

Client



Source



Black Spruce, Organic (*Picea mariana*)
BPIMACAN07VAC

Sample

Black Spruce, Organic (*Picea mariana*)
Batch #:..... BPIMACAN07VAC
Type:..... Essential Oil
CAS Number:... 91722-19-9
Natural Sourcing LLC

Client



Website

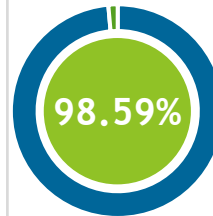
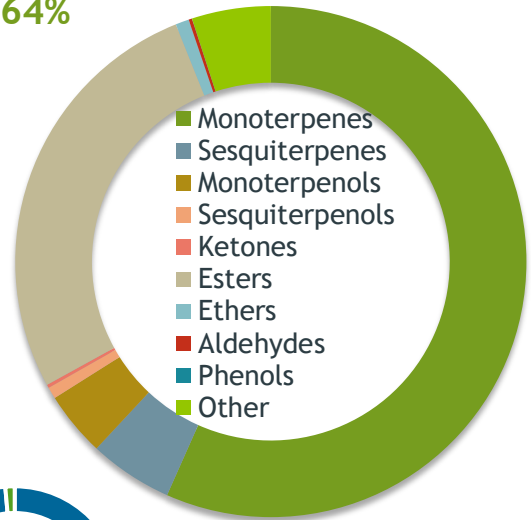


Primary

25.33% Bornyl acetate
14.97% Camphene
13.31% alpha-Pinene

Monoterpenes

56.64%



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 Black Spruce, Organic (*Picea mariana*)

Internal Number: | EVS-4792



Essential Validation Services

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

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

Alan Chastain

Monoterpenes	56.64%	56.64%
Sesquiterpenes	5.29%	5.29%
Monoterpenols	4.09%	4.09%
Sesquiterpenols	0.74%	0.74%
Ketones	0.21%	0.21%
Esters	26.94%	26.94%
Ethers	0.85%	0.85%
Aldehydes	0.21%	0.21%
Phenols	0.01%	0.01%
Other	4.99%	4.99%

- 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- This report may not be published without the consent of Essential Validation Services.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

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NATURAL SOURCING
 Cosmetic and Personal Care Ingredient Specialists
 PROUDLY SERVING YOU FOR OVER 30 YEARS

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Total Percentage		98.59%		
Number	RT	Area %	Compound Name	Chemical Family
1	5.61	0.04%	cis-Hex-3-en-1-ol	Aliphatic Alcohol
2	6.03	0.02%	1-Hexanol	Aliphatic Alcohol
3	6.37	3.52%	Santene	Normonoterpene
4	7.73	2.45%	Tricyclene	Monoterpene
5	7.90	0.26%	alpha-Thujene	Monoterpene
6	8.16	13.31%	alpha-Pinene	Monoterpene
7	8.77	14.97%	Camphene	Monoterpene
8	8.92	0.03%	Thuja-2,4(10)-diene	Monoterpene
9	9.70	0.18%	Sabinene	Monoterpene
10	9.86	4.72%	beta-Pinene	Monoterpene
11	10.45	4.27%	Myrcene	Monoterpene
12	11.09	0.58%	alpha-Phellandrene	Monoterpene
13	11.21	7.89%	delta-3-Carene	Monoterpene
14	11.56	0.36%	alpha-Terpinene	Monoterpene
15	11.69	0.01%	ortho-Cymene	Monoterpene
16	11.89	0.28%	para-Cymene	Monoterpene
17	12.11	5.38%	Limonene	Monoterpene
18	12.18	0.66%	1,8-Cineole	Monoterpene Ether
19	12.48	0.05%	(Z)-beta-Ocimene	Monoterpene
20	12.93	0.02%	(E)-beta-Ocimene	Monoterpene
21	13.40	0.34%	gamma-Terpinene	Monoterpene
22	14.63	1.39%	Terpinolene	Monoterpene
23	14.84	0.15%	para-Cymenene	Monoterpene
24	15.00	0.15%	alpha-Pinene oxide	Monoterpene Ether
25	15.36	0.43%	Linalool	Monoterpenol
26	15.57	0.01%	Nonanal	Aliphatic Aldehyde
27	16.13	0.06%	Fenchol	Monoterpenol
28	16.48	0.20%	alpha-Campholene aldehyde	Monoterpene Aldehyde
29	16.94	0.01%	Nopinone	Normonoterpene Ketone
30	17.09	0.14%	trans-Pinocarveol	Monoterpenol
31	17.23	0.03%	cis-para-Menth-2-en-1-ol	Monoterpenol
32	17.33	0.16%	Camphor	Monoterpene Ketone
33	17.48	0.03%	neo-Isopulegol	Monoterpenol
34	17.72	0.56%	Camphene hydrate	Monoterpenol
35	17.92	0.03%	Isopulegol	Monoterpenol

