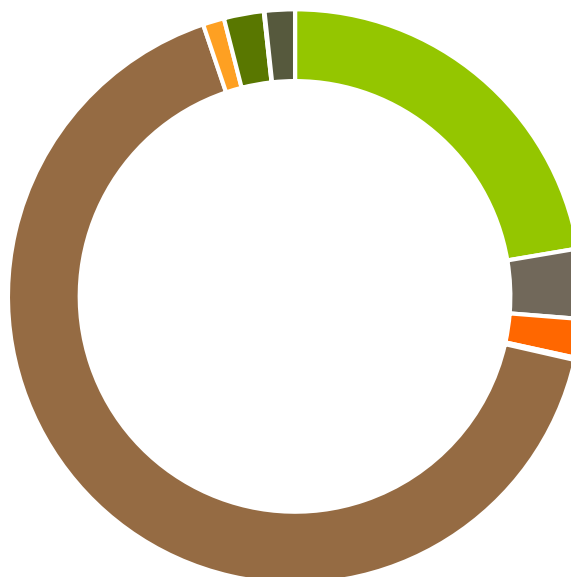
### Summary of Analyses

---

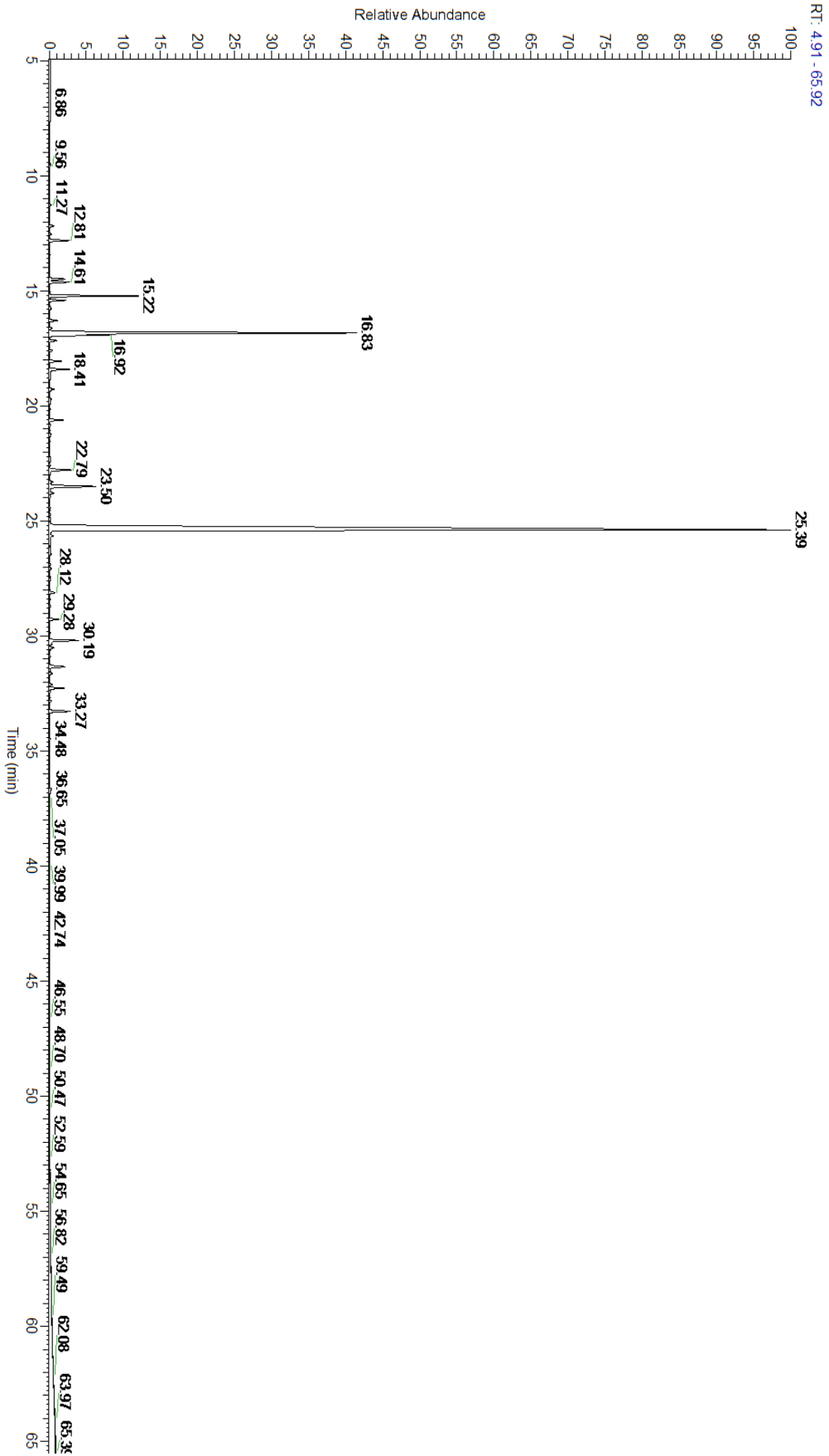
A fresh sample of Spearmint (Mentha Spicata) Essential Oil (10 uL in .5to.5 mL Hexane + ETOH) was prepared and analyzed via split injection GC/EI-MS.

