



Spearmint

Mentha spicata

Batch No. US-59048

United States

Monoterpenes 18.59%

limonene	11.72
myrcene	2.88
β pinene	0.78
α pinene	0.66
sabinene	0.52
γ terpinene	0.50
para cymene	0.38
2-carene	0.28
(Z) β ocimene	0.18
hashishene	0.15
terpinolene	0.15
pseudolimonene	0.10
(E) β ocimene	0.10
α thujene	0.07
alloocimene	0.04
para-cymenene	0.03
camphene	0.02
α phellandrene	0.02
thuja-2,4(10)-diene	0.01

Ketones 62.26%

carvone	57.80
cis-dihydrocarvone	2.30
neo-dihydrocarvone	1.37
trans-dihydrocarvone	0.26
menthone	0.25
piperitone	0.19
isomenthone	0.09

Esters 1.91%

octan-3-yl acetate	0.75
trans-carvyl acetate	0.47
dihydro carveol acetate	0.45
menthyl acetate	0.10
(Z) 3-hexenyl isovalerate	0.05
1-octenyl-3 acetate	0.03
myrtenyl acetate	0.03
methyl salicylate	0.02
octylacetate	0.01

Sesquiterpenes 5.53%

β bourbonene	1.90
cis-caryophyllene	1.30
(E) β farnesene	0.89
germacrene d	0.76
β copaene	0.26
β elemene	0.13
6,9-guaiadiene	0.12
α copaene	0.07
β cadinene	0.06
isocaryophyllene	0.04
cis-muurolo-3,5-diene	0.03
α guaiene	0.02

Sesquiterpenols 0.32%

viridiflorol	0.32
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Monoterpenols 5.05%

terpinen-4-ol	1.57
trans-sabinene hydrate	1.07
menthol	0.56
trans-carveol	0.53
cis-carveol	0.34
α terpineol	0.33
linalool	0.28
δ terpineol	0.18
cis-para-menth-2-en-1-ol	0.07
para-menth-1,5-dien-8-ol	0.06
trans-pinocarveol	0.04
santolina alcohol	0.02

Ethers 2.55%

1,8 cineole	2.25
trans-carvone oxide	0.10
trans-limonene oxide	0.07
caryophyllene oxide	0.07
cis-carvone oxide	0.05
cis-limonene oxide	0.01

Phenols 0.32%

eugenol	0.05
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Other 2.48%

octanol 3	1.51
cis-jasmone	0.41
2,5-Diethyltetrahydrofuran	0.13
cis-hex-3-en-1-ol	0.08
2-Methylbutyl 2-methylbutyrate	0.06
(E) 2-hexenal	0.05
1-hexanol	0.05
1-octanol	0.05
(E) 2-hexenol	0.04
octan-3-one	0.04
2-methylbutyric acid	0.02
benzaldehyde	0.02
1-octen-3-ol	0.02

