

Client

**WHOLESALE
BOTANICS**
.COM

Source



Pepper, Black (*Piper nigrum*)
K-BLA

Sample

Pepper, Black (*Piper nigrum*)

Batch #:..... K-BLA

Type:..... Essential Oil

CAS Number:... 8006-82-4

Wholesale Botanics

Client

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Website

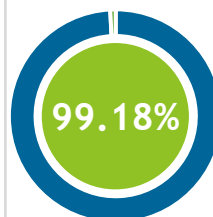
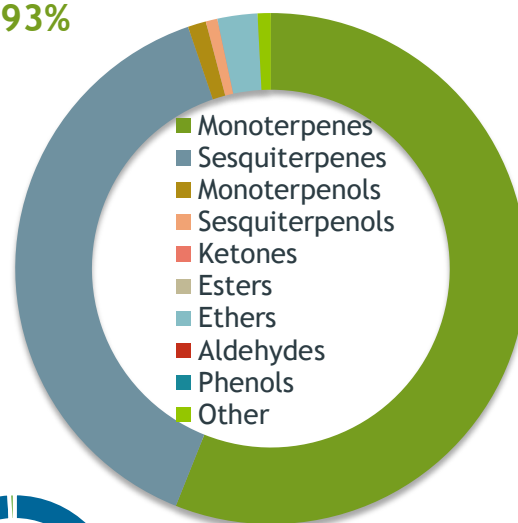


Primary

25.03%beta-Caryophyllene14.15%Limonene11.11%Sabinene

Monoterpenes

55.93%



Percentage
Identified

Result

APPROVED

Conclusion

No adulterants, diluents, or contaminants were detected via this method. This oil meets the expected profile for genuine Essential Oil of Pepper, Black (*Piper nigrum*)

Internal Number: | EVS-5293



Essential Validation
Services

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

317.361.5044 |

<https://essentialvalidationservices.com/>

Monoterpenes	55.93%	55.93%
Sesquiterpenes	38.59%	38.59%
Monoterpenols		1.15%
Sesquiterpenols		0.73%
Ketones		0.01%
Esters		0.00%
Ethers		2.52%
Aldehydes		0.00%
Phenols		0.00%
Other		0.83%

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Total Percentage		99.18%		
Number	RT	Area %	Compound Name	Chemical Family
1	7.73	0.98%	alpha-Thujene	Monoterpene
2	7.98	6.64%	alpha-Pinene	Monoterpene
3	8.58	0.18%	Camphene	Monoterpene
4	9.54	11.11%	Sabinene	Monoterpene
5	9.70	8.17%	beta-Pinene	Monoterpene
6	10.26	1.44%	Myrcene	Monoterpene
7	10.80	0.01%	Pseudolimonene	Monoterpene
8	10.91	1.15%	alpha-Phellandrene	Monoterpene
9	11.03	10.23%	delta-3-Carene	Monoterpene
10	11.37	0.05%	alpha-Terpinene	Monoterpene
11	11.71	1.06%	para-Cymene	Monoterpene
12	11.94	14.15%	Limonene	Monoterpene
13	12.28	0.02%	(Z)-beta-Ocimene	Monoterpene
14	12.74	0.09%	(E)-beta-Ocimene	Monoterpene
15	13.21	0.12%	gamma-Terpinene	Monoterpene
16	13.73	0.12%	trans-Sabinene hydrate	Monoterpenol
17	14.26	0.15%	Isoterpinolene	Monoterpene
18	14.42	0.36%	Terpinolene	Monoterpene
19	14.64	0.02%	para-Cymenene	Monoterpene
20	15.16	0.51%	Linalool	Monoterpenol
21	15.45	0.01%	alpha-Pinene oxide	Monoterpene Ether
22	16.08	0.01%	trans-para-Mentha-2,8-dien-1-ol	Monoterpenol
23	16.19	0.02%	cis-para-Menth-2-en-1-ol	Monoterpenol
24	16.56	0.01%	cis-Limonene oxide	Monoterpene Ether
25	16.75	0.01%	cis-para-Mentha-2,8-dien-1-ol	Monoterpenol
26	16.88	0.03%	trans-Pinocarveol	Monoterpenol
27	17.15	0.02%	trans-Verbenol	Monoterpenol
28	17.34	0.01%	trans-Limonene oxide	Monoterpene Ether
29	17.96	0.02%	para-Mentha-1,5-dien-8-ol	Monoterpenol
30	18.75	0.19%	Terpinen-4-ol	Monoterpenol
31	18.99	0.01%	Cryptone	Monoterpene Ketone
32	19.10	0.05%	para-Cymen-8-ol	Monoterpenol
33	19.45	0.08%	alpha-Terpineol	Monoterpenol
34	19.82	0.08%	trans-para-Mentha-1(7),8-dien-2-ol	Monoterpenol
35	20.07	0.02%	16.48 Isophorone<4-methlyene->	0.00



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Number	RT	Area %	Compound Name	Chemical Family
36	20.526	0.04%	Linalool formate	0.00
37	21.16	0.01%	cis-Carveol	Monoterpenol
38	25.04	0.09%	21.01 Pinanediol<cis-2,3->	0.00
39	25.70	2.73%	delta-Elemene	Sesquiterpene
40	26.20	0.16%	alpha-Cubebene	Sesquiterpene
41	27.01	0.03%	alpha-Ylangene	Sesquiterpene
42	27.39	1.88%	alpha-Copaene	Sesquiterpene
43	27.93	0.08%	beta-Cubebene	Sesquiterpene
44	28.02	1.08%	beta-Elemene	Sesquiterpene
45	28.34	0.01%	1-Tetradecene	Alkene
46	28.58	0.03%	cis-Caryophyllene	Sesquiterpene
47	28.70	0.09%	alpha-Gurjunene	Sesquiterpene
48	29.06	0.05%	cis-alpha-Bergamotene	Sesquiterpene
49	29.28	25.03%	beta-Caryophyllene	Sesquiterpene
50	29.69	0.97%	gamma-Elemene	Sesquiterpene
51	29.90	0.22%	alpha-Guaiene	Sesquiterpene
52	30.41	0.02%	6,9-Guaiadiene	Sesquiterpene
53	30.65	1.56%	alpha-Humulene	Sesquiterpene
54	30.75	0.17%	(E)-beta-Farnesene	Sesquiterpene
55	31.11	0.05%	gamma-Gurjunene	Sesquiterpene
56	31.55	0.10%	9-epi-(E)-Caryophyllene	Sesquiterpene
57	31.71	0.21%	Germacrene D	Sesquiterpene
58	31.82	0.08%	ar-Curcumene	Sesquiterpene
59	32.01	1.05%	beta-Selinene	Sesquiterpene
60	32.14	0.06%	Viridiflorene	Sesquiterpene
61	32.32	0.88%	alpha-Selinene	Sesquiterpene
62	32.49	0.08%	alpha-Murolene	Sesquiterpene
63	32.92	1.15%	beta-Bisabolene	Sesquiterpene
64	33.28	0.52%	delta-Cadinene	Sesquiterpene
65	33.37	0.04%	trans-Calamenene	Sesquiterpene
66	33.51	0.02%	beta-Sesquiphellandrene	Sesquiterpene
67	33.64	0.05%	trans-gamma-Bisabolene	Sesquiterpene
68	33.80	0.02%	trans-Cadina-1,4-diene	Sesquiterpene
69	34.20	0.04%	trans-alpha-Bisabolene	Sesquiterpene
70	34.45	0.20%	Elemol	Sesquiterpenol
71	34.74	0.14%	Germacrene B	Sesquiterpene

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[illegible]