



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-59221

Somalia

### Monoterpenes 70.43%

$\alpha$ pinene	26.71
limonene	13.03
$\alpha$ thujene	6.43
para cymene	5.45
myrcene	5.21
sabinene	5.01
$\alpha$ phellandrene	2.69
$\beta$ pinene	1.65
camphene	0.97
$\Delta$ 3-carene	0.86
thuja-2,4(10)-diene	0.53
$\gamma$ terpinene	0.38
hashishene	0.32
(Z) $\beta$ ocimene	0.24
terpinolene	0.24
$\alpha$ terpinene	0.24
para-cymenene	0.16
(E) $\beta$ ocimene	0.11
alloocimene	0.09
tricyclene	0.07
ortho-cymene	0.04

### Aldehydes 0.42%

$\alpha$ campholene	0.30
cuminal	0.08
phellandral	0.04

### Monoterpenols 6.01%

trans-verbenol	1.30
$\alpha$ terpinenol	0.96
terpinen-4-ol	0.86
trans-pinocarveol	0.83
para-mentha-1,5-dien-8-ol	0.64
linalool	0.29
trans-carveol	0.27
para-cymen-8-ol	0.22
cis-pinocarveol	0.16
myrcenol	0.15
cis-para-Mentha-2,8-dien-1-ol	0.08
cis-carveol	0.06
trans sabinene hydrate	0.06
cis-para-menth-2-en-1-ol	0.05
2-nonanol	0.04
carvacrol	0.04

### Esters 1.4%

octyl acetate	0.77
bornyl acetate	0.56
linalyl acetate	0.04
hexyl isovalerate	0.03

### Ethers 1.29%

caryophyllene oxide	0.95
humulene epoxide II	0.24
perillene	0.10

### Sesquiterpene 12.54%

$\beta$ caryophyllene	3.64
$\Delta$ cadinene	1.05
$\beta$ elemene	1.00
$\alpha$ copaene	0.97
$\alpha$ humulene	0.82
$\gamma$ cadinene	0.67
$\alpha$ selinene	0.65
$\beta$ selinene	0.61
$\gamma$ muurolene	0.49
germacrene D	0.43
$\alpha$ cubebene	0.38
$\beta$ bourbonene	0.32
allo-aromadendrene	0.28
$\alpha$ muurolene	0.26
(E)- $\alpha$ -bergamotene	0.18
$\alpha$ gurjunene	0.14
(Z) muurola-3,5-diene	0.10
$\beta$ copaene	0.09
$\beta$ cubebene	0.09
(E) cadi-1(6),4-diene	0.08
$\alpha$ cadinene	0.05
(Z) muurola-4(14),5-diene	0.04
$\delta$ elemene	0.04
(E) cadi-1,4-diene	0.03
6,9-guaiadiene	0.03
$\alpha$ ylangene	0.02
(Z)- $\alpha$ -bergamotene	0.02
aromadendrene	0.02
$\beta$ bisabolene	0.02
$\alpha$ calacorene	0.02



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<b>Ketones</b>	<b>1.62%</b>	<b>Other</b>	<b>0.7%</b>	<b>Sesquiterpenols</b>	<b>1.96%</b>
verbenone	0.58	incensole	0.24	cubebol	0.52
$\alpha$ thujone	0.28	Cembrene A	0.19	$\tau$ cadinol	0.49
carvone	0.24	1-octanol	0.10	viridiflorol	0.33
pinocarvone	0.16	1 methoxydecane	0.1	guaiol	0.16
pinocamphone	0.15	para-methylacetophenone	0.04	spathulenol	0.08
piperitone	0.06	santene	0.03	elemol	0.07
2-nonanone	0.04			1,10-di-epi-cubebol	0.06
6-Methyl-3,5-heptadien-2-	0.04			gleenol	0.06
cryptone	0.04			$\beta$ eudesmol	0.06
sabina ketone	0.03			$\alpha$ cadinol	0.05
				palustrol	0.03
				$\alpha$ muurolol	0.03
				ledol	0.02

Client



Source



Frankincense, Somolian (*Boswellia carterii* var *Birdwell*)  
SO-59221

Sample

Frankincense, Somolian (*Boswellia carterii*)

Batch #:..... | SO-59221

Type:..... | Essential Oil

CAS Number:...

