



316 Old Hickory Blvd East, Madison, TN 37115

tel (615)612-4270 fax (615)860-9171

sold@naturesgift.com

Balancing Body, Mind and Spirit with Pure Essential Oils

Since 1995

www.naturesgift.com

Frankincense

Boswellia carterii var Birdwell

Batch #SO-59389

Somalia

Monoterpenes 73.11%

α pinene	28.98
limonene	13.00
α thujene	9.59
sabinene	5.43
para cymene	5.17
myrcene	4.64
α phellandrene	1.92
β pinene	1.28
Δ 3-carene	1.00
camphene	0.74
thuja-2,4(10)-diene	0.37
γ terpinene	0.27
terpinolene	0.16
α terpinene	0.16
(Z) β ocimene	0.13
hashishene	0.11
1-epi-bicyclosiquiphell	0.10
para-cymenene	0.08
(E) β ocimene	0.05
tricyclene	0.05
meta-cymene	0.04

Aldehydes 0.18%

α campholene aldehyde	0.12
cuminal	0.06

Ethers 1.45%

caryophyllene oxide	1.05
humulene epoxide II	0.26
perillene	0.09
6,7 epoxy myrcene	0.03
(Z) limonene oxide	0.02

Monoterpenols 4.84%

cis-verbenol	0.96
terpinen-4-ol	0.78
α terpinenol	0.68
trans-pinocarveol	0.58
linalool	0.27
para-mentha-1,5-dien-8-ol	0.26
trans-verbenol	0.24
cis-pinocarveol	0.23
para-cymen-8-ol	0.20
trans-carveol	0.15
myrcenol	0.11
myrtenol	0.11
trans sabinene hydrate	0.07
cis-para-Mentha-2,8-dien-1-ol	0.06
cis-carveol	0.04
(E) para-menth-2-en-1-ol	0.04
carvacrol	0.03
cis-piperitol	0.03

Esters 0.97%

bornyl acetate	0.43
octyl acetate	0.42
isoamyl isovalerate	0.09
2-methyl hexyl butanoate	0.02
neryl acetate	0.01

Sesquiterpene 12.98

β caryophyllene	3.89
Δ cadinene	1.03
β elemene	1.01
α copaene	1.00
α humulene	0.83
γ cadinene	0.71
α selinene	0.67
β selinene	0.61
γ muurolene	0.56
germacrene D	0.47
α cubebene	0.33
allo-aromadendrene	0.29
β bourbonene	0.28
α muurolene	0.26
(E)- α -bergamotene	0.20
α gurjunene	0.16
β cubebene	0.10
(E) cadina-1(6),4-diene	0.09
longicyclene	0.08
(E) muurola-3,5-diene	0.06
α cadinene	0.05
γ amorphene	0.05
δ elemene	0.04
(E) cadina-1,4-diene	0.03
(Z) muurola-4(14),5-diene	0.03
α calacorene	0.02
β calacorene	0.01
(Z)- α -bergamotene	0.01
β bisabolene	0.01
isocaryophyllene	0.01



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Ketones		1.1%	Other		3.14%	Sesquiterpenols		2.01%
α thujone	0.43		1 methoxydecane	0.21		cubebol	0.70	
verbenone	0.33		Cembrene A	0.13		τ cadinol	0.52	
carvone	0.19		1-octanol	0.04		guaiol	0.19	
pinocamphone	0.06					viridiflorol	0.12	
sabina ketone	0.04					spathulenol	0.08	
β thujone	0.03					elemol	0.08	
piperitone	0.02					β eudesmol	0.08	
						1-epi cubenol	0.06	
						α cadinol	0.05	
						gleenol	0.05	
						palustrol	0.03	
						α muurolol	0.03	
						ledol	0.02	

Client



Source



Frankincense (*Boswellia carterii* var *Birdwell*)

SO-59389 - Somalia

Sample

Frankincense (*Boswellia carterii* var
 Identification #: SO-59389
 Type:..... Essential Oil
 CAS Number:....
Nature's Gift

Properties

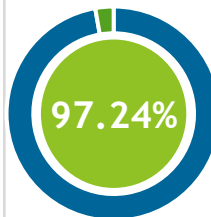
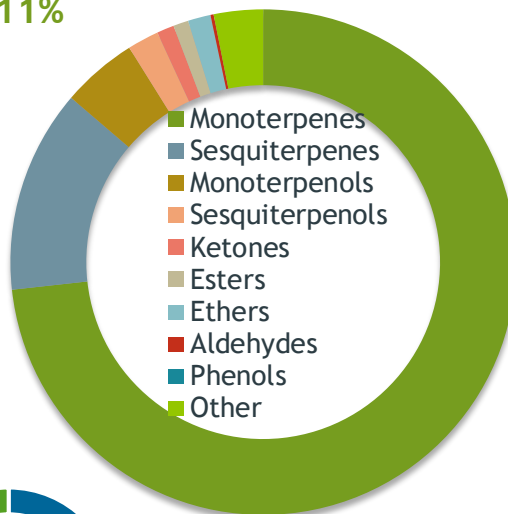
Country Of Origin | Somalia
 Specific Gravity | NT
 Refractive Index | NT