Main Compounds	Percentages
Carvone	63.57%
Limonene	14.70%
Myrcene	3.58%
cis-Dihydrocarvone	2.30%
1,8-Cineole	2.25%
beta-Bourbonene (Co-Eluting)	1.33%
Terpinen-4-ol	1.01%
Germacrene D	0.91%
trans-Sabinene hydrate	0.89%
beta-Pinene	0.86%
alpha-Pinene	0.80%
beta-Caryophyllene	0.77%
Sabinene	0.63%

Monoterpenes	Sesquiterpenes	Monoterpenols	Sesquiterpenols	Ketones
22.33%	3.93%	2.17%	0.13%	66.25%
Esters	Ethers	Aldehydes	Phenols	Other
1.20%	2.25%	0.04%	0.00%	1.70%



- Monoterpenes
- Sesquiterpenes
- Monoterpenols
- Sesquiterpenols
- Ketones
- Esters
- Ethers
- Phenols
- Other



Total Percentage		99.24%			
Peak Number	RT	Area %	Compound Name	RI	Chemical Family
1	6.86	0.02%	Methyl 2-methylbutyrate	764.00	Aliphatic Ester
2	11.27	0.05%	2,5-Diethyltetrahydrofuran	895.30	Furan
3	12.18	0.17%	Hashishene	922.00	Monoterpene
4	12.54	0.06%	alpha-Thujene	927.80	Monoterpene
5	12.81	0.80%	alpha-Pinene	936.10	Monoterpene
6	13.43	0.01%	Camphene	950.30	Monoterpene
7	14.49	0.63%	Sabinene	973.00	Monoterpene
8	14.61	0.86%	beta-Pinene	974.00	Monoterpene
9	15.03	0.01%	Octan-3-one	981.00	Aliphatic Ketone
10	15.22	3.58%	Myrcene	989.20	Monoterpene
11	15.41	0.62%	3-Octanol	992.00	Aliphatic Alcohol
12	16.29	0.34%	alpha-Terpinene	1014.00	Monoterpene
13	16.62	0.09%	para-Cymene	1024.30	Monoterpene
14	16.83	14.70%	Limonene	1029.50	Monoterpene
15	16.92	2.25%	1,8-Cineole	1031.80	Monoterpene Ether
16	17.17	0.27%	(Z)-beta-Ocimene	1037.80	Monoterpene
17	17.60	0.12%	(E)-beta-Ocimene	1047.70	Monoterpene
18	18.06	0.52%	gamma-Terpinene	1054.00	Monoterpene
19	18.41	0.89%	trans-Sabinene hydrate	1072.00	Monoterpenol
20	18.58	0.02%	1-Octanol	1075.14	Aliphatic Alcohol
21	19.28	0.18%	Terpinolene	1092.10	Monoterpene
22	19.70	0.09%	Linalool	1099.00	Monoterpenol
23	19.85	0.04%	Nonanal	1104.00	Aliphatic Aldehyde
24	20.14	0.01%	1-Octenyl-3 acetate	1107.00	Monoterpene Ester
25	20.61	0.57%	Octan-3-yl acetate	1124.00	Aliphatic Ester
26	22.29	0.04%	Isomenthone	1164.33	Monoterpene Ketone
27	22.39	0.04%	Borneol	1168.71	Monoterpenol
28	22.57	0.01%	Menthol	1177.40	Monoterpenol
29	22.79	1.01%	Terpinen-4-ol	1180.57	Monoterpenol
30	23.30	0.13%	alpha-Terpineol	1191.71	Monoterpenol
31	23.50	2.30%	cis-Dihydrocarvone	1197.57	Monoterpene Ketone
32	23.79	0.18%	trans-Dihydrocarvone	1203.83	Monoterpene Ketone
33	25.39	63.57%	Carvone	1248.14	Monoterpene Ketone
34	25.65	0.15%	Piperitone	1258.50	Monoterpene Ketone
35	27.08	0.05%	Edulan II, dihydro-	1305.20	Edulan
36	28.12	0.23%	Dihydrocarvyl acetate	1330.50	Monoterpene Ester
37	29.28	0.37%	cis-Carvyl acetate	1368.00	Monoterpene Ester
38	30.19	1.33%	beta-Bourbonene	1388.70	Sesquiterpene
39	30.21	Co-Eluting	cis-Jasmone	1388.80	Jasmonate
40	30.35	0.08%	beta-Elemene	1389.20	Sesquiterpene
41	30.50	0.20%	trans-Jasmone	1392.00	Jasmonate
42	30.88	0.02%	Isocaryophyllene	1403.65	Sesquiterpene
43	31.34	0.77%	beta-Caryophyllene	1427.14	Sesquiterpene