Raw Material: Spearmint

Taxonomy: *Mentha spicata*

Production Steam Dist., USA, leaves

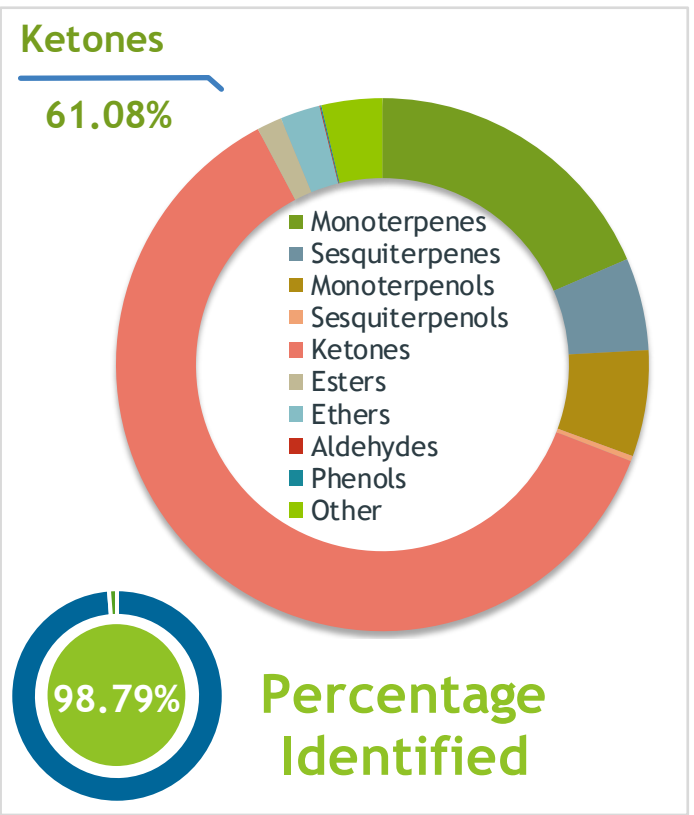
Client  **Source** 

Spearmint (Mentha spicata)
US-59048

Sample Spearmint (Mentha spicata)
Batch #:..... US-59048
Type:..... Essential Oil
CAS Number:... 8008-79-5
Nature's Gift

Client  **Website** 

Primary
57.80% | **Carvone**
11.72% | **Limonene**
2.88% | **Myrcene**



Result 

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)
Internal Number: | EVS-3717


Essential Validation Services
747 SW 2nd Ave IMB 12 Suite 306
Gainesville, FL 32601
317.361.5044 | <https://essentialvalidationservices.com/>
adam@essentialvalidationservices.com


Monoterpenes	18.44%	18.44%
Sesquiterpenes	5.58%	5.58%
Monoterpenols	6.42%	6.42%
Sesquiterpenols	0.32%	0.32%
Ketones	61.08%	61.08%
Esters	1.52%	1.52%
Ethers	2.40%	2.40%
Aldehydes	0.05%	0.05%
Phenols	0.07%	0.07%
Other	3.67%	3.67%

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Total Percentage		98.79%		
Number	RT	Area %	Compound Name	Chemical Family
1	5.74	0.02%	2-Methylbutyric acid	Aliphatic Acid
2	5.85	0.05%	(E)-2-Hexenal	Aliphatic Aldehyde
3	5.91	0.08%	cis-Hex-3-en-1-ol	Aliphatic Alcohol
4	6.23	0.04%	(E)-2-Hexenol	Aliphatic Alcohol
5	6.35	0.05%	1-Hexanol	Aliphatic Alcohol
6	7.22	0.13%	2,5-Diethyltetrahydrofuran	Furan
7	8.06	0.15%	Hashishene	Monoterpene
8	8.31	0.07%	alpha-Thujene	Monoterpene
9	8.57	0.66%	alpha-Pinene	Monoterpene
10	9.19	0.02%	Camphene	Monoterpene
11	9.37	0.01%	Thuja-2,4(10)-diene	Monoterpene
12	9.67	0.02%	Benzaldehyde	Simple Phenolic
13	10.15	0.52%	Sabinene	Monoterpene
14	10.32	0.78%	beta-Pinene	Monoterpene
15	10.51	0.02%	1-Octen-3-ol	Aliphatic Alcohol
16	10.72	0.04%	Octan-3-one	Aliphatic Ketone
17	10.91	2.88%	Myrcene	Monoterpene
18	11.23	1.51%	3-Octanol	Aliphatic Alcohol
19	11.47	0.10%	Pseudolimonene	Monoterpene
20	11.57	0.02%	alpha-Phellandrene	Monoterpene
21	12.05	0.28%	2-Carene	Monoterpene
22	12.38	0.38%	para-Cymene	Monoterpene
23	12.62	11.72%	Limonene	Monoterpene
24	12.70	2.25%	1,8-Cineole	Monoterpene Ether
25	12.97	0.18%	(Z)-beta-Ocimene	Monoterpene
26	13.43	0.10%	(E)-beta-Ocimene	Monoterpene
27	13.77	0.02%	Santolina alcohol	Monoterpenol
28	13.91	0.50%	gamma-Terpinene	Monoterpene
29	14.43	1.07%	trans-Sabinene hydrate	Monoterpenol
30	14.56	0.05%	1-Octanol	Aliphatic Alcohol
31	15.15	0.15%	Terpinolene	Monoterpene
32	15.35	0.03%	para-Cymenene	Monoterpene
33	15.85	0.28%	Linalool	Monoterpenol
34	16.04	0.06%	2-Methylbutyl 2-methylbutyrate	Aliphatic Ester
35	16.29	0.03%	1-Octenyl-3 acetate	Monoterpene Ester

