

Client

WHOLESALE BOTANICS .COM

Source



Cardamom (*Elettaria cardamomum*)
K-CAR

Sample

Cardamom (*Elettaria cardamomum*)

Batch #:..... K-CAR

Type:..... Essential Oil

CAS Number:... 8000-66-6

Wholesale Botanics

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Website



Primary

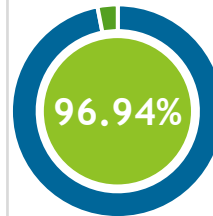
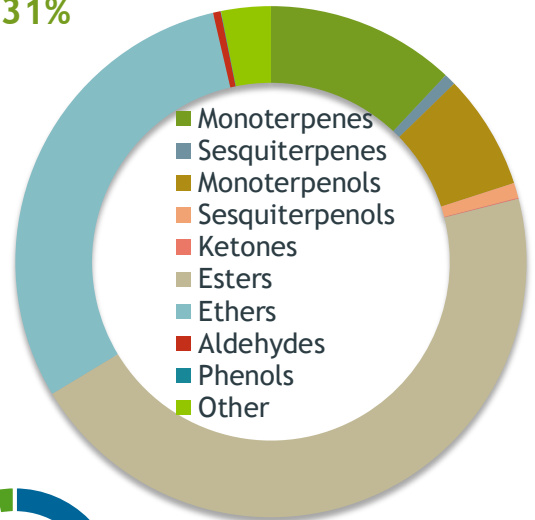
38.55% alpha-Terpinyl acetate

29.83% 1,8-Cineole

4.44% Linalyl acetate

Esters

45.31%



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 Cardamom (*Elettaria cardamomum*)

Internal Number: | EVS-5109



Essential Validation Services

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

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

Alan Chastain

Monoterpenes	11.99%	11.99%
Sesquiterpenes	0.74%	0.74%
Monoterpenols	7.29%	7.29%
Sesquiterpenols	0.96%	0.96%
Ketones	0.06%	0.06%
Esters	45.31%	45.31%
Ethers	30.01%	30.01%
Aldehydes	0.48%	0.48%
Phenols	0.03%	0.03%
Other	3.13%	3.13%

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Total Percentage		96.94%		
Number	RT	Area %	Compound Name	Chemical Family
1	3.89	0.01%	2-Hexanone	Aliphatic Ketone
2	4.00	0.02%	Hexan-2-ol	Aliphatic Alcohol
3	4.13	0.01%	Hexanal	Aliphatic Aldehyde
4	7.76	0.31%	alpha-Thujene	Monoterpene
5	8.01	1.63%	alpha-Pinene	Monoterpene
6	8.61	0.05%	Camphene	Monoterpene
7	9.55	4.00%	Sabinene	Monoterpene
8	9.71	1.20%	beta-Pinene	Monoterpene
9	9.98	0.01%	alpha-Fenchene	Monoterpene
10	10.11	0.02%	6-Methyl-5-hepten-2-one	Aliphatic Ketone
11	10.30	1.22%	Myrcene	Monoterpene
12	10.88	0.11%	Octanal	Aliphatic Aldehyde
13	10.93	0.05%	alpha-Phellandrene	Monoterpene
14	11.04	0.03%	delta-3-Carene	Monoterpene
15	11.40	0.14%	alpha-Terpinene	Monoterpene
16	11.75	0.85%	para-Cymene	Monoterpene
17	11.95	1.83%	Limonene	Monoterpene
18	12.12	29.83%	1,8-Cineole	Monoterpene Ether
19	12.33	0.02%	(Z)-beta-Ocimene	Monoterpene
20	12.78	0.03%	(E)-beta-Ocimene	Monoterpene
21	13.24	0.37%	gamma-Terpinene	Monoterpene
22	13.76	0.19%	trans-Sabinene hydrate	Monoterpenol
23	13.92	0.05%	1-Octanol	Aliphatic Alcohol
24	14.46	0.24%	Terpinolene	Monoterpene
25	14.67	0.01%	para-Cymenene	Monoterpene
26	14.77	0.02%	6,7-Epoxymyrcene	Monoterpene Ether
27	15.00	0.01%	alpha-Pinene oxide	Monoterpene Ether
28	15.21	3.01%	Linalool	Monoterpenol
29	15.82	0.08%	Perillene	Monoterpene Ether
30	16.22	0.04%	cis-para-Menth-2-en-1-ol	Monoterpenol
31	16.60	0.01%	cis-Limonene oxide	Monoterpene Ether
32	16.79	0.01%	trans-Limonene oxide	Monoterpene Ether
33	16.92	0.02%	trans-Pinocarveol	Monoterpenol
34	17.06	0.03%	trans-para-Menth-2-en-1-ol	Monoterpenol
35	17.18	0.01%	Camphor	Monoterpene Ketone

