



Essential Oil University

GC/MS Report

Item	Lot
Lemon Eucalyptus EO <i>Eucalyptus citriodora</i>	2L
Date	Analyst
1/17/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Lemon Eucalyptus EO, meets the expected chemical profile for authentic essential oil of *Eucalyptus citriodora*. 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:** Lemon Eucalyptus EO**Botanical Name:** Eucalyptus citriodora**Lot Number:** 2L**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** China**Analysis Date:** 1/17/2025**Manufacture Date:** October 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

0.00

1.45541

0.87204



Ret. Time	Component	Ret. Idx.	Conc. %	
3.588	1-Methyl-3-cyclopentene	608	0.01%	
3.733	Unidentified	623	0%	
3.974	3-Methylbutanal	647	0.01%	
8.782	Unidentified	858	0%	
8.917	Unidentified	861	0.01%	
8.978	Unidentified	863	0.01%	
10.976	Isobutyl isobutyrate	911	0.06%	
11.644	alpha-Thujene	924	0.02%	
12.044	alpha-Pinene	931	0.29%	
14.179	Sabinene	970	0.06%	
14.477	beta-Pinene	976	0.48%	
15.102	Myrcene	987	0.09%	
16.142	Unidentified	1005	0.01%	
16.468	Isoamyl isobutyrate	1010	0.02%	
16.674	2-Methylbutyl isobutyrate	1014	0.01%	
16.801	alpha-Terpinene	1016	0.01%	
17.284	para-Cymene	1023	0.03%	
17.575	Limonene	1027	0.14%	IFRA
17.685	beta-Phellandrene	1029	0.01%	
17.755	1,8-Cineole	1030	0.79%	
17.886	Dihydromyrcenol	1032	0.05%	
17.976	cis-beta-Ocimene	1034	0.04%	
18.648	trans-beta-Ocimene	1044	0.03%	
18.796	Unidentified	1046	0.02%	
19.074	Bergamal	1051	0.12%	
19.428	gamma-Terpinene	1056	0.11%	
20.273	Unidentified	1069	0.04%	
21.217	Terpinolene	1084	0.06%	
22.169	Linalool	1098	0.49%	IFRA
22.868	cis-Rose oxide	1109	0.04%	
23.262	Unidentified	1114	0.01%	
23.967	trans-Rose oxide	1125	0.02%	
24.091	Citronellol	1126	0.04%	IFRA
25.515	Isopulegol	1147	4.72%	
25.626	Unidentified	1149	0.07%	
25.938	Citronellal	1153	68.37%	IFRA
26.005	Unidentified	1154	0.08%	
26.238	Neoisopulegol	1158	3.3%	
26.667	Isomenthone	1164	0.02%	
26.944	Isoisopulegol	1168	0.24%	



Ret. Time	Component	Ret. Idx.	Conc. %	
27.077	Unidentified	1170	0.02%	
27.577	Neoisoisopulegol	1177	0.06%	
27.710	Terpinen-4-ol	1179	0.02%	
28.705	alpha-Terpineol	1193	0.09%	
29.893	trans-Pulegol	1211	0.03%	
30.683	Nerol	1223	0.02%	
30.862	Citronellol	1225	3.17%	IFRA
32.444	Geraniol	1248	0.03%	IFRA
32.808	Unidentified	1254	0.01%	
32.956	Methyl citronellate	1256	0.05%	
33.656	Geranial	1266	0.01%	IFRA
34.023	Unidentified	1272	0%	
36.259	Citronellic acid	1305	0.05%	
36.405	4-Vinyl guaicol	1307	0.06%	
36.722	Unidentified	1312	0.01%	
38.348	Citriodiol isomer	1337	0.6%	
39.085	Citronellyl acetate	1348	0.58%	IFRA
39.135	Eugenol	1349	0.1%	IFRA
39.796	Citriodiol isomer	1359	0.33%	
40.447	Unidentified	1369	0.01%	
40.951	Geranyl acetate	1376	0.01%	
41.665	beta-Elementene	1387	0.02%	
41.854	Unidentified	1390	0.08%	
42.347	Methyleugenol	1398	0.08%	IFRA
43.562	beta-Caryophyllene	1417	0.56%	
45.803	alpha-Humulene	1453	0.03%	
47.389	Germacrene D	1478	0.02%	
48.277	Bicyclogermacrene	1493	0.03%	
49.668	delta-Cadinene	1516	0.02%	
53.416	Caryophyllene oxide	1579	0.03%	
53.630	Unidentified	1583	0.01%	
63.396	Benzyl benzoate	1758	0.17%	IFRA
63.639	Benzyl benzoate	1763	0.18%	IFRA
66.734	Unidentified	1822	0.02%	
69.500	Unidentified	1876	0.27%	
69.779	Unidentified	1882	0.03%	
69.995	Unidentified	1886	0.31%	
70.080	Unidentified	1888	0.03%	
70.525	Unidentified	1896	0.04%	
71.923	Citriodiol acetal isomer	1925	4.77%	



Ret. Time	Component	Ret. Idx.	Conc. %	
72.512	Citriodiol acetal isomer	1937	0.17%	
73.248	Citriodiol acetal isomer	1952	0.08%	
73.545	Unidentified	1958	0.02%	
73.707	Unidentified	1962	0.04%	
73.835	Unidentified	1964	0.02%	
74.058	Unidentified	1969	0.56%	
74.384	Citriodiol acetal isomer	1976	0.58%	
74.426	Citriodiol acetal isomer	1977	0.62%	
74.548	Citriodiol acetal isomer	1979	0.22%	
74.626	Citriodiol acetal isomer	1981	0.22%	
74.919	Citriodiol acetate isomer	1987	0.07%	
75.296	Unidentified	1994	0.09%	
75.526	Unidentified	1999	0.02%	
77.001	Unidentified	2031	0.02%	
77.222	Unidentified	2036	0.01%	
78.005	Unidentified	2053	0.02%	
78.254	Unidentified	2058	0.11%	
78.363	Unidentified	2060	0.17%	
78.530	Unidentified	2064	0.02%	
78.702	Unidentified	2068	0.11%	
79.105	Unidentified isomer I	2076	0.06%	
79.208	Unidentified isomer I	2078	0.08%	
79.343	Unidentified	2081	0.02%	
79.534	Unidentified	2085	0.01%	
80.213	Unidentified	2100	0.03%	
80.926	Unidentified isomer I	2116	0.04%	
81.069	Unidentified	2119	0.16%	
81.125	Unidentified	2121	0.15%	
97.222	Unidentified	2508	0.03%	
100.114	Unidentified	2584	0.01%	
100.639	Unidentified isomer II	2598	0.14%	
100.785	Unidentified isomer II	2602	0.69%	
100.914	Unidentified isomer II	2606	0.28%	
101.091	Unidentified isomer II	2611	0.62%	
101.150	Unidentified isomer II	2612	0.31%	
101.635	Unidentified	2625	0.01%	
101.768	Unidentified	2629	0.02%	
103.885	Unidentified	2687	2.3%	
105.946	Unidentified	2745	0.02%	

Total Identified Compounds **92.76 %**