Primary

28.98% | alpha-Pinene
13.00% | Limonene
9.59% | alpha-Thujene

Monoterpenes

73.11%



Percentage Identified

Result



4/4/2024

Conclusion

No adulterants, diluents, or contaminants were detected via this method. This oil meets the expected profile for genuine Essential Oil of Frankincense (*Boswellia carterii* var *Birdwell*)

Internal Number: | EVS-6113



Essential Validation Services

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

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

Alan Christen

Monoterpenes	73.11%	73.11
Sesquiterpenes	12.9	12.98
Monoterpenols	4	4.84%
Sesquiterpenols		2.01%
Ketones		1.10%
Esters		0.97%
Ethers		1.45%
Aldehydes		0.20%
Phenols		0.00%
Other		3.14%

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Client



Source



Frankincense (*Boswellia carterii* var
Birdwell)
SO-59389

Total Percentage		97.24%		
Number	RT	Area %	Compound Name	Chemical Family
1	7.74	0.11%	Hashishene	Monoterpene
2	7.83	0.05%	Tricyclene	Monoterpene
3	8.00	9.59%	alpha-Thujene	Monoterpene
4	8.28	28.98%	alpha-Pinene	Monoterpene
5	8.65	0.37%	Thuja-2,4(10)-diene	Monoterpene
6	8.85	0.74%	Camphene	Monoterpene
7	9.79	5.43%	Sabinene	Monoterpene
8	9.96	1.28%	beta-Pinene	Monoterpene
9	10.54	4.64%	Myrcene	Monoterpene
10	11.18	1.92%	alpha-Phellandrene	Monoterpene
11	11.29	1.00%	delta-3-Carene	Monoterpene
12	11.65	0.16%	alpha-Terpinene	Monoterpene
13	11.78	0.04%	meta-Cymene	Monoterpene
14	12.00	5.17%	para-Cymene	Monoterpene
15	12.22	13.00%	Limonene	Monoterpene
16	12.57	0.13%	(Z)-beta-Ocimene	Monoterpene
17	13.03	0.05%	(E)-beta-Ocimene	Monoterpene
18	13.50	0.27%	gamma-Terpinene	Monoterpene
19	14.03	0.07%	trans-Sabinene hydrate	Monoterpenol
20	14.18	0.04%	1-Octanol	Aliphatic Alcohol
21	14.71	0.16%	10.98 Terpinolene	0.00
22	14.94	0.08%	para-Cymenene	Monoterpene
23	15.04	0.03%	6,7-Epoxyterpinene	Monoterpene Ether
24	15.36	0.09%	Perillene	Monoterpene Ether
25	15.45	0.27%	Linalool	Monoterpenol
26	15.65	0.03%	beta-Thujone	Monoterpene Ketone
27	15.76	0.09%	Isoamyl isovalerate	Aliphatic Ester
28	16.17	0.43%	alpha-Thujone	Monoterpene Ketone
29	16.40	0.11%	Myrcenol	Monoterpenol
30	16.49	0.04%	trans-para-Menth-2-en-1-ol	Monoterpenol
31	16.58	0.12%	alpha-Campholene aldehyde	Monoterpene Aldehyde
32	16.86	0.02%	cis-Limonene oxide	Monoterpene Ether
33	17.06	0.06%	cis-para-Mentha-2,8-dien-1-ol	Monoterpenol
34	17.19	0.58%	trans-Pinocarveol	Monoterpenol
35	17.29	0.24%	trans-Verbenol	Monoterpenol

