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Balancing Body, Mind and Spirit with Pure Essential Oils

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## Spearmint

*Mentha spicata*

Batch No. US-59313

United States

### Monoterpenes 16.1%

limonene	10.55
myrcene	2.07
$\beta$ pinene	0.65
$\alpha$ pinene	0.57
$\gamma$ terpinene	0.53
sabinene	0.45
$\alpha$ terpinene	0.31
para cymene	0.23
(Z) $\beta$ ocimene	0.16
terpinolene	0.15
hashishene	0.12
(E) $\beta$ ocimene	0.10
alloocimene	0.06
$\alpha$ thujene	0.06
para-cymenene	0.03
pseudolimonene	0.03
camphene	0.02
thuja-2,4(10)-diene	0.01

### Monoterpenols 3.73%

terpinen-4-ol	1.86
trans-sabinene hydrate	0.95
cis-carveol	0.49
menthol	0.18
trans-para-menth-2-en-1-ol	0.07
trans-pinocarveol	0.05
para-menth-1,5-dien-8-ol	0.04
trans-verbenol	0.04
isomenthol	0.03
trans-ascaridol glycol	0.02

### Ethers 2.22%

1,8 cineole	1.94
trans-carvone oxide	0.09
trans-limonene oxide	0.06
cis-carvone oxide	0.05
$\beta$ pinene oxide	0.02
cis-limonene oxide	0.01
caryophyllene oxide	0.05

### Ketones 67.34%

carvone	62.84
cis-dihydrocarvone	2.29
neo-dihydrocarvone	1.15
trans-dihydrocarvone	0.41
menthone	0.22
piperitone	0.19
isomenthone	0.08
isopiperitenone	0.06
octan-3-one	0.03
pulegone	0.03
garanylaceton	0.03
piperitenone	0.01

### Esters 1.71%

octan-3-yl acetate	0.65
cis-carvyl acetate	0.44
dihydrocarvyl acetate	0.41
(Z) 3-hexenyl isovalerate	0.03
methyl salicylate	0.03
2-methylbutyl 2-methylbutyrate	0.03
2-phenylethyl 3 methylbutyrate	0.03
1-octenyl-3 acetate	0.02
myrtenyl acetate	0.02
trans-carvyl acetate	0.02
neo-dihydro carveol acetate	0.01
octylacetate	0.01
trans-pinocarvyl acetate	0.01

### Aldehydes 0.06%

(E) 2-hexenal	0.03
benzaldehyde	0.01
nonanal	0.01
decanal	0.01

### Sesquiterpenes 5.3%

$\beta$ bourbonene	1.83
$\beta$ caryophyllene	1.24
(E) $\beta$ farnesene	0.70
germacrene d	0.67
$\beta$ copaene	0.27
$\beta$ elemene	0.13
dauca-5,8 diene	0.13
$\alpha$ copaene	0.07
$\alpha$ humulene	0.07
$\delta$ cadinene	0.06
$\beta$ gurjunene	0.03
isocaryophyllene	0.02
$\beta$ funebrene	0.02
bicyclogermacrene	0.02
$\delta$ elemene	0.01
$\gamma$ muurolene	0.01
$\alpha$ muurolene	0.01
$\gamma$ cadinene	0.01

### Sesquiterpenols 0.26%

viridiflorol	0.26
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### Phenols 0.07%

eugenol	0.07
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### Other 2.21%

3-octanol	1.36
cis-jasmone	0.38
dihydro-edulan II	0.16
2,5-Diethyltetrahydrofuran	0.11
cis-hex-3-en-1-ol	0.05
1-octanol	0.04
(E) 2-hexenal	0.03
1-hexanol	0.03
1-octen-3-ol	0.03
2-acetoxyhexane	0.02

Client



Source



Spearmint (*Mentha spicata*)  
US-59313

Sample

Spearmint (*Mentha spicata*)

Batch #:..... US-59313

Type:..... Essential Oil

CAS Number:... 8008-79-5

Nature's Gift

Client



Website



Primary

**62.84%**

Carvone

**10.55%**

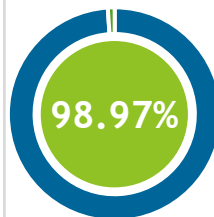
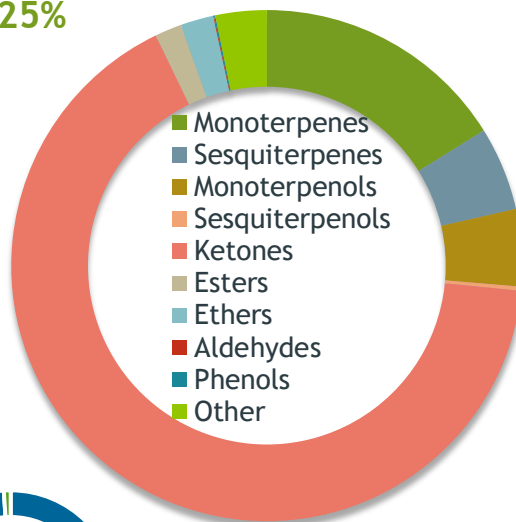
Limonene

