



Essential Oil University

GC/MS Report

Item	Lot
Citronella (Java) EO <i>Cymbopogon winterianus</i>	5P
Date	Analyst
8/4/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Citronella (Java) EO, meets the expected chemical profile for authentic essential oil of *Cymbopogon winterianus*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.



Sample Information

Company: Revive**Sample Name:** Citronella (Java) EO**Botanical Name:** Cymbopogon winterianus**Lot Number:** 5P**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Indonesia**Analysis Date:** 8/4/2025**Manufacture Date:** June 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

-1.68

1.46937

0.88907



Ret. Time	Component	Ret. Idx.	Conc. %	
3.590	Unidentified	608	0.01%	
8.889	1-Isopropyl-3-methylcyclopentane isomer	861	0.01%	
8.945	1-Isopropyl-3-methylcyclopentane isomer	862	0.01%	
11.453	Tricyclene	920	0.04%	
11.999	alpha-Pinene	930	0.15%	
12.881	Camphene	946	0.15%	
14.127	Sabinene	969	0.01%	
14.758	6-Methyl hept-5-en-2-one	981	0.08%	
15.051	Myrcene	986	0.04%	
17.223	para-Cymene	1022	0.01%	
17.520	Limonene	1027	2.95%	IFRA
17.615	beta-Phellandrene	1028	0.01%	
17.705	Unidentified isomer I	1029	0.03%	
17.826	Unidentified isomer I	1031	0.05%	
17.915	cis-beta-Ocimene	1033	0.05%	
18.591	trans-beta-Ocimene	1043	0.04%	
18.737	Unidentified	1045	0.02%	
19.011	Melon aldehyde	1050	0.1%	
19.364	gamma-Terpinene	1055	0.01%	
20.185	Octanal	1068	0.01%	
20.213	4-Nonanone	1068	0.03%	
21.143	Terpinolene	1082	0.06%	
22.098	Linalool	1097	0.76%	IFRA
22.796	trans-Rose oxide	1107	0.01%	
23.183	Unidentified	1113	0.02%	
24.010	Citronellol	1125	0.08%	IFRA
25.418	Isopulegol	1146	1.43%	
25.550	Unidentified	1148	0.01%	
25.820	Citronellal	1151	37.32%	IFRA
25.964	Menthone	1154	0.08%	
26.130	Neoisopulegol	1156	0.48%	
26.573	Isomenthone	1162	0.03%	
26.853	Isoisopulegol	1167	0.08%	
27.026	Borneol	1169	0.05%	
27.485	Neoisoisopulegol	1176	0.02%	
27.618	Terpinen-4-ol	1178	0.04%	
28.375	Unidentified	1189	0.01%	
28.618	alpha-Terpineol	1192	0.11%	
29.404	Decanal	1204	0.14%	
30.606	Nerol	1221	0.16%	