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Number	RT	Area %	Compound Name	Chemical Family
36	17.459	0.96%	cis-Verbenol	Monoterpenol
37	17.96	0.04%	Sabina ketone	Monoterpene Ketone
38	18.08	0.06%	Pinocamphone	Monoterpene Ketone
39	18.58	0.23%	cis-Pinocarveol	Monoterpenol
40	18.67	0.26%	para-Mentha-1,5-dien-8-ol	Monoterpenol
41	19.05	0.78%	Terpinen-4-ol	Monoterpenol
42	19.40	0.20%	para-Cymen-8-ol	Monoterpenol
43	19.75	0.68%	alpha-Terpineol	Monoterpenol
44	20.09	0.11%	Myrtenol	Monoterpenol
45	20.23	0.33%	Verbenone	Monoterpene Ketone
46	20.38	0.03%	cis-Piperitol	Monoterpenol
47	20.57	0.42%	Octyl acetate	Aliphatic Ester
48	20.86	0.15%	trans-Carveol	Monoterpenol
49	21.31	0.21%	1-Methoxydecane	Alkane
50	21.45	0.04%	16.94 Carveol<cis->	0.00
51	21.69	0.02%	Hexyl 2-methyl butanoate	Monoterpene Ester
52	21.84	0.06%	Cuminal	Monoterpene Aldehyde
53	21.93	0.19%	Carvone	Monoterpene Ketone
54	22.15	0.04%	cis-Carveol	Monoterpenol
55	22.36	0.02%	Piperitone	Monoterpene Ketone
56	23.39	0.02%	Phellandral	Monoterpene Aldehyde
57	23.73	0.43%	Bornyl acetate	Monoterpene Ester
58	24.55	0.03%	Carvacrol	Monoterpenol
59	25.96	0.04%	delta-Elemene	Sesquiterpene
60	26.48	0.33%	alpha-Cubebene	Sesquiterpene
61	27.07	0.01%	Neryl acetate	Monoterpene Ester
62	27.31	0.08%	Longicyclene	Sesquiterpene
63	27.66	1.00%	alpha-Copaene	Sesquiterpene
64	27.98	0.28%	beta-Bourbonene	Sesquiterpene
65	28.20	0.10%	beta-Cubebene	Sesquiterpene
66	28.28	1.01%	beta-Elemene	Sesquiterpene
67	28.85	0.01%	Isocaryophyllene	Sesquiterpene
68	28.97	0.16%	alpha-Gurjunene	Sesquiterpene
69	29.28	0.01%	cis-alpha-Bergamotene	Sesquiterpene
70	29.46	3.89%	beta-Caryophyllene	Sesquiterpene

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72	30.12	0.20%	trans-alpha-Bergamotene	Sesquiterpene
73	30.68	0.06%	trans-Muurolo-3,5-diene	Sesquiterpene
74	30.92	0.83%	alpha-Humulene	Sesquiterpene
75	31.10	0.29%	allo-Aromadendrene	Sesquiterpene
76	31.22	0.03%	cis-Muurolo-4(14),5-diene	Sesquiterpene
77	31.68	0.09%	trans-Cadina-1(6),4-diene	Sesquiterpene
78	31.78	0.56%	gamma-Muuroloene	Sesquiterpene
79	31.98	0.47%	Germacrene D	Sesquiterpene
80	32.28	0.61%	beta-Selinene	Sesquiterpene
81	32.40	0.10%	1-epi-Bicyclosesquiphellandrene	Monoterpene
82	32.48	0.05%	gamma-Amorphene	Sesquiterpene
83	32.59	0.67%	alpha-Selinene	Sesquiterpene
84	32.75	0.26%	alpha-Muuroloene	Sesquiterpene
85	33.18	0.01%	beta-Bisabolene	Sesquiterpene
86	33.30	0.71%	gamma-Cadinene	Sesquiterpene
87	33.38	0.70%	Cubebol	Sesquiterpenol
88	33.54	1.03%	delta-Cadinene	Sesquiterpene
89	34.05	0.03%	trans-Cadina-1,4-diene	Sesquiterpene
90	34.22	0.05%	alpha-Cadinene	Sesquiterpene
91	34.37	0.02%	alpha-Calacorene	Sesquiterpene
92	34.70	0.08%	Elemol	Sesquiterpenol
93	35.20	0.01%	beta-Calacorene	Sesquiterpene
94	35.47	0.03%	Palustrol	Sesquiterpenol
95	35.73	0.08%	Spathulenol	Sesquiterpenol
96	35.89	1.05%	Caryophyllene oxide	Sesquiterpene Ether
97	36.19	0.05%	Gleenol	Sesquiterpenol
98	36.39	0.12%	Viridiflorol	Sesquiterpenol
99	36.77	0.02%	Ledol	Sesquiterpenol
100	36.95	0.26%	Humulene epoxide II	Sesquiterpene Ether
101	37.18	0.19%	Guaiol	Sesquiterpenol
102	37.69	0.06%	1-epi-Cubenol	Sesquiterpenol
103	38.23	0.52%	T-Cadinol	Sesquiterpenol
104	38.40	0.03%	alpha-Muurolol	Sesquiterpenol
105	38.63	0.08%	beta-Eudesmol	Sesquiterpenol
106	38.72	0.05%	alpha-Cadinol	Sesquiterpenol
107	48.87	0.13%	Cembrene A	Diterpene