



Essential Validation Services



Sample:

Client: | Nature's Fusions
Sample: | Peppermint (Mentha x piperita)
Batch # | R119865-05
CAS Number | 8006-90-4
Type: | Essential Oil

Conclusion:

- No adulterants, diluents, or contaminants were detected via this method.



X 

Validated By:

Essential Validation Services

747 SW 2nd Ave, Gainesville, FL 32601

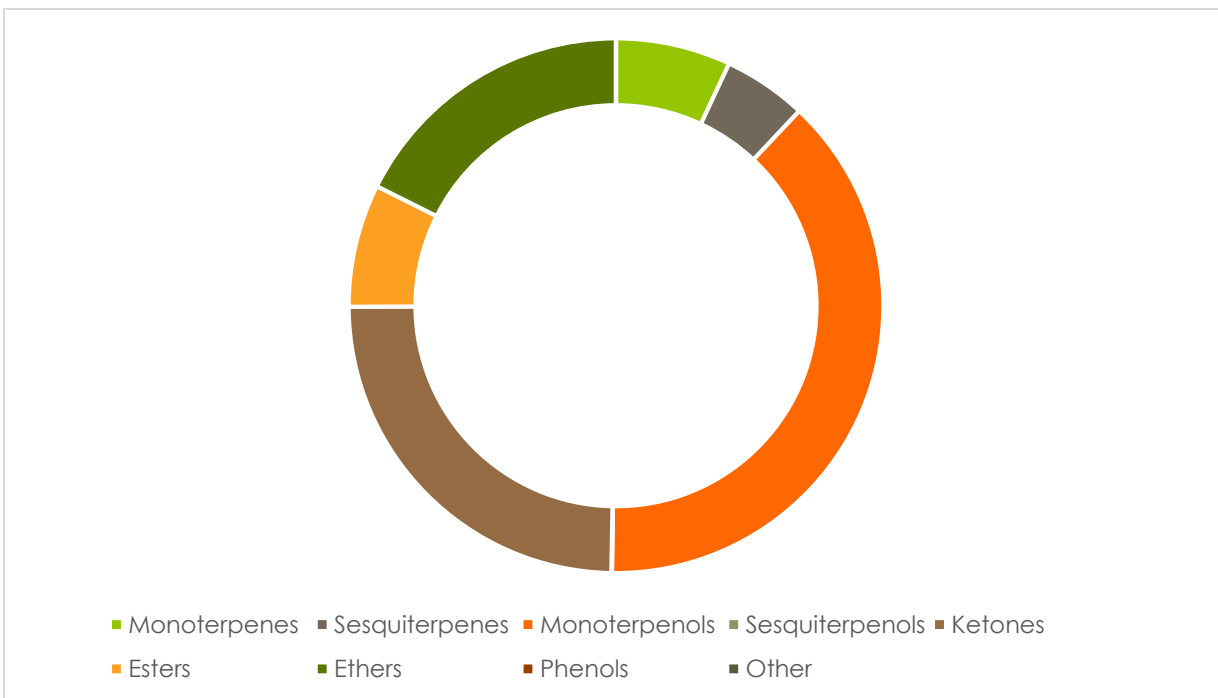
Phone: 317-361-5044 E-mail: Adam@essentialvalidationservices.com

Summary of Analyses

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

Main Compounds	Percentages
Menthol	37.02%
Menthone	23.40%
Menthofuran	10.56%
Menthyl acetate	7.19%
1,8-Cineole	6.96%
beta-Caryophyllene	4.19%
Limonene	3.16%
beta-Pinene	1.24%
alpha-Pinene	1.09%
Pulegone	1.08%
para-Cymene	0.51%