Ret. Time	Component	Ret. Idx.	Conc. %	
30.839	Citronellol	1225	10.08%	IFRA
31.551	Neral	1235	0.48%	IFRA
32.507	Geraniol	1249	20.46%	IFRA
32.770	Unidentified	1253	0.02%	
32.853	Unidentified	1254	0.04%	
33.572	Geranial	1265	0.85%	IFRA
33.934	Unidentified	1270	0.04%	
35.603	Geranyl formate	1295	0.06%	
36.226	Citronellic acid	1304	0.04%	
36.642	Carvenolide isomer	1311	0.02%	
38.030	Unidentified	1332	0.01%	
38.265	Citriodiol isomer	1335	0.17%	
38.809	alpha-Cubebene	1344	0.01%	
39.002	Citronellyl acetate	1347	2.6%	IFRA
39.089	Eugenol	1348	0.43%	IFRA
39.566	Neryl acetate	1355	0.04%	
39.715	Citriodiol isomer	1357	0.05%	
40.210	Cyclosativene	1365	0.02%	
40.249	Isodene	1366	0.04%	
40.672	alpha-Copaene	1372	0.04%	
40.879	Geranyl acetate	1375	5.62%	
41.088	Elemene isomer	1378	0.07%	
41.185	beta-Bourbonene	1380	0.1%	
41.576	beta-Elemene	1386	1.64%	
42.261	Methyleugenol	1396	0.03%	IFRA
42.906	Dodecanal	1406	0.01%	
43.385	beta-Ylangene	1414	0.03%	
43.460	beta-Caryophyllene	1415	0.5%	
44.105	beta-Copaene	1426	0.04%	
44.323	trans-alpha-Bergamotene	1429	0.09%	
44.804	Unidentified	1437	0.01%	
45.106	cis-Murrola-4(14),5-diene	1442	0.01%	
45.240	Unidentified	1444	0.02%	
45.305	trans-Murrola-3,5-diene	1445	0.04%	
45.703	alpha-Humulene	1451	0.14%	
46.115	cis-Cadina-1(6),4-diene	1458	0.03%	
46.741	trans-Cadina-1(6),4-diene	1468	0.04%	
46.923	gamma-Muurolene	1471	0.15%	
47.294	Germacrene D	1477	1.12%	
47.471	Unidentified	1480	0.02%	



Ret. Time	Component	Ret. Idx.	Conc. %	
47.781	beta-Selinene	1485	0.03%	
47.944	trans-Murrola-4(14),5-diene	1487	0.08%	
48.197	epi-Cubebol	1491	0.22%	
48.389	alpha-Muurolene	1494	0.37%	
48.645	delta-Amorphene	1498	0.02%	
48.761	Unidentified	1500	0.01%	
48.893	beta-Elemene	1503	0.03%	
49.259	gamma-Cadinene	1509	0.86%	
49.382	Cubebol	1511	0.09%	
49.573	delta-Cadinene	1514	1.5%	
49.761	cis-Calamenene	1517	0.02%	
49.830	Zonarene	1518	0.02%	
50.011	Citronellyl butyrate	1521	0.04%	
50.269	Cubebol isomer	1526	0.03%	
50.410	trans-Cadine-1,4-diene	1528	0.04%	
50.660	alpha-Cadinene	1532	0.12%	
51.360	Elemol	1544	2.72%	
51.817	Geranyl butyrate	1552	0.14%	
51.945	Unidentified	1554	0.01%	
53.009	Germacren D-4-ol	1572	0.83%	
53.314	Caryophyllene oxide	1577	0.04%	
53.569	Unidentified	1582	0.02%	
55.206	Unidentified	1610	0.1%	
55.643	10-epi-gamma-Eudesmol	1618	0.03%	
55.967	1-Epicubenol	1623	0.04%	
56.194	gamma-Eudesmol	1627	0.24%	
56.771	tau-Cadinol	1638	0.26%	
56.880	epi-alpha-Cadinol	1640	0.28%	
57.027	delta-Cadinol	1642	0.08%	
57.520	alpha-Cadinol	1651	1.01%	
57.675	Unidentified	1654	0.02%	
60.837	Farnesol isomer	1710	0.04%	IFRA
61.781	Oplopanone	1728	0.02%	
62.004	Unidentified	1732	0.02%	
62.672	Geraniol hexanoate	1745	0.01%	
66.160	Cryptomeridiol	1811	0.01%	
71.813	Citriodiol acetal isomer	1923	0.17%	
73.947	Unidentified	1967	0.02%	
74.324	Citriodiol acetal isomer	1974	0.05%	
75.186	Unidentified	1992	0.08%	



Ret. Time	Component	Ret. Idx.	Conc. %	
75.422	Unidentified	1997	0.02%	
81.612	Thiogeranial isomer	2131	0.02%	
103.775	Thiogeranial isomer	2684	0.03%	
105.832	Thiogeranial isomer	2742	0.14%	
108.054	Thiogeranial isomer	2805	0.15%	

Total Identified Compounds **99.38 %**

