



Essential Oil University

GC/MS Report

Item	Lot
Lemon Myrtle EO <i>Backhousia citriodora</i>	9A
Date	Analyst
4/11/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Lemon Myrtle EO, meets the expected chemical profile for authentic essential oil of *Backhousia 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 Myrtle EO**Botanical Name:** Backhousia citriodora**Lot Number:** 9A**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Australia**Analysis Date:** 4/11/2025**Manufacture Date:** January 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

0.00

1.48651

0.89216



Ret. Time	Component	Ret. Idx.	Conc. %	
3.739	Unidentified	652	0.01%	
4.193	Isovaleric aldehyde	671	0.01%	
4.537	Unidentified	686	0.01%	
5.397	Isopentyl alcohol	723	0.01%	
5.483	2-Methylbutanol	727	0%	
6.187	3-Methylenecyclohexene	757	0.01%	
6.355	Methyl 2-methylbutyrate	764	0.03%	
7.025	Octane	793	0%	
8.998	Hex-(3Z)-enol	845	0.09%	
9.465	Hex-(2E)-enol	856	0%	
9.552	Hexanol	858	0.04%	
10.190	Unidentified	874	0%	
11.616	Unidentified	907	0%	
15.639	6-Methyl-hept-5-en-2-one	977	1.12%	
15.972	Myrcene	983	0.21%	
16.051	2,3-Dehydro-1,8-cineole	985	0.23%	
16.147	6-Methyl-hept-5-en-2-ol	986	0.1%	
16.969	Menthatriene analogue	1001	0.05%	
18.193	Menthatriene analogue	1019	0.06%	
18.512	Limonene	1024	0.06%	IFRA
18.907	cis-beta-Ocimene	1030	0%	
19.601	trans-beta-Ocimene	1040	0.03%	
20.040	Melon aldehyde	1047	0%	
21.235	cis-Linalool oxide (furanoid)	1065	0.01%	
22.225	Terpinolene	1080	0%	
22.311	trans-Linalool oxide (furanoid)	1081	0.01%	
22.539	para-Cymenene	1084	0.04%	
22.636	Rosefuran	1086	0.02%	
22.745	Unidentified	1087	0%	
23.176	Linalool	1094	0.86%	IFRA
23.414	Unidentified	1097	0%	
23.547	Nonanal	1099	0.01%	
23.833	Unidentified	1104	0.01%	
24.114	trans-4,8-Dimethyl-nona-1,3,7-triene	1108	0.02%	
24.310	Unidentified	1110	0%	
24.707	trans-para-Mentha-2,8-dienol	1116	0.04%	
25.713	cis-para-Mentha-2,8-dienol	1131	0.03%	
25.860	Epiphotocitral A	1133	0%	
25.981	Unidentified	1134	0.01%	
26.175	exo-Isocitral	1137	0.25%	IFRA



Ret. Time	Component	Ret. Idx.	Conc. %	
26.568	Isopulegol	1143	0.03%	
26.803	Citronellal	1146	0.28%	IFRA
27.072	Unidentified	1150	0.01%	
27.272	Neoisopulegol	1153	0.01%	
27.434	Isoneral	1155	1.54%	IFRA
27.995	Unidentified	1163	0%	
28.162	para-Mentha-1,5-dien-8-ol	1166	0.18%	
28.747	Isogeranial	1174	2.52%	IFRA
28.827	Unidentified	1175	0.29%	
29.141	exo-Isocitral	1180	0.1%	IFRA
29.230	Unidentified	1181	0.01%	
29.549	Methyl salicylate	1185	0.01%	
29.680	Unidentified	1187	0.01%	
29.840	alpha-Terpineol	1190	0.09%	
29.872	Unidentified	1190	0.12%	
30.151	Unidentified	1194	0.08%	
30.610	Unidentified	1201	0.24%	
31.373	Unidentified	1212	0.06%	
31.817	Nerol	1218	0.94%	
32.030	Citronellol	1221	0.12%	IFRA
32.927	Neral	1234	37%	IFRA
33.604	Geraniol	1244	1.77%	IFRA
33.853	Piperitone	1248	0.05%	
34.601	Unidentified	1259	0.04%	
35.004	Geranial	1264	50.06%	IFRA
35.728	trans-Carvone oxide	1275	0.06%	IFRA
36.068	trans-Anethole	1280	0.02%	
36.841	Geranyl formate	1291	0.01%	
37.501	Unidentified	1301	0.01%	
38.268	Unidentified	1312	0.01%	
38.382	Methyl geranate	1314	0.01%	
39.135	delta-Elemene	1325	0.01%	
39.223	Unidentified	1327	0.01%	
39.912	Geranic acid	1337	0.01%	
40.329	Eugenol	1344	0.01%	IFRA
40.865	Unidentified	1352	0.01%	
41.003	Unidentified	1354	0.01%	
41.604	Unidentified	1363	0.02%	
42.022	alpha-Copaene	1369	0.01%	
42.119	Geranyl acetate	1371	0.01%	



Ret. Time	Component	Ret. Idx.	Conc. %	
42.903	beta-Elemene	1383	0.09%	
44.051	alpha-Gurjunene	1400	0.01%	
44.654	Unidentified	1410	0.01%	
44.838	beta-Caryophyllene	1412	0.24%	
45.438	gamma-Elemene	1422	0.02%	
46.017	Aroaromodendrene	1431	0.01%	
46.910	beta-Caryophyllene	1445	0.01%	
47.091	alpha-Humulene	1448	0.02%	
47.365	Alloaromodendrene	1453	0.04%	
48.680	Dauca-5,8-diene	1474	0.01%	
49.163	beta-Selinene	1481	0.01%	
49.294	Viridiflorene	1483	0.03%	
49.574	Bicyclogermacrene	1488	0.14%	
50.941	delta-Cadinene	1510	0.03%	
53.371	Germacrene B	1551	0.04%	
54.026	Unidentified	1562	0.01%	
54.401	Spathulenol	1568	0.03%	
54.730	Caryophyllene oxide	1574	0.01%	
54.948	Gleenol	1577	0.02%	
55.452	Viridiflorol	1586	0.01%	
55.594	Guaiol	1588	0.01%	
55.884	Unidentified	1593	0%	
56.188	Rosifoliol	1598	0%	
57.172	Unidentified	1615	0%	
57.625	Unidentified	1623	0.02%	

Total Identified Compounds **98.97 %**