**2.29%**

cis-Dihydrocarvone

**Ketones**

66.25%



**Percentage Identified**

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-5477



**Essential Validation Services**

747 SW 2nd Ave IMB 12 Suite 306  
Gainesville, FL 32601

317.361.5044 |  
<https://essentialvalidationservices.com/>

*Alan Christen*

Monoterpenes	16.13	16.13%
Sesquiterpenes	5	5.30%
Monoterpenols	4	4.88%
Sesquiterpenols		0.26%
Ketones	66.25%	66.25%
Esters		1.69%
Ethers		2.09%
Aldehydes		0.05%
Phenols		0.08%
Other		3.24%

- Essential Oil testing is performed by using qualitative GC-MS. Method: SOP.T.01 Client Method  
 - This report may not be published without the consent of Essential Validation Services.  
 - Chromatograph image may be requested  
 - This report is valid for 1 year from the analyzed date

Client



Source

Spearmint (*Mentha spicata*)

US-59313

Total Percentage		98.97%		
Number	RT	Area %	Compound Name	Chemical Family
1	5.26	0.02%	2-Methylbutyric acid	Aliphatic Acid
2	5.38	0.03%	(E)-2-Hexenal	Aliphatic Aldehyde
3	5.44	0.05%	cis-Hex-3-en-1-ol	Aliphatic Alcohol
4	5.75	0.03%	(E)-2-Hexenol	Aliphatic Alcohol
5	5.86	0.03%	1-Hexanol	Aliphatic Alcohol
6	6.65	0.11%	2,5-Diethyltetrahydrofuran	Furan
7	7.43	0.12%	Hashishene	Monoterpene
8	7.68	0.06%	alpha-Thujene	Monoterpene
9	7.92	0.57%	alpha-Pinene	Monoterpene
10	8.52	0.02%	Camphene	Monoterpene
11	8.69	0.01%	Thuja-2,4(10)-diene	Monoterpene
12	8.91	0.02%	6.10 Acetoxyhexane<2->	0.00
13	9.04	0.01%	Benzaldehyde	Simple Phenolic
14	9.46	0.45%	Sabinene	Monoterpene
15	9.61	0.65%	beta-Pinene	Monoterpene
16	9.86	0.03%	1-Octen-3-ol	Aliphatic Alcohol
17	10.03	0.03%	Octan-3-one	Aliphatic Ketone
18	10.21	2.07%	Myrcene	Monoterpene
19	10.57	1.36%	3-Octanol	Aliphatic Alcohol
20	10.73	0.03%	Pseudolimonene	Monoterpene
21	11.30	0.31%	alpha-Terpinene	Monoterpene
22	11.64	0.23%	para-Cymene	Monoterpene
23	11.89	10.55%	Limonene	Monoterpene
24	11.96	1.94%	1,8-Cineole	Monoterpene Ether
25	12.22	0.16%	(Z)-beta-Ocimene	Monoterpene
26	12.68	0.10%	(E)-beta-Ocimene	Monoterpene
27	13.14	0.53%	gamma-Terpinene	Monoterpene
28	13.67	0.95%	trans-Sabinene hydrate	Monoterpenol
29	13.83	0.04%	1-Octanol	Aliphatic Alcohol
30	14.35	0.15%	Terpinolene	Monoterpene
31	14.57	0.03%	para-Cymenene	Monoterpene
32	15.24	0.03%	2-Methylbutyl 2-methylbutyrate	Aliphatic Ester
33	15.31	0.01%	Nonanal	Aliphatic Aldehyde
34	15.50	0.02%	1-Octenyl-3 acetate	Monoterpene Ester
35	16.05	0.65%	Octan-3-yl acetate	Aliphatic Ester