ESSENTIAL VALIDATION SERVICES | 747 SW 2ND 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

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Number	RT	Area %	Compound Name	Chemical Family
36	17.391	0.01%	cis-beta-Terpineol	Monoterpene Ketone
37	18.21	0.01%	beta-Terpineol	Monoterpenol
38	18.33	0.04%	delta-Terpineol	Monoterpenol
39	18.79	1.72%	Terpinen-4-ol	Monoterpenol
40	18.96	0.01%	para-Methylacetophenone	Simple Phenolic
41	19.14	0.03%	para-Cymen-8-ol	Monoterpenol
42	19.49	2.02%	alpha-Terpineol	Monoterpenol
43	20.07	0.03%	Decanal	Aliphatic Aldehyde
44	20.32	0.06%	Octyl acetate	Aliphatic Ester
45	20.47	0.12%	gamma-Terpineol	Monoterpenol
46	20.60	0.01%	trans-Carveol	Monoterpenol
47	20.88	0.03%	Nerol	Monoterpenol
48	21.19	0.01%	cis-Carveol	Monoterpenol
49	21.46	0.13%	Neral	Monoterpene Aldehyde
50	21.65	0.02%	Carvone	Monoterpene Ketone
51	22.08	4.44%	Linalyl acetate	Monoterpene Ester
52	22.81	0.20%	Geranial	Monoterpene Aldehyde
53	23.47	0.33%	Bornyl acetate	Monoterpene Ester
54	24.04	0.10%	Terpinen-4-yl acetate	Monoterpene Ester
55	24.20	0.01%	Lavandulyl acetate	Monoterpene Ester
56	24.79	0.20%	delta-Terpinyl acetate	Monoterpene Ester
57	25.22	0.15%	Methyl geranate	Monoterpene Ester
58	25.61	0.50%	Dihydrocarvyl acetate	Monoterpene Ester
59	25.72	0.02%	delta-Elemene	Sesquiterpene
60	26.42	38.55%	alpha-Terpinyl acetate	Monoterpene Ester
61	26.51	0.02%	Eugenol	Phenylpropanoid
62	26.85	0.04%	Neryl acetate	Monoterpene Ester
63	27.69	0.76%	Geranyl acetate	Monoterpene Ester
64	27.80	0.04%	Methyl (E)-cinnamate	Phenylpropanoid Ester
65	28.05	0.12%	beta-Elemene	Sesquiterpene
66	29.02	0.08%	Decyl acetate	Monoterpene Ester
67	29.21	0.04%	beta-Caryophyllene	Sesquiterpene
68	29.90	0.08%	gamma-Elemene	Sesquiterpene
69	31.46	0.04%	Geranyl propionate	Monoterpene Ester
70	32.05	0.33%	beta-Selinene	Sesquiterpene
71	32.35	0.10%	alpha-Selinene	Sesquiterpene

ESSENTIAL VALIDATION SERVICES | 141 SW 2nd AVE GAINESVILLE, FLORIDA 32601 | 352-301-5044

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