



CERTIFICATE of ANALYSIS (COA)

COMMON NAME	Cardamom - Organic
LATIN NAME	<i>Elettaria cardamomum</i>
COUNTRY OF ORIGIN	Guatemala
CULTIVATION METHOD	Certified Organic (USDA, NOP)
TYPE	Essential Oil
EXTRACTION METHOD	Steam Distilled
PLANT PART	Whole Fruit
USE	Aromatherapy, Natural Perfumery.

SKU	144
LOT #	21
MANUFACTURING DATE	January 2025
BEST BY DATE	January 2028

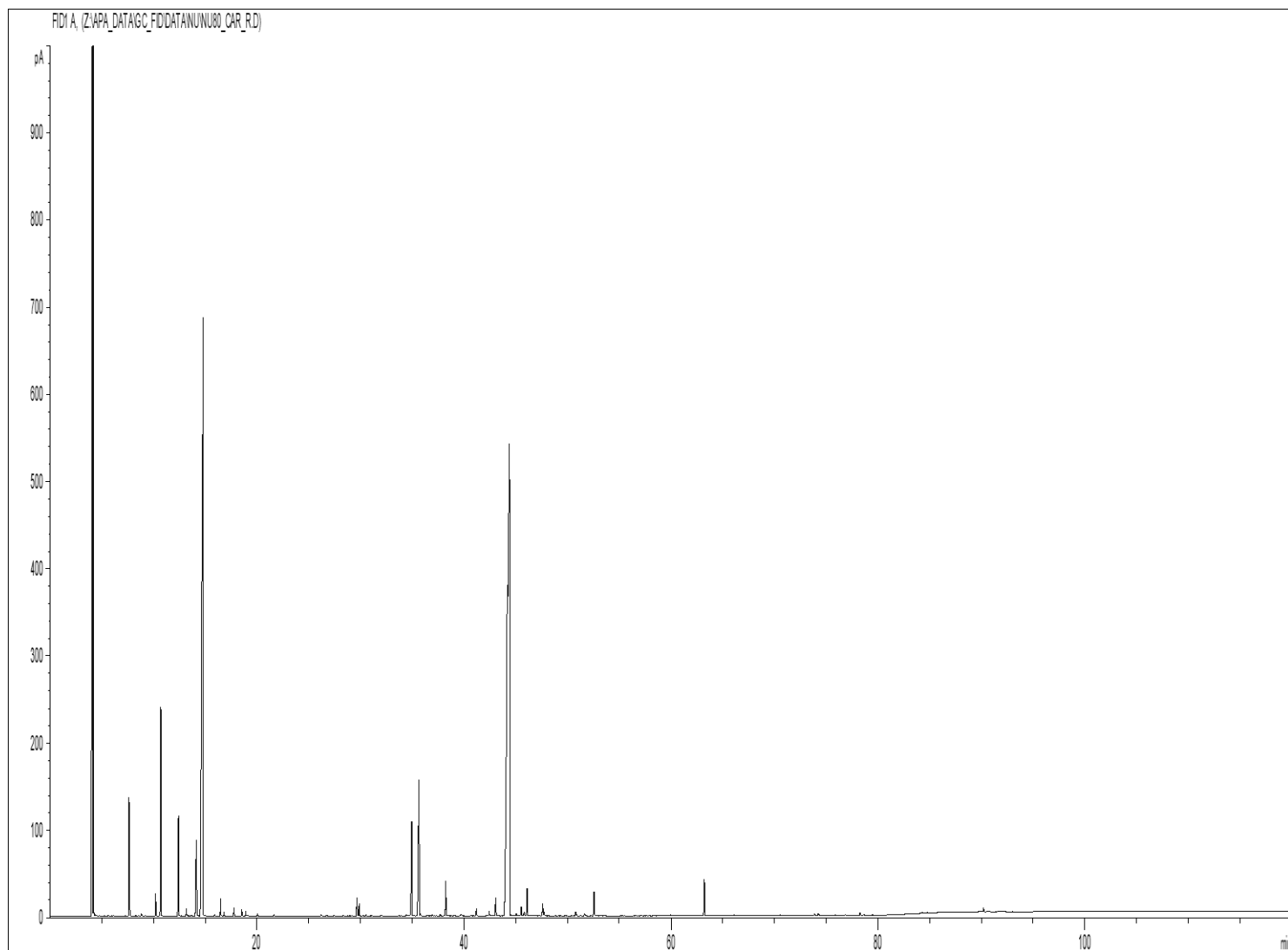
	SPECIFICATIONS (Range)	
SPECIFIC GRAVITY @20°C	0.908 – 0.949	0.9210
REFRACTIVE INDEX @20°C	1.445 – 1.483	1.4646
OPTICAL ROTATION @20°C	+22° to +44°	+27°

PHYSICAL APPEARANCE	Transparent liquid	<i>Conforms</i>
COLOR	Colorless to pale yellow	<i>Conforms</i>
ODOR	Fresh, spicy, with sweet woody undertones.	<i>Conforms</i>
SOLUBILITY	Soluble in alcohol and fixed oils	
SPECIAL USE INSTRUCTIONS	Dilute before use	

MAIN CONSTITUENTS	Terpenyl Acetate, 1.8 Cineole, Linalyl Acetate, Linalool, Alpha-Terpineol.
-------------------	--

GCMS ANALYSIS

CHROMATOGRAPHIC PROFILE:



