



Essential Oil University

GC/MS Report

Item	Lot
Lemon Myrtle EO <i>Backhousia citriodora</i>	3A
Date	Analyst
6/10/2025	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:** 3A**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Australia**Analysis Date:** 6/10/2025**Manufacture Date:** May 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

1.48661

0.89257



Ret. Time	Component	Ret. Idx.	Conc. %	
3.733	Unidentified	652	0.01%	
4.183	Isovaleric aldehyde	671	0.01%	
5.383	Isopentyl alcohol	723	0.01%	
5.468	2-Methylbutanol	726	0.01%	
6.165	3-Methylenecyclohexene	756	0.01%	
6.333	Methyl 2-methylbutyrate	763	0.04%	
8.966	Hex-(3Z)-enol	844	0.13%	
9.490	Hex-(2E)-enol	857	0.01%	
9.518	Hexanol	858	0.05%	
10.146	Unidentified	873	0%	
11.562	Unidentified	906	0%	
15.570	6-Methyl-hept-5-en-2-one	976	1.31%	
15.900	Myrcene	982	0.22%	
15.978	2,3-Dehydro-1,8-cineole	983	0.28%	
16.081	6-Methyl-hept-5-en-2-ol	985	0.12%	
16.900	Menthatriene analogue	1000	0.06%	
18.123	Menthatriene analogue	1018	0.07%	
18.444	Limonene	1023	0.04%	IFRA
19.533	trans-beta-Ocimene	1039	0.04%	
19.979	Melonal	1046	0%	
21.164	cis-Linalool oxide (furanoid)	1064	0.02%	
22.165	Terpinolene	1079	0.01%	
22.242	trans-Linalool oxide (furanoid)	1080	0.01%	
22.474	para-Cymenene	1083	0.05%	
22.573	Rosefuran	1085	0.02%	
22.655	Unidentified	1086	0%	
22.812	Unidentified	1088	0.01%	
23.111	Linalool	1093	1.02%	IFRA
23.358	Unidentified	1097	0.01%	
23.503	Nonanal	1099	0.01%	
23.769	Unidentified	1103	0.02%	
24.049	trans-4,8-Dimethyl-nona-1,3,7-triene	1107	0.03%	
24.246	Unidentified	1109	0.01%	
24.641	trans-para-Mentha-2,8-dienol	1115	0.05%	
25.647	cis-para-Mentha-2,8-dienol	1130	0.04%	
25.775	Epiphotocitral A	1131	0.01%	
25.919	Unidentified	1133	0.01%	
26.111	exo-Isocitral	1136	0.19%	IFRA
26.500	Isopulegol	1142	0.04%	
26.734	Citronellal	1145	0.32%	IFRA



Ret. Time	Component	Ret. Idx.	Conc. %	
27.010	Unidentified	1149	0.01%	
27.206	Neoisopulegol	1152	0.01%	
27.365	Isoneral	1154	1.41%	IFRA
27.655	Unidentified	1158	0.01%	
27.939	Unidentified	1162	0.01%	
28.092	para-Mentha-1,5-dien-8-ol	1165	0.21%	
28.676	Isogeranial	1173	2.27%	IFRA
28.758	Unidentified	1174	0.4%	
29.074	Unidentified	1179	0.11%	
29.155	Unidentified	1180	0.02%	
29.480	Methyl salicylate	1184	0.01%	
29.619	Unidentified	1186	0.01%	
29.748	alpha-Terpineol	1188	0.11%	
29.799	Unidentified	1189	0.15%	
30.079	Unidentified	1193	0.11%	
30.539	Unidentified	1200	0.32%	
31.298	Unidentified	1211	0.09%	
31.444	Unidentified	1213	0.01%	
31.748	Nerol	1217	1.19%	
31.959	Citronellol	1220	0.21%	IFRA
32.525	Unidentified	1228	0.03%	
32.852	Neral	1233	38.21%	IFRA
33.531	Geraniol	1243	2%	IFRA
33.780	Piperitone	1247	0.06%	
34.533	Unidentified	1258	0.07%	
34.927	Geranial	1263	47.28%	IFRA
35.307	Unidentified	1269	0.01%	
35.652	trans-Carvone oxide	1274	0.08%	IFRA
35.994	trans-Anethole	1279	0.02%	
36.768	Geranyl formate	1290	0.01%	
37.421	Unidentified	1300	0.01%	
37.717	Unidentified	1304	0.01%	
38.180	Unidentified	1311	0.01%	
38.301	Methyl geranate	1313	0.01%	
39.052	delta-Elemene	1324	0.01%	
39.148	Unidentified	1326	0.02%	
39.275	Elemene isomer	1328	0%	
39.397	Unidentified	1329	0.01%	
39.837	Geranic acid	1336	0.03%	
39.991	Unidentified	1338	0.02%	



Ret. Time	Component	Ret. Idx.	Conc. %	
40.779	Unidentified	1350	0.02%	
40.922	Unidentified	1353	0.02%	
41.525	Unidentified	1362	0.04%	
41.931	alpha-Copaene	1368	0.02%	
42.039	Geranyl acetate	1369	0.01%	
42.346	Unidentified	1374	0.01%	
42.817	beta-Elemene	1381	0.11%	
43.962	alpha-Gurjunene	1399	0.01%	
44.573	Unidentified	1408	0.01%	
44.746	beta-Caryophyllene	1411	0.26%	
45.347	gamma-Elemene	1421	0.02%	
45.925	Aromadendrene	1430	0.01%	
46.593	Unidentified	1440	0.01%	
46.816	Unidentified	1444	0.01%	
46.998	alpha-Humulene	1447	0.02%	
47.271	Alloaromodendrene	1451	0.05%	
48.084	Unidentified	1464	0.01%	
48.582	Unidentified	1472	0.01%	
49.067	beta-Selinene	1480	0.02%	
49.202	Viridiflorene	1482	0.03%	
49.476	Bicyclogermacrene	1486	0.16%	
49.659	Unidentified	1489	0.01%	
50.844	delta-Cadinene	1508	0.03%	
51.041	Unidentified	1512	0.01%	
51.696	trans-Cadina-1,4-diene	1523	0.01%	
53.270	Germacrene B	1549	0.05%	
53.937	Unidentified	1560	0.01%	
54.304	Spathulenol	1567	0.04%	
54.629	Caryophyllene oxide	1572	0.01%	
54.847	Gleenol	1576	0.03%	
55.357	Viridiflorol	1584	0.02%	
55.490	Guaiol	1586	0.01%	
56.079	Rosifoliol	1596	0%	
57.068	Eudesm-5-en-11-ol	1614	0%	
57.530	Unidentified	1622	0.02%	
58.996	Unidentified	1648	0.01%	
82.855	Unidentified	2118	0.01%	

Total Identified Compounds **98.28 %**

