



# Essential Oil University

## GC/MS Report

Item	Lot
<b>Lemon Eucalyptus EO</b> <i>Eucalyptus citriodora</i>	<b>1C</b>
Date	Analyst
<b>3/4/2025</b>	<b>Dr. Robert S. Pappas</b>

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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:** 1C

**Production Method:** Steam distilled

**Sample Type:** EO - Single

**Country of Origin:** China

**Analysis Date:** 3/4/2025

**Manufacture Date:** February 2025

## GC/MS

**Inst. ID:** Shimadzu GCMS-QP2010Ultra

**Injection Type:** Split

**Split Ratio:** 24.4

**Column Type:** ZB-5

**Injection Volume:** 0.1  $\mu\text{L}$

**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

-04

1.45543

0.87216



Ret. Time	Component	Ret. Idx.	Conc. %	
3.573	3-Methylcyclopentene	606	0.01%	
3.963	3-Methylbutanal	646	0.01%	
8.893	Unidentified isomer I	861	0.01%	
8.952	Unidentified isomer I	862	0.01%	
10.951	Isobutyl isobutyrate	911	0.05%	
11.614	alpha-Thujene	923	0.02%	
12.010	alpha-Pinene	930	0.29%	
14.141	Sabinene	970	0.05%	
14.438	beta-Pinene	975	0.49%	
15.067	Myrcene	987	0.1%	
16.435	Isoamyl isobutyrate	1010	0.02%	
16.637	2-Methylbutyl isobutyrate	1013	0.01%	
16.761	alpha-Terpinene	1015	0.01%	
17.241	para-Cymene	1022	0.02%	
17.532	Limonene	1027	0.14%	IFRA
17.650	beta-Phellandrene	1029	0.02%	
17.709	1,8-Cineole	1029	0.81%	
17.843	Dihydromyrcenol	1032	0.04%	
17.933	cis-beta-Ocimene	1033	0.04%	
18.605	trans-beta-Ocimene	1043	0.03%	
18.754	Unidentified	1046	0.02%	
19.028	Melonal	1050	0.11%	
19.382	gamma-Terpinene	1055	0.12%	
20.224	para-Mentha-3,8-diene	1068	0.04%	
21.169	Terpinolene	1083	0.06%	
22.119	Linalool	1097	0.48%	IFRA
22.818	cis-Rose oxide	1108	0.05%	
23.210	Unidentified	1113	0.01%	
23.918	trans-Rose oxide	1124	0.02%	
24.045	Unidentified	1126	0.03%	
25.458	Isopulegol	1146	4.9%	
25.571	para-Menth-3-en-8-ol	1148	0.07%	
25.881	Citronellal	1152	67.49%	IFRA
26.178	Neoisopulegol	1157	3.62%	
26.612	Isomenthone	1163	0.02%	
26.884	Isoisopulegol	1167	0.25%	
27.031	Unidentified	1169	0.01%	
27.515	Neoisoisopulegol	1176	0.06%	
27.651	Terpinen-4-ol	1178	0.02%	
28.648	alpha-Terpineol	1193	0.09%	



Ret. Time	Component	Ret. Idx.	Conc. %	
29.826	trans-Pulegol	1210	0.02%	
30.629	Nerol	1222	0.02%	
30.801	Citronellol	1224	3.07%	IFRA
32.392	Geraniol	1248	0.03%	IFRA
32.903	Methyl citronellate	1255	0.04%	
36.210	Citronellic acid	1304	0.05%	
36.340	4-Vinyl guaiacol	1306	0.06%	
36.660	Unidentified	1311	0.01%	
38.288	Citriodiol	1336	0.6%	
39.019	Citronellyl acetate	1347	0.7%	IFRA
39.736	Citriodiol isomer	1358	0.35%	
40.390	Citriodiol isomer	1368	0.01%	
40.881	Geranyl acetate	1375	0.01%	
41.589	beta-Elemene	1386	0.02%	
41.793	Unidentified	1389	0.08%	
42.282	Methyleugenol	1397	0.09%	IFRA
43.488	beta-Caryophyllene	1416	0.58%	
45.735	alpha-Humulene	1452	0.04%	
47.316	Germacrene D	1477	0.03%	
48.210	Bicyclogermacrene	1492	0.03%	
49.599	delta-Cadinene	1515	0.02%	
53.338	Caryophyllene oxide	1578	0.02%	
69.430	Unidentified isomer II	1875	0.25%	
69.924	Unidentified isomer II	1885	0.37%	
70.448	Unidentified	1895	0.04%	
71.850	Citriodiol acetate	1923	5.35%	
72.437	Citriodiol acetal isomer	1936	0.18%	
73.178	Citriodiol acetal isomer	1951	0.07%	
73.982	Unidentified isomer II	1967	0.58%	
74.305	Citriodiol acetal isomer	1974	0.58%	
74.350	Citriodiol acetal isomer	1975	0.75%	
74.469	Citriodiol acetal isomer	1977	0.22%	
74.550	Citriodiol acetal isomer	1979	0.26%	
74.848	Citriodiol acetal isomer	1985	0.08%	
75.218	Citriodiol acetal isomer	1993	0.06%	
76.930	Citriodiol acetal isomer	2029	0.02%	
77.156	Citriodiol acetal isomer	2034	0.01%	
77.923	Citriodiol acetal isomer	2051	0.02%	
78.180	Citriodiol acetal isomer	2056	0.1%	
78.294	Unidentified	2059	0.17%	



Ret. Time	Component	Ret. Idx.	Conc. %
78.455	Citriodiol acetal isomer	2062	0.02%
78.621	Citriodiol acetal isomer	2066	0.11%
79.029	Unidentified isomer III	2075	0.05%
79.133	Unidentified isomer III	2077	0.07%
79.271	Citriodiol acetal isomer	2080	0.02%
79.451	Citriodiol acetal isomer	2084	0.02%
80.134	Unidentified	2098	0.02%
80.845	Unidentified	2114	0.04%
80.986	Citriodiol acetal isomer	2117	0.15%
81.057	Unidentified	2119	0.16%
96.228	Citriodiol acetal isomer	2482	0.02%
97.144	Citriodiol acetal isomer	2506	0.02%
100.568	Citriodiol acetal isomer	2596	0.13%
100.715	Citriodiol acetal isomer	2600	0.45%
100.745	Citriodiol acetal isomer	2601	0.23%
100.845	Citriodiol acetal isomer	2604	0.31%
101.016	Citriodiol acetal isomer	2609	0.73%
101.090	Citriodiol acetal isomer	2611	0.29%
101.694	Citriodiol acetal isomer	2627	0.05%
103.819	Unidentified isomer III	2685	2.45%
105.874	Citriodiol acetal isomer	2743	0.03%

Total Identified Compounds **95.63 %**

