



Sample & Analysis Information

Sample Information

Sample Name: Cadamom Essential Oil**Botanical Name:** Elettaria cardamomum**Lot Number:** 13214**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** India**Analysis Date:** 4/10/2025**Manufacture Date:** April 2025

GC/MS

Inst. ID: Shimadzu GCMS-QP2010Ultra**Injection Type:** Split**Split Ratio:** 24.4**Column Type:** ZB-5**Injection Volume:** 0.1 µL**Temperature Program:** 2C/min

Physical Data

ANALYSIS

Optical Rotation @20°C

Refractive Index @20°C

Specific Gravity @20°C

METHOD

USP[781]

USP[831]

USP[841]

RESULTS

+12.48

1.46382

0.92572

Ret. Time	Component	Ret. Idx.	Conc. %	
11.624	alpha-Thujene	923	0.09%	
12.025	alpha-Pinene	931	1.21%	
12.909	Camphene	947	0.02%	
14.160	Sabinene	970	2.24%	
14.454	beta-Pinene	975	0.5%	
14.790	6-Methyl-hept-5-en-2-one	981	0.01%	
15.078	Myrcene	987	0.58%	
15.931	Octanal	1002	0.03%	
16.126	alpha-Phellandrene	1005	0.06%	
16.778	alpha-Terpinene	1015	0.14%	
17.264	para-Cymene	1023	0.28%	
17.577	Limonene	1027	6.9%	IFRA
17.670	beta-Phellandrene	1029	0.03%	
17.789	1,8-Cineole	1031	30.93%	
17.954	cis-beta-Ocimene	1033	0.02%	
18.630	trans-beta-Ocimene	1044	0.02%	
19.406	gamma-Terpinene	1056	0.31%	
20.175	trans-Sabinene hydrate	1068	0.09%	
21.187	Terpinolene	1083	0.11%	
22.159	Linalool	1098	5.1%	IFRA
23.059	trans-4,8-Dimethyl-nona-1,3,7-triene	1111	0.03%	
23.811	cis-para-Menth-2-en-1-ol	1122	0.03%	
25.035	trans-para-Menth-2-en-1-ol	1140	0.01%	
25.349	Camphor	1145	0.05%	
26.950	delta-Terpineol	1168	0.05%	
27.058	Borneol	1170	0.02%	
27.666	Terpinen-4-ol	1178	1.51%	
28.691	alpha-Terpineol	1193	4.39%	
29.461	Decanal	1205	0.02%	
29.730	Octyl acetate	1208	0.01%	
30.284	trans-Carveol	1217	0.01%	
31.587	Neral	1236	0.06%	IFRA
32.391	Linalyl acetate	1248	3.86%	
32.440	Geraniol	1248	0.18%	IFRA
32.665	2-Phenethyl acetate	1252	0.01%	
33.604	Geranial	1265	0.07%	IFRA
34.707	Bornyl acetate	1282	0.01%	
35.507	Terpin-1-en-4-yl acetate	1293	0.01%	
36.641	delta-Terpinyol acetate	1311	0.16%	
37.188	Methyl geranate	1319	0.07%	

Ret. Time	Component	Ret. Idx.	Conc. %	
38.524	Unidentified	1339	0.01%	
38.943	alpha-Terpinyl acetate	1346	38.43%	
39.627	Neryl acetate	1356	0.02%	
40.023	Unidentified	1362	0.01%	
40.318	Unidentified	1367	0.02%	
40.408	Isoledene	1368	0.01%	
40.517	Methyl dec-(2E)-enoate	1370	0.02%	
40.701	Unidentified	1372	0.02%	
40.906	Geranyl acetate	1376	0.17%	
41.276	Unidentified	1381	0.01%	
41.631	beta-Elementene	1387	0.05%	
42.398	Unidentified	1398	0.02%	
43.518	beta-Caryophyllene	1416	0.06%	
44.234	Unidentified	1428	0.02%	
44.390	Terpinyl propionate	1430	0.05%	
45.813	Dodecanol	1453	0.1%	
47.345	Germacrene D	1478	0.02%	
47.839	beta-Selinene	1486	0.15%	
47.990	Unidentified	1488	0.01%	
48.274	alpha-Selinene	1493	0.07%	
49.311	gamma-Cadinene	1510	0.03%	
49.649	Unidentified	1515	0.02%	
51.407	alpha-Elementol	1545	0.04%	
52.170	trans-Nerolidol	1558	1.33%	
53.150	Unidentified	1575	0.08%	

Total Identified Compounds **99.78 %**

TIC

26,492,427