- ORGANIC CARDAMOM EO - SKU 144 LOT 21 -

Peaks	RT (min)	Compound name	%	Standard (%)	Allergens (%)
1	7.64	alpha-PINENE	1.73	1.0 - 2.0	1.73
2	7.71	alpha-THUYENE	0.23		
3	8.83	CAMPHENE	0.02		
4	10.20	beta-PINENE	0.41		0.41
5	10.71	SABINENE	4.02	3.0 - 5.0	
6	12.39	beta-MYRCENE	1.96	Tr. - 2.5	
7	12.51	alpha-PHELLANDRENE	0.01		
8	13.16	alpha-TERPINENE	0.15		0.15
9	14.13	LIMONENE	2.72	2.0 - 3.0	2.72
10	14.79	1,8-CINEOLE	32.17	27.0 - 35.0	
11	15.89	cis-beta-OCIMENE	0.02		
12	16.48	gamma-TERPINENE	0.33		
13	16.80	trans-beta-OCIMENE	0.07		
14	17.76	p-CYMENE	0.14		
15	18.52	TERPINOLENE	0.13		0.13
16	18.89	OCTANAL	0.10		
17	20.03	1,3,7-NONATRIENE, 4,8-DIMETHYL-	0.06		
18	21.65	5-HEPTEN-2-ONE, 6-METHYL-	0.04		
19	26.23	ALIPHATIC COMPOUND	0.03		
20	27.47	ALDEHYDIC COMPOUND	0.01		
21	29.67	trans-THUYANOL	0.41		
22	29.89	TERPENIC COMPOUND	0.31		
23	30.24	delta-ELEMENE	0.01		
24	30.53	OCTYL ACETATE	0.03		
25	31.99	DECANAL	0.02		
26	33.72	TERPENIC COMPOUND	0.02		
27	34.43	cis-4-DECENAL	0.03		
28	34.97	LINALOOL	2.74	3.0 - 6.0	2.74
29	34.98	cis-THUYANOL	0.24		
30	35.66	LINALYL ACETATE	4.47	4.0 - 6.0	4.47
31	35.82	trans-p-MENTH-2-EN-1-OL	0.05		
32	36.93	BORNYL ACETATE	0.02		
33	37.71	beta-ELEMENE	0.04		
34	38.23	TERPINENE-4-OL	0.89	0.80 - 1.5	
35	39.09	TERPENIC COMPOUND	0.02		
36	39.70	cis-p-MENTH-2-EN-1-OL	0.03		
37	39.76	SESQUITERPENE	0.03		
38	40.69	GERMACRENE A	0.02		
39	40.93	2-DECENAL	0.01		
40	41.19	delta-TERPENYL ACETATE	0.18		
41	42.42	delta-TERPINEOL	0.10		
42	43.06	NERAL	0.49		0.49
43	44.38	TERPENYL ACETATE	39.72	35.0 - 45.0	

- ORGANIC CARDAMOM EO - SKU 144 LOT 21 -

Peaks	RT (min)	Compound name	%	Standard (%)	Allergens (%)
44	44.39	alpha-TERPINEOL	1.71	Tr. - 2.5	1.71
45	44.49	TERPENIC COMPOUND	0.03		
46	44.78	SESQUITERPENE	0.02		
47	45.05	GERMACRENE D	0.07		
48	45.35	TERPENIC COMPOUND	0.01		
49	45.53	beta-SELINENE	0.25		
50	45.80	alpha-SELINENE	0.09		
51	46.09	GERANIAL	0.71		0.71
52	46.53	COMPOUND Mw=164	0.03		
53	46.75	trans-PIPERITOL	0.02		
54	47.61	GERANYL ACETATE	0.35		0.35
55	47.75	gamma-CADINENE	0.10		
56	47.91	SELINA-3,7-DIENE	0.01		
57	50.80	2-TRIDECANONE	0.13		
58		NEROL			
59	51.64	GERMACRENE B	0.07		
60	52.56	GERANIOL	0.66		0.66
61	53.20	E-GERANYL ACETONE	0.02		
62	58.29	TERPENIC ESTER	0.02		
63	59.96	SESQUITERPENOL	0.02		
64	60.16	SESQUITERPENIC COMPOUND	0.01		
65	63.22	NEROLIDOL	0.95	0.50 - 1.0	
66	63.94	CAPRYLIC ACID	0.01		
67	65.21	COMPOUND Mw=222	0.01		
68	66.12	SESQUITERPENIC COMPOUND	0.02		
69	68.39	COMPOUND Mw=222	0.01		
70	70.01	SESQUITERPENIC COMPOUND	0.01		
71	70.52	1-METHYL-4-(1-ACETOXY-1-METHYLETHYL)-CYCLOHEX-2-EN	0.01		
72	73.86	CARVONE ACETATE	0.03		
73	74.25	FARNESYL ACETATE	0.07		
74	75.90	SOBREROL 8-ACETATE	0.01		
75	76.83	TRICOSANE	0.02		
76	78.28	E,E-FARNESOL	0.07		0.07
77	78.63	COMPOUND Mw=234	0.03		
78	79.47	SESQUITERPENIC COMPOUND	0.01		
79	90.20	GERANYLLINALOOL	0.10		
80	90.68	COMPOUND Mw=284	0.02		
81	95.16	PALMITIC ACID	0.02		
		TOTAL	99.96		16.34

This Essential Oil is a 100% pure and natural product. It does not contain any artificial ingredients or adulteration of any kind to the best of our knowledge. The analysis and statements herein constitute the most complete information available to Eden Botanicals. This product is guaranteed by Eden Botanicals to be of excellent quality.

Eden Botanicals
www.edenbotanicals.com
info@edenbotanicals.com
T: 1-707-509-0041 / F: 1-707-949-2526
Document created: 11.20.18
Document updated: 07.22.25