Nature's Gift

Client



Website

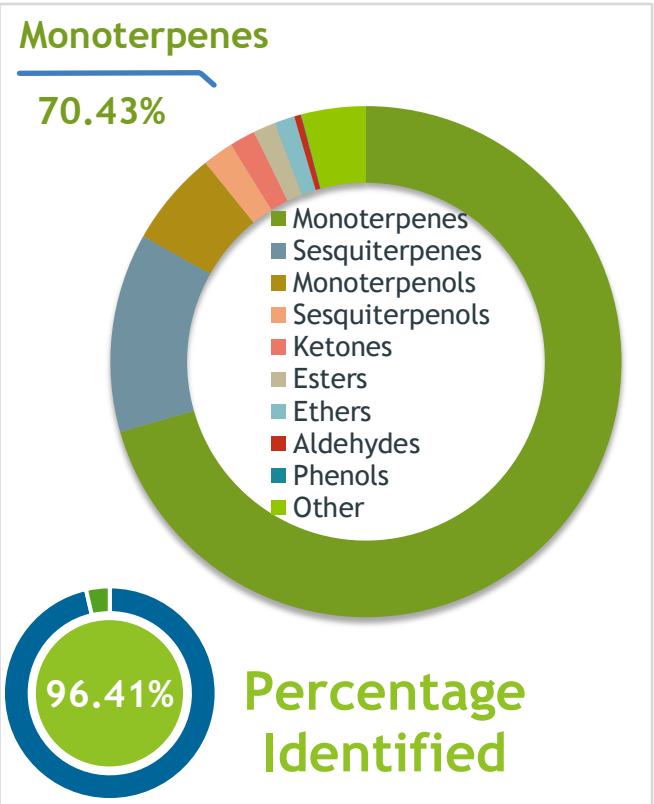


Primary

26.71% | alpha-Pinene

13.03% | Limonene

6.43% | alpha-Thujene



APPROVED

Conclusion

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

Internal Number: | EVS-4822



**Essential Validation Services**

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

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

*Alan Chastain*

Monoterpenes	70.43%	70.43%
Sesquiterpenes	12.58%	12.58%
Monoterpenols	6.01%	6.01%
Sesquiterpenols	1.96%	1.96%
Ketones	1.62%	1.62%
Esters	1.40%	1.40%
Ethers	1.29%	1.29%
Aldehydes	0.42%	0.42%
Phenols	0.04%	0.04%
Other	4.06%	4.06%

ESSENTIAL VALIDATION SERVICES | 747 SW 2<sup>ND</sup> AVE GAINESVILLE, FLORIDA 32601 | 317-361-5044

- 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



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Total Percentage		96.41%		
Number	RT	Area %	Compound Name	Chemical Family
1	6.35	0.03%	Santene	Normonoterpene
2	7.68	0.32%	Hashishene	Monoterpene
3	7.76	0.07%	Tricyclene	Monoterpene
4	7.93	6.43%	alpha-Thujene	Monoterpene
5	8.23	26.71%	alpha-Pinene	Monoterpene
6	8.78	0.97%	Camphene	Monoterpene
7	8.95	0.53%	Thuja-2,4(10)-diene	Monoterpene
8	9.73	5.01%	Sabinene	Monoterpene
9	9.89	1.65%	beta-Pinene	Monoterpene
10	10.48	5.21%	Myrcene	Monoterpene
11	11.12	2.69%	alpha-Phellandrene	Monoterpene
12	11.22	0.86%	delta-3-Carene	Monoterpene
13	11.59	0.24%	alpha-Terpinene	Monoterpene
14	11.71	0.04%	o-Cymene	Monoterpene
15	11.93	5.45%	para-Cymene	Monoterpene
16	12.16	13.03%	Limonene	Monoterpene
17	12.50	0.24%	(Z)-beta-Ocimene	Monoterpene
18	12.96	0.11%	(E)-beta-Ocimene	Monoterpene
19	13.43	0.38%	gamma-Terpinene	Monoterpene
20	13.95	0.06%	trans-Sabinene hydrate	Monoterpenol
21	14.10	0.10%	1-Octanol	Aliphatic Alcohol
22	14.64	0.24%	Terpinolene	Monoterpene
23	14.86	0.16%	para-Cymenene	Monoterpene
24	14.96	0.04%	2-Nonanone	Monoterpene Ketone
25	15.30	0.10%	Perillene	Monoterpene Ether
26	15.38	0.29%	Linalool	Monoterpenol
27	15.52	0.04%	2-Nonanol	Monoterpenol
28	15.92	0.04%	6-Methyl-3,5-heptadien-2-one	Monoterpene Ketone
29	16.10	0.28%	alpha-Thujone	Monoterpene Ketone
30	16.33	0.15%	Myrcenol	Monoterpenol
31	16.41	0.05%	cis-para-Menth-2-en-1-ol	Monoterpenol
32	16.51	0.30%	alpha-Campholene aldehyde	Monoterpene Aldehyde
33	16.67	0.09%	Alloocimene	Monoterpene
34	16.98	0.08%	cis-para-Mentha-2,8-dien-1-ol	Monoterpenol
35	17.11	0.83%	trans-Pinocarveol	Monoterpenol

