


Palo Santo (*Bursera graveolens*)  
PS-PIU-2020-011545

Client



**NATURAL SOURCING**  
Essential and Personal Care Ingredients

Source



Sample

**Palo Santo (*Bursera graveolens*)**

Batch #:..... | PS-PIU-2020-011545

Type:..... | Essential Oil

CAS Number:... | 959130-05-3

**Natural Sourcing LLC**

Client



**NATURAL SOURCING**  
Essential and Personal Care Ingredients

Website

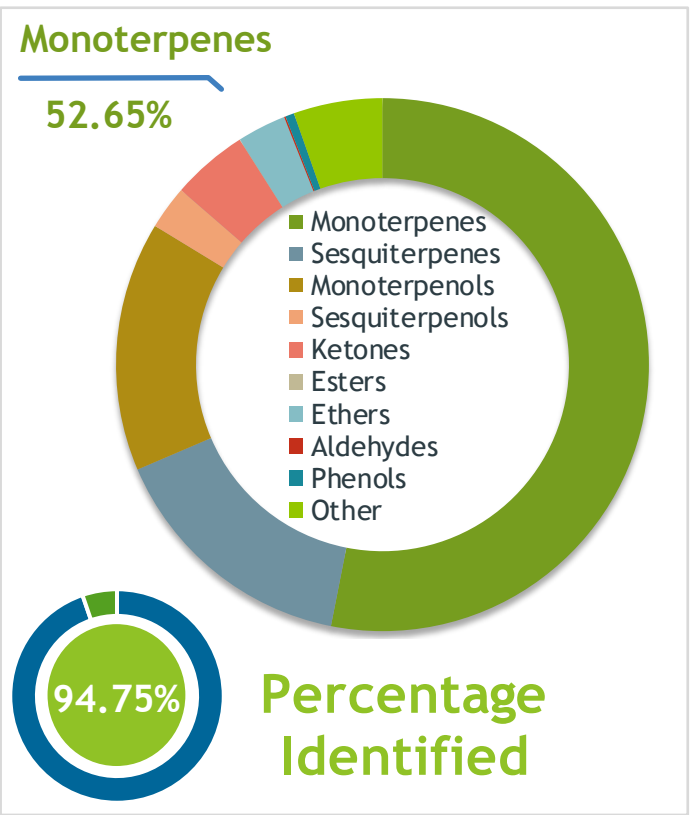


Primary

**48.62%** | Limonene

**11.17%** | alpha-Terpineol

**6.87%** | beta-Bisabolene



Result



Conclusion

No adulterants, diluents, or contaminants were detected via this method. This oil meets the expected profile for genuine Essential Oil of Palo Santo (*Bursera graveolens*)

Internal Number: | EVS-3691



**Essential Validation Services**

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

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

adam@essentialvalidationservices.com



Monoterpenes	52.65%	52.65%
Sesquiterpenes	15.33%	15.33%
Monoterpenols	15.02%	15.02%
Sesquiterpenols	2.63%	2.63%
Ketones	4	4.59%
Esters	0.02%	0.02%
Ethers	2.94%	2.94%
Aldehydes	0.09%	0.09%
Phenols	0.53%	0.53%
Other	5	5.35%

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

Client



Source

Palo Santo (*Bursera graveolens*)