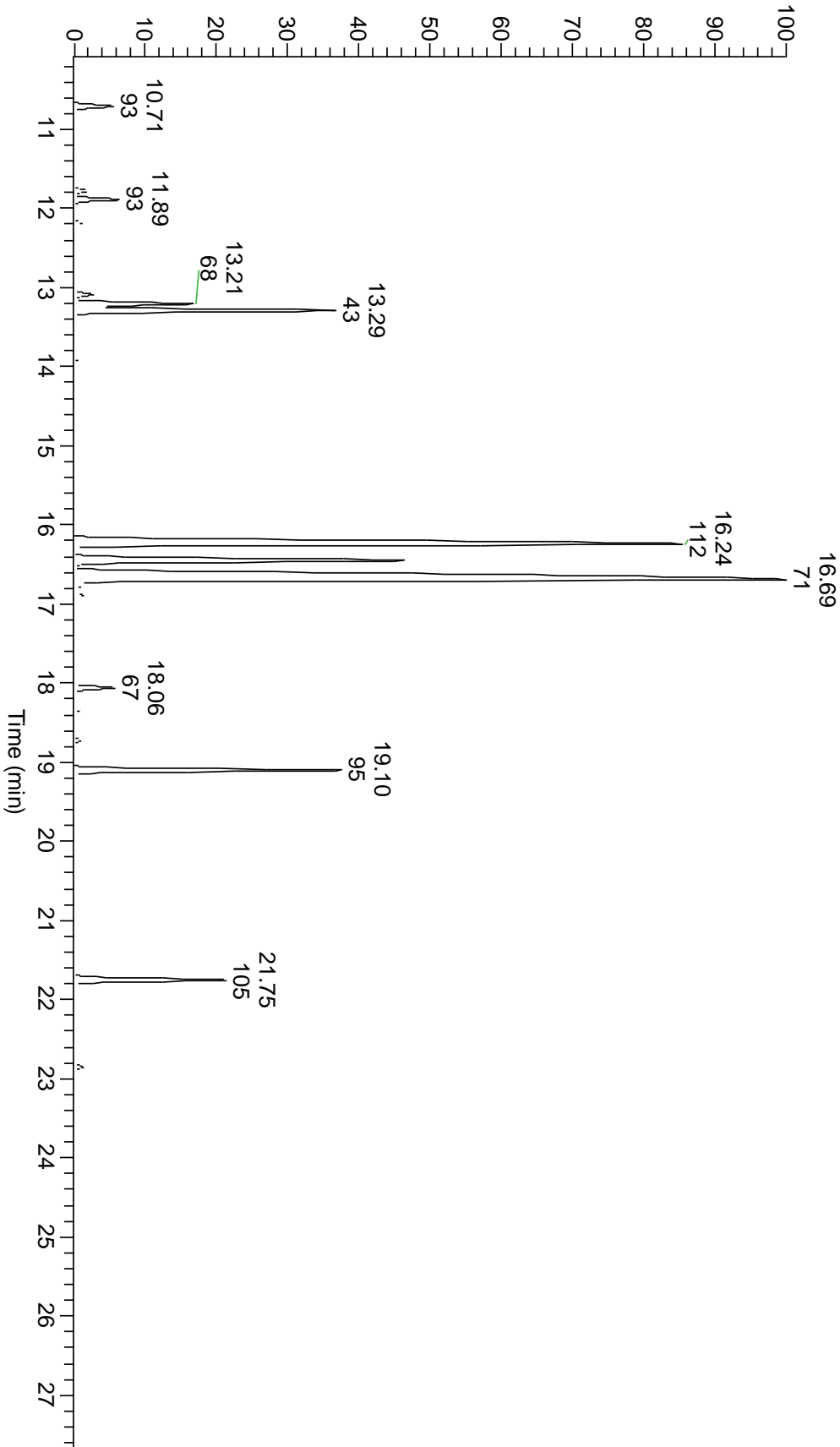
Monoterpenes	Sesquiterpenes	Monoterpenols	Sesquiterpenols	Ketones
6.95%	5.06%	38.19%	0.04%	24.64%
Esters	Ethers	Aldehydes	Phenols	Other
7.43%	17.61%	0.00%	0.00%	0.00%



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RT: 10.07 - 27.92



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Total Percentage	99.99%				
Peak Number	RT	Area %	Compound Name	RI	Chemical Family
1	9.65	0.07%	2,5-Diethyltetrahydrofuran	895.30	Furans
2	10.71	1.09%	alpha-Pinene	936.10	Monoterpenes
3	11.13	0.06%	Camphene	953.30	Monoterpenes
4	11.78	0.36%	Sabinene	973.00	Monoterpenes
5	11.89	1.24%	beta-Pinene	977.70	Monoterpenes
6	12.18	0.20%	Myrcene	989.20	Monoterpenes
7	12.27	0.10%	3-Octanol	993.20	Monoterpenols
8	12.57	0.06%	alpha-Phellandrene	1004.10	Monoterpenes
9	12.89	0.12%	alpha-Terpinene	1017.10	Monoterpenes
10	13.09	0.51%	para-Cymene	1024.30	Monoterpenes
11	13.21	3.16%	Limonene	1029.50	Monoterpenes
12	13.21	Co-Eluting	beta-Phellandrene	1030.00	Monoterpenes
13	13.29	6.96%	1,8-Cineole	1031.80	Ethers
14	13.94	0.10%	gamma-Terpinene	1063.71	Monoterpenes
15	14.15	0.08%	cis-Sabinene hydrate	1066.50	Monoterpenols
16	14.66	0.05%	Terpinolene	1089.43	Monoterpenes
17	14.85	0.08%	Linalool	1099.00	Monoterpenols
18	16.02	0.17%	Isopulegol	1155.00	Monoterpenols
19	16.24	23.40%	Menthone	1159.43	Ketones
20	16.45	10.56%	Menthofuran	1164.00	Ethers
21	16.45	Co-Eluting	Isomenthone	1164.33	Ketones
22	16.69	37.02%	Menthol	1177.40	Monoterpenols
23	16.69	Co-Eluting	Neomenthol	1165.00	Monoterpenols
24	16.76	0.26%	Terpinen-4-ol	1180.57	Monoterpenols
25	16.88	0.26%	alpha-Terpineol	1191.71	Monoterpenols
26	17.01	0.22%	Isomenthol	1193.00	Monoterpenols
27	18.06	1.08%	Pulegone	1244.43	Ketones
28	18.37	0.16%	Piperitone	1259.60	Ketones
29	18.72	0.16%	Neomenthyl acetate	1275.00	Esters
30	19.10	7.19%	Menthyl acetate	1297.00	Esters
31	19.44	0.08%	Isomenthyl acetate	1306.00	Esters
32	20.86	0.04%	alpha-Copaene	1379.00	Sesquiterpenes
33	21.07	0.07%	beta-Elemene	1388.30	Sesquiterpenes
34	21.11	0.04%	beta-Bourbonene	1388.70	Sesquiterpenes
35	21.75	4.19%	beta-Caryophyllene	1427.14	Sesquiterpenes
36	21.90	0.08%	beta-Copaene	1445.00	Sesquiterpenes
37	22.13	0.11%	(Z)-beta-Farnesene	1453.40	Sesquiterpenes
38	22.37	0.14%	allo-Aromadendrene	1471.00	Sesquiterpenes
39	22.85	0.25%	Germacrene D	1484.71	Sesquiterpenes
40	23.11	0.09%	Bicyclogermacrene	1495.71	Sesquiterpenes
41	23.51	0.05%	gamma-Cadinene	1515.29	Sesquiterpenes
42	24.68	0.09%	Caryophyllene oxide	1594.86	Ethers

43	24.82	0.04% Viridiflorol	1596.00 Sesquiterpenols
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