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Number	RT	Area %	Compound Name	Chemical Family
36	17.389	1.30%	trans-Verbenol	Monoterpenol
37	17.88	0.03%	Sabina ketone	Monoterpene Ketone
38	18.01	0.15%	Pinocamphone	Monoterpene Ketone
39	18.10	0.16%	Pinocarvone	Monoterpene Ketone
40	18.60	0.64%	para-Mentha-1,5-dien-8-ol	Monoterpenol
41	18.98	0.86%	Terpinen-4-ol	Monoterpenol
42	19.16	0.04%	para-Methylacetophenone	Simple Phenolic
43	19.22	0.04%	Cryptone	Monoterpene Ketone
44	19.32	0.22%	para-Cymen-8-ol	Monoterpenol
45	19.68	0.96%	alpha-Terpineol	Monoterpenol
46	20.02	0.16%	cis-Pinocarveol	Monoterpenol
47	20.15	0.58%	Verbenone	Monoterpene Ketone
48	20.52	0.77%	Octyl acetate	Aliphatic Ester
49	20.78	0.27%	trans-Carveol	Monoterpenol
50	21.27	0.10%	1-Methoxydecane	Alkane
51	21.37	0.06%	cis-Carveol	Monoterpenol
52	21.76	0.08%	Cuminal	Monoterpene Aldehyde
53	21.85	0.24%	Carvone	Monoterpene Ketone
54	21.93	0.03%	Hexyl isovalerate	Monoterpene Ester
55	22.08	0.06%	Piperitone	Monoterpene Ketone
56	22.27	0.04%	Linalyl acetate	Monoterpene Ester
57	23.32	0.04%	Phellandral	Monoterpene Aldehyde
58	23.69	0.56%	Bornyl acetate	Monoterpene Ester
59	24.45	0.04%	Carvacrol	Monoterpenol
60	25.93	0.04%	delta-Elemene	Sesquiterpene
61	26.44	0.38%	alpha-Cubebene	Sesquiterpene
62	27.36	0.02%	alpha-Ylangene	Sesquiterpene
63	27.63	0.97%	alpha-Copaene	Sesquiterpene
64	27.95	0.32%	beta-Bourbonene	Sesquiterpene
65	28.17	0.09%	beta-Cubebene	Sesquiterpene
66	28.26	1.00%	beta-Elemene	Sesquiterpene
67	28.95	0.14%	alpha-Gurjunene	Sesquiterpene
68	29.26	0.02%	cis-alpha-Bergamotene	Sesquiterpene
69	29.44	3.64%	beta-Caryophyllene	Sesquiterpene
70	29.87	0.09%	beta-Copaene	Sesquiterpene
71	30.10	0.18%	trans-alpha-Bergamotene	Sesquiterpene

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72	30.21	0.02%	Aromadendrene	Sesquiterpene
73	30.38	0.03%	6,9-Guaiadiene	Sesquiterpene
74	30.66	0.10%	cis-Muurola-3,5-diene	Sesquiterpene
75	30.90	0.82%	alpha-Humulene	Sesquiterpene
76	31.08	0.28%	allo-Aromadendrene	Sesquiterpene
77	31.18	0.04%	cis-Muurola-4(14),5-diene	Sesquiterpene
78	31.64	0.08%	trans-Cadina-1(6),4-diene	Sesquiterpene
79	31.76	0.49%	gamma-Muuroloene	Sesquiterpene
80	31.96	0.43%	Germacrene D	Sesquiterpene
81	32.26	0.61%	beta-Selinene	Sesquiterpene
82	32.46	0.04%	gamma-Amorphene	Sesquiterpene
83	32.56	0.65%	alpha-Selinene	Sesquiterpene
84	32.73	0.26%	alpha-Muuroloene	Sesquiterpene
85	33.16	0.02%	beta-Bisabolene	Sesquiterpene
86	33.28	0.67%	gamma-Cadinene	Sesquiterpene
87	33.36	0.52%	Cubebol	Sesquiterpenol
88	33.52	1.05%	delta-Cadinene	Sesquiterpene
89	34.04	0.03%	trans-Cadina-1,4-diene	Sesquiterpene
90	34.20	0.05%	alpha-Cadinene	Sesquiterpene
91	34.35	0.02%	alpha-Calacorene	Sesquiterpene
92	34.67	0.07%	Elemol	Sesquiterpenol
93	35.45	0.03%	Palustrol	Sesquiterpenol
94	35.70	0.08%	Spathulenol	Sesquiterpenol
95	35.87	0.95%	Caryophyllene oxide	Sesquiterpene Ether
96	36.15	0.06%	Gleenol	Sesquiterpenol
97	36.36	0.33%	Viridiflorol	Sesquiterpenol
98	36.75	0.02%	Ledol	Sesquiterpenol
99	36.93	0.24%	Humulene epoxide II	Sesquiterpene Ether
100	37.18	0.16%	Guaiol	Sesquiterpenol
101	37.67	0.06%	1,10-di-epi-Cubenol	Sesquiterpenol
102	38.21	0.49%	T-Cadinol	Sesquiterpenol
103	38.38	0.03%	alpha-Muurolol	Sesquiterpenol
104	38.61	0.06%	beta-Eudesmol	Sesquiterpenol
105	38.71	0.05%	alpha-Cadinol	Sesquiterpenol
106	48.88	0.19%	45.55 Cembrene A<3E->	0.00
107	54.74	0.24%	Incensole	Diterpenol