Client



Source



Spearmint (*Mentha spicata*)  
US-59313

Number	RT	Area %	Compound Name	Chemical Family
36	16.37	0.06%	Alloocimene	Aliphatic Ester
37	16.49	0.01%	cis-Limonene oxide	Monoterpene Ether
38	16.70	0.06%	trans-Limonene oxide	Monoterpene Ether
39	16.81	0.05%	trans-Pinocarveol	Monoterpenol
40	16.95	0.07%	trans-para-Menth-2-en-1-ol	Monoterpenol
41	17.09	0.04%	trans-Verbenol	Monoterpenol
42	17.53	0.22%	Menthone	Monoterpene Ketone
43	17.77	0.02%	beta-Pinene oxide	Monoterpene Ether
44	17.92	0.08%	Isomenthone	Monoterpene Ketone
45	18.14	0.04%	para-Mentha-1,5-dien-8-ol	Monoterpenol
46	18.24	0.18%	Menthol	Monoterpenol
47	18.69	1.86%	Terpinen-4-ol	Monoterpenol
48	19.07	0.03%	Isomenthol	Monoterpenol
49	19.19	0.03%	Methyl salicylate	Phenolic Ester
50	19.49	2.29%	cis-Dihydrocarvone	Monoterpene Ketone
51	19.64	1.15%	neo-Dihydrocarveol	Monoterpenol
52	19.73	0.41%	trans-Dihydrocarvone	Monoterpene Ketone
53	19.97	0.01%	Decanal	Aliphatic Aldehyde
54	20.22	0.01%	Octyl acetate	Aliphatic Ester
55	20.74	0.49%	cis-Carveol	Monoterpenol
56	21.11	0.03%	cis-3-Hexenyl isovalerate	Aliphatic Ester
57	21.29	0.03%	Pulegone	Monoterpene Ketone
58	21.93	62.84%	Carvone	Monoterpene Ketone
59	22.11	0.19%	Piperitone	Monoterpene Ketone
60	22.48	0.05%	cis-Carvone oxide	
61	22.70	0.06%	Isopiperitenone	Monoterpene Ketone
62	22.95	0.02%	trans-Ascaridol glycol	Monoterpenol
63	23.04	0.09%	trans-Carvone oxide	Monoterpene Ketone
64	23.72	0.16%	Edulan II, dihydro-	Edulan
65	24.34	0.01%	20.48 Dihydro carveol acetate<neo->	0.00
66	24.44	0.01%	trans-Pinocarvyl acetate	Monoterpene Ether
67	25.21	0.41%	Dihydrocarvyl acetate	Monoterpene Ester
68	25.45	0.01%	delta-Elemene	Sesquiterpene
69	25.58	0.02%	trans-Carvyl acetate	Monoterpene Ester
70	25.67	0.01%	Piperitenone	Sesquiterpene Ketone
71	26.05	0.02%	Myrtenyl acetate	Monoterpene Ester

Client



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72	26.35	0.07%	Eugenol	Phenylpropanoid
73	26.69	0.44%	cis-Caryyl acetate	Monoterpene Ester
74	27.30	0.07%	alpha-Copaene	Sesquiterpene
75	27.63	1.83%	beta-Bourbonene	Sesquiterpene
76	27.93	0.13%	beta-Elemene	Sesquiterpene
77	28.05	0.38%	cis-Jasmone	Jasmonate
78	28.60	0.02%	Isocaryophyllene	Sesquiterpene
79	28.95	0.02%	beta-Funebrene	Sesquiterpene
80	29.10	1.24%	beta-Caryophyllene	Sesquiterpene
81	29.54	0.27%	beta-Copaene	Sesquiterpene
82	30.41	0.03%	Geranylacetone	Monoterpene
83	30.56	0.07%	alpha-Humulene	Sesquiterpene
84	30.67	0.70%	(E)-beta-Farnesene	Sesquiterpene
85	30.84	0.03%	beta-Gurjunene	Sesquiterpene
86	31.09	0.13%	Dauca-5,8-diene	Sesquiterpene
87	31.43	0.01%	gamma-Murolene	Sesquiterpene
88	31.63	0.67%	Germacrene D	Sesquiterpene
89	31.89	0.03%	2-Phenylethyl 3-methylbutyrate	Monoterpene Ester
90	32.22	0.02%	Bicyclgermacrene	Sesquiterpene
91	32.41	0.01%	alpha-Murolene	Sesquiterpene
92	32.95	0.01%	gamma-Cadinene	Sesquiterpene
93	33.20	0.06%	delta-Cadinene	Sesquiterpene
94	35.53	0.05%	Caryophyllene oxide	Sesquiterpene Ether
95	36.04	0.26%	Viridiflorol	Sesquiterpenol

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