PS-PIU-2020-011545

Total Percentage		94.75%		
Number	RT	Area %	Compound Name	Chemical Family
1	3.75	0.03%	1-methyl-1,3-Cyclohexadiene	0.00
2	5.71	0.07%	(E)-2-Hexenal	Aliphatic Aldehyde
3	8.57	0.10%	alpha-Pinene	Monoterpene
4	9.28	0.04%	3-Methyl cyclohexanone	Aliphatic Ketone
5	9.98	0.03%	1-Heptanol	Aliphatic Alcohol
6	10.69	0.29%	6-Methyl-5-hepten-2-one	Aliphatic Ketone
7	10.88	0.20%	Dehydro-1,8-cineole	Monoterpene Ether
8	11.14	0.02%	2-Octanol	Aliphatic Alcohol
9	11.30	0.16%	3-p-Menthene	Monoterpene
10	11.52	0.21%	o-Cymene	Monoterpene
11	12.40	3.09%	para-Cymene	Monoterpene
12	12.70	48.62%	Limonene	Monoterpene
13	12.75	0.07%	1,8-Cineole	Monoterpene Ether
14	15.21	0.01%	trans-Linalool oxide (5) (furanoid)	Monoterpenol
15	15.35	0.41%	para-Cymenene	Monoterpene
16	15.67	0.01%	p-Mentha-3,8-diene	Monoterpene
17	15.87	0.09%	Linalool	Monoterpenol
18	16.39	0.05%	1,3,8-para-Menthatriene	Monoterpene
19	16.80	0.33%	cis-para-Mentha-2,8-dien-1-ol	Monoterpenol
20	17.20	0.19%	Limona ketone	Simple Phenolic
21	17.49	0.36%	trans-para-Mentha-2,8-dien-1-ol	Monoterpenol
22	18.09	0.41%	13.20 Terpineol<cis-beta->	0.00
23	18.36	0.72%	Menthone	Monoterpene Ketone
24	18.48	0.02%	Citronellal	Monoterpene Aldehyde
25	18.72	1.38%	Menthofuran	Monoterpene Ether
26	18.93	0.08%	trans-beta-Terpineol	Monoterpenol
27	19.04	0.04%	delta-Terpineol	Monoterpenol
28	19.11	0.06%	para-Mentha-1,5-dien-8-ol	Monoterpenol
29	19.26	0.03%	Isopulegone	Monoterpene Ketone
30	19.43	1.08%	6,7-Dihydrogeraniol	
31	19.51	0.09%	Terpinen-4-ol	Monoterpenol
32	19.67	0.34%	para-Methylacetophenone	Simple Phenolic
33	20.08	0.05%	Neoisomenthol	Monoterpenol
34	20.26	11.17%	alpha-Terpineol	Monoterpenol
35	20.33	0.36%	cis-Dihydrocarvone	Monoterpene Ketone

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

Palo Santo (*Bursera graveolens*)

PS-PIU-2020-011545

Number	RT	Area %	Compound Name	Chemical Family
36	20.443	0.54%	cis-Piperitol	Monoterpene Ketone
37	20.59	0.13%	trans-Dihydrocarvone	Monoterpene Ketone
38	21.32	1.48%	trans-Carveol	Monoterpenol
39	21.91	0.65%	cis-Carveol	Monoterpenol
40	22.12	0.56%	Pulegone	Monoterpene Ketone
41	22.40	2.42%	Carvone	Monoterpene Ketone
42	22.61	0.02%	Carvotanacetone	Monoterpene Ketone
43	24.70	0.02%	2-Undecanone	Aliphatic Ketone
44	24.91	0.07%	Perillyl alcohol	Monoterpenol
45	26.51	0.56%	delta-Elemene	Sesquiterpene
46	27.03	0.10%	alpha-Cubebene	Sesquiterpene
47	27.55	0.02%	trans-Caryll acetate	Monoterpene Ester
48	27.95	0.43%	alpha-Ylangene	Sesquiterpene
49	28.23	0.45%	alpha-Copaene	Sesquiterpene
50	28.84	1.29%	beta-Elemene	Sesquiterpene
51	29.85	0.11%	alpha-Cedrene	Sesquiterpene
52	30.17	0.04%	beta-Cedrene	Sesquiterpene
53	30.48	0.24%	beta-Copaene	Sesquiterpene
54	30.68	0.12%	trans-alpha-Bergamotene	Sesquiterpene
55	31.01	0.41%	beta-Humulene	0.00
56	31.16	0.09%	beta-Barbatene	Sesquiterpene
57	31.27	0.88%	Aromadendrene	Sesquiterpene
58	31.56	0.07%	(E)-beta-Farnesene	Sesquiterpene
59	31.63	0.03%	alpha-Guaiene	Sesquiterpene
60	32.36	1.65%	gamma-Muurolene	Sesquiterpene
61	32.53	0.38%	6,9-Guaiadiene	Sesquiterpene
62	32.64	0.05%	ar-Curcumene	Sesquiterpene
63	32.73	0.04%	Sesquisabinene	
64	32.87	0.11%	beta-Selinene	Sesquiterpene
65	33.17	0.02%	alpha-Selinene	Sesquiterpene
66	33.33	0.47%	alpha-Muurolene	Sesquiterpene
67	33.66	1.18%	beta-Dihydroagarofuran	Sesquiterpene Ether
68	33.77	6.87%	beta-Bisabolene	Sesquiterpene
69	33.88	0.58%	gamma-Cadinene	Sesquiterpene
70	34.13	0.39%	beta-Cadinene	Sesquiterpene
71	34.21	0.08%	trans-Calamenene	Sesquiterpene

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