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Number	RT	Area %	Compound Name	Chemical Family
36	16.838	0.75%	Octan-3-yl acetate	Monoterpene Ester
37	16.92	0.07%	cis-para-Menth-2-en-1-ol	Monoterpenol
38	17.18	0.04%	Alloocimene	Monoterpene
39	17.31	0.01%	cis-Limonene oxide	Monoterpene Ether
40	17.51	0.07%	trans-Limonene oxide	Monoterpene Ether
41	17.63	0.04%	trans-Pinocarveol	Monoterpenol
42	18.36	0.25%	Menthone	Monoterpene Ketone
43	18.76	0.09%	Isomenthone	Monoterpene Ketone
44	18.93	0.06%	para-Mentha-1,5-dien-8-ol	Monoterpenol
45	19.04	0.18%	delta-Terpineol	Monoterpenol
46	19.42	0.56%	Menthol	Monoterpenol
47	19.51	1.57%	Terpinen-4-ol	Monoterpenol
48	20.01	0.02%	Methyl salicylate	Phenolic Ester
49	20.21	0.33%	alpha-Terpineol	Monoterpenol
50	20.31	2.30%	cis-Dihydrocarvone	Monoterpene Ketone
51	20.38	1.37%	neo-Dihydrocarveol	Monoterpenol
52	20.58	0.26%	trans-Dihydrocarvone	Monoterpene Ketone
53	21.03	0.01%	Octyl acetate	Aliphatic Ester
54	21.40	0.53%	trans-Carveol	Monoterpenol
55	21.93	0.05%	cis-3-Hexenyl isovalerate	Aliphatic Ester
56	22.08	0.34%	cis-Carveol	Monoterpenol
57	22.60	57.80%	Carvone	Monoterpene Ketone
58	22.87	0.19%	Piperitone	Monoterpene Ketone
59	23.29	0.05%	18.42 Carvone oxide<cis->	Monoterpene Ketone
60	23.86	0.10%	19.02 Carvone oxide<trans->	Monoterpene Ketone
61	24.56	0.10%	Menthyl acetate	Monoterpene Ester
62	26.07	0.45%	20.48 Dihydro carveol acetate	0.00
63	26.90	0.03%	Myrtenyl acetate	Monoterpene Ester
64	27.18	0.05%	Eugenol	Phenylpropanoid
65	27.54	0.47%	trans-Caryyl acetate	Monoterpene Ester
66	28.22	0.07%	alpha-Copaene	Sesquiterpene
67	28.55	1.90%	beta-Bourbonene	Sesquiterpene
68	28.84	0.13%	beta-Elemene	Sesquiterpene
69	28.91	0.41%	cis-Jasmone	Jasmonate
70	29.42	0.04%	Isocaryophyllene	Sesquiterpene
71	30.03	1.30%	cis-Caryophyllene	Sesquiterpene

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72	30.47	0.26%	beta-Copaene	Sesquiterpene
73	31.56	0.89%	(E)-beta-Farnesene	Sesquiterpene
74	31.68	0.02%	alpha-Guaiene	Sesquiterpene
75	31.77	0.03%	cis-Muurola-3,5-diene	Sesquiterpene
76	32.03	0.12%	6,9-Guaiadiene	Sesquiterpene
77	32.56	0.76%	Germacrene D	Sesquiterpene
78	34.11	0.06%	beta-Cadinene	Sesquiterpene
79	36.48	0.07%	Caryophyllene oxide	Sesquiterpene Ether
80	36.97	0.32%	Viridiflorol	Sesquiterpenol

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