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

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Number	RT	Area %	Compound Name	Chemical Family
36	18.134	0.14%	Isoborneol	Monoterpenol
37	18.54	1.20%	Borneol	Monoterpenol
38	18.68	0.02%	Isopinocampnone	Monoterpene Ketone
39	18.96	0.39%	Terpinen-4-ol	Monoterpenol
40	19.31	0.02%	para-Cymen-8-ol	Monoterpenol
41	19.47	0.03%	Methyl salicylate	Phenolic Ester
42	19.65	0.81%	alpha-Terpineol	Monoterpenol
43	19.83	0.01%	Methyl chavicol	Phenylpropanoid
44	20.68	0.51%	Fenchyl acetate	Monoterpene Ester
45	20.78	0.03%	trans-Carveol	Monoterpenol
46	21.22	0.11%	Citronellol	Monoterpenol
47	21.29	0.04%	Methyl thymol	Monoterpene Ether
48	21.83	0.02%	Carvone	Monoterpene Ketone
49	22.08	0.02%	cis-Carveol	Monoterpenol
50	22.27	0.09%	trans-Myrtanol	Monoterpenol
51	23.39	0.25%	cis-Verbenyl acetate	Monoterpene Ester
52	23.75	25.33%	Bornyl acetate	Monoterpene Ester
53	24.18	0.18%	trans-Sabinyl acetate	Monoterpene Ester
54	25.38	0.02%	Myrtenyl acetate	Monoterpene Ester
55	25.84	0.19%	delta-Elementene	Sesquiterpene
56	26.21	0.04%	Terpinen-4-yl acetate	Monoterpene Ester
57	26.42	0.15%	alpha-Terpinyl acetate	Monoterpene Ester
58	26.64	0.14%	Citronellyl acetate	Monoterpene Ester
59	27.45	0.01%	Longicyclene	Sesquiterpene
60	27.61	0.05%	alpha-Copaene	Sesquiterpene
61	27.86	0.29%	Geranyl acetate	Monoterpene Ester
62	28.23	0.12%	beta-Elementene	Sesquiterpene
63	28.93	0.15%	Longifolene	Sesquiterpene
64	29.40	0.33%	cis-Caryophyllene	Sesquiterpene
65	29.85	0.02%	beta-Copaene	Sesquiterpene
66	30.51	0.02%	cis-Muurolo-3,5-diene	Sesquiterpene
67	30.63	0.07%	trans-Muurolo-3,5-diene	Sesquiterpene
68	30.87	0.08%	alpha-Humulene	Sesquiterpene
69	31.16	0.06%	cis-Cadina-1(6),4-diene	Sesquiterpene
70	31.61	0.14%	trans-Cadina-1(6),4-diene	Sesquiterpene
71	31.74	0.19%	gamma-Muuroloene	Sesquiterpene

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72	31.93	0.18%	Germacrene D	Sesquiterpene
73	32.24	0.05%	beta-Selinene	Sesquiterpene
74	32.35	0.06%	cis-Muurolo-4(14),5-diene	Sesquiterpene
75	32.43	0.03%	28.62 Cadina-1,4-diene<cis->	0.00
76	32.54	0.04%	alpha-Selinene	Sesquiterpene
77	32.71	0.46%	alpha-Muurolole	Sesquiterpene
78	33.05	0.14%	(E,E)-alpha-Farnesene	Sesquiterpene
79	33.25	0.49%	gamma-Cadinene	Sesquiterpene
80	33.50	2.02%	beta-Cadinene	Sesquiterpene
81	33.59	0.01%	trans-Calamenene	Sesquiterpene
82	34.02	0.06%	trans-Cadina-1,4-diene	Sesquiterpene
83	34.19	0.11%	alpha-Cadinene	Sesquiterpene
84	34.32	0.01%	alpha-Calacorene	Sesquiterpene
85	34.42	0.23%	trans-alpha-Bisabolene	Sesquiterpene
86	37.65	0.03%	1,10-di-epi-Cubenol	Sesquiterpenol
87	38.20	0.19%	T-Cadinol	Sesquiterpenol
88	38.26	0.15%	T-Muurolol	Sesquiterpenol
89	38.36	0.04%	alpha-Muurolol	Sesquiterpenol
90	38.68	0.33%	alpha-Cadinol	Sesquiterpenol