



Essential Oil University

GC/MS Report

Item	Lot
Citronella (Java) EO <i>Cymbopogon winterianus</i>	3AP
Date	Analyst
12/6/2024	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:** 3AP**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Indonesia**Analysis Date:** 12/6/2024**Manufacture Date:** September 2024

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

-2.76

1.46709

0.88395



Ret. Time	Component	Ret. Idx.	Conc. %	
9.137	Unidentified	863	0.01%	
11.690	Tricyclene	921	0.03%	
11.847	alpha-Thujene	923	0.01%	
12.247	alpha-Pinene	931	0.09%	
13.140	Camphene	947	0.08%	
14.407	Sabinene	970	0.01%	
15.040	6-Methyl hept-5-en-2-one	982	0.05%	
15.346	Myrcene	987	0.1%	
16.205	Unidentified	1002	0.01%	
16.392	alpha-Phellandrene	1005	0.01%	
17.535	para-Cymene	1023	0.01%	
17.826	Limonene	1027	3.9%	IFRA
17.920	beta-Phellandrene	1029	0.01%	
17.997	Dihydromyrcenol isomer	1030	0%	
18.122	Dihydromyrcenol isomer	1032	0.02%	
18.234	cis-beta-Ocimene	1033	0.02%	
18.915	trans-beta-Ocimene	1044	0.02%	
19.067	Unidentified	1046	0%	
19.326	Melon aldehyde	1050	0.06%	
19.692	gamma-Terpinene	1056	0.02%	
20.550	4-Nonanone	1069	0.01%	
21.497	Terpinolene	1083	0.06%	
22.440	Linalool	1098	0.62%	IFRA
23.153	trans-Rose oxide	1108	0.02%	
24.365	Citronellol	1126	0.03%	IFRA
25.781	Isopulegol	1146	1%	
26.155	Citronellal	1152	42.98%	IFRA
26.313	Menthone	1154	0.07%	
26.496	Neoisopulegol	1157	0.4%	
26.934	Isomenthone	1163	0.02%	
27.221	Isopulegol	1167	0.06%	
27.391	Borneol	1170	0.02%	
27.855	Unidentified	1176	0.01%	
27.995	Terpinen-4-ol	1179	0.04%	
28.992	alpha-Terpineol	1193	0.08%	
29.780	Decanal	1204	0.12%	
30.474	Unidentified	1215	0.01%	
30.985	Nerol	1222	0.11%	
31.196	Citronellol	1225	11.95%	IFRA
31.929	Neral	1236	0.41%	IFRA



Ret. Time	Component	Ret. Idx.	Conc. %	
32.841	Geraniol	1249	18.9%	IFRA
33.215	Unidentified	1255	0.02%	
33.941	Geranial	1266	0.62%	IFRA
34.324	Citronellyl formate	1271	0.02%	
36.001	Geranyl formate	1296	0.02%	
36.509	Citronellic acid	1303	0.02%	
37.035	Unidentified	1311	0.01%	
38.635	Citriodiol isomer	1336	0.16%	
39.237	alpha-Cubebene	1345	0.01%	
39.396	Citronellyl acetate	1347	2.08%	IFRA
39.479	Eugenol	1349	0.59%	IFRA
39.970	Unidentified	1356	0.01%	
40.077	Citriodiol isomer	1358	0.04%	
40.691	Unidentified	1367	0.01%	
41.110	alpha-Copaene	1373	0.03%	
41.253	Geranyl acetate	1376	2.8%	
41.522	Elemene isomer	1380	0.08%	
41.623	beta-Bourbonene	1381	0.09%	
42.006	beta-Elemene	1387	1.64%	
42.301	Unidentified	1392	0.01%	
43.325	Unidentified	1408	0.01%	
43.678	Unidentified	1413	0.01%	
43.840	Unidentified	1416	0.03%	
43.897	beta-Caryophyllene	1417	0.16%	
44.548	beta-Copaene	1427	0.03%	
44.772	Unidentified	1431	0.01%	
44.848	Unidentified	1432	0.02%	
45.440	Unidentified	1442	0.01%	
45.544	Unidentified	1443	0.02%	
45.742	Unidentified	1446	0.03%	
46.141	alpha-Humulene	1453	0.09%	
46.559	cis-Cadina-1(6),4-diene	1459	0.03%	
47.179	cis-Murrola-4(14),5-diene	1469	0.04%	
47.365	gamma-Murolene	1472	0.14%	
47.738	Germacrene D	1478	1.57%	
47.894	Unidentified	1481	0.01%	
48.229	beta-Selinene	1486	0.02%	
48.401	gamma-Amorphene	1489	0.06%	
48.632	epi-Cubebol	1493	0.11%	
48.826	alpha-Murolene	1496	0.37%	



Ret. Time	Component	Ret. Idx.	Conc. %	
49.342	beta-Elemene	1504	0.03%	
49.701	gamma-Cadinene	1510	0.55%	
49.812	epi-Cubebol	1512	0.05%	
50.014	delta-Cadinene	1516	1.43%	
50.266	Zonarene	1520	0.01%	
50.715	Unidentified	1527	0.02%	
50.857	trans-Cadina-1,4-diene	1530	0.02%	
51.107	alpha-Cadinene	1534	0.09%	
51.785	Elemol	1545	2.62%	
53.320	Unidentified	1571	0.01%	
53.450	Germacren D-4-ol	1574	0.99%	
55.630	Unidentified	1611	0.06%	
56.092	Eudesmol analogue	1619	0.02%	
56.420	1-Epicubenol	1625	0.02%	
56.641	gamma-Eudesmol	1629	0.16%	
57.215	tau-Cadinol	1639	0.2%	
57.326	epi-alpha-Cadinol	1641	0.25%	
57.472	delta-Cadinol	1644	0.07%	
57.963	alpha-Cadinol	1652	0.88%	
58.114	Unidentified	1655	0.02%	
58.238	Unidentified	1657	0.01%	
58.807	Unidentified	1667	0.01%	
61.282	(2E,6E)-Farnesol	1712	0.01%	IFRA
62.443	Unidentified	1734	0.01%	
64.014	Unidentified	1763	0.02%	
72.461	Unidentified	1928	0.01%	
75.661	Unidentified	1994	0.02%	
106.411	Unidentified	2746	0.04%	
108.671	Unidentified	2811	0.02%	

Total Identified Compounds **99.56 %**

