



Essential Oil University

GC/MS Report

Item	Lot
Tea Tree EO <i>Melaleuca alternifolia</i>	9AG
Date	Analyst
7/23/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Tea Tree EO, meets the expected chemical profile for authentic essential oil of *Melaleuca alternifolia*. 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:** Tea Tree EO**Botanical Name:** Melaleuca alternifolia**Lot Number:** 9AG**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Australia**Analysis Date:** 7/23/2025**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

+9.96

1.47772

0.89645



Ret. Time	Component	Ret. Idx.	Conc. %	
8.454	Hex-(3Z)-enol	849	0.01%	
11.634	alpha-Thujene	923	0.73%	
12.035	alpha-Pinene	931	2.3%	
12.917	Camphene	947	0.01%	
14.165	Sabinene	970	0.22%	
14.462	beta-Pinene	975	0.61%	
15.087	Myrcene	987	0.81%	
15.990	Pseudolimonene	1003	0.01%	
16.132	alpha-Phellandrene	1005	0.39%	
16.648	1,4-Cineole	1013	0.03%	
16.809	alpha-Terpinene	1016	9.9%	
17.270	para-Cymene	1023	2.36%	
17.559	Limonene	1027	0.92%	IFRA
17.662	beta-Phellandrene	1029	0.63%	
17.736	1,8-Cineole	1030	2.97%	
18.636	trans-beta-Ocimene	1044	0.01%	
19.473	gamma-Terpinene	1057	20.53%	
20.182	trans-4-Thujanol	1068	0.03%	
21.205	Terpinolene	1083	3.25%	
21.521	para-Cymenene	1088	0.06%	
22.148	Linalool	1098	0.05%	IFRA
22.221	trans-Sabinene hydrate	1099	0.08%	
23.043	Unidentified	1111	0.01%	
23.461	endo-Fenchol	1117	0.01%	
23.819	cis-para-Menth-2-en-1-ol	1122	0.23%	
23.984	Unidentified	1125	0.01%	
24.513	Unidentified	1132	0.02%	
24.600	Unidentified	1134	0.02%	
24.919	Unidentified	1138	0%	
25.045	trans-para-Menth-2-en-1-ol	1140	0.16%	
25.328	Unidentified	1144	0.01%	
25.913	trans-beta-Terpineol	1153	0.01%	
27.087	Borneol	1170	0.01%	
27.839	Terpinen-4-ol	1181	43.08%	
28.123	para-Cymen-8-ol	1185	0.07%	
28.513	Unidentified	1191	0.01%	
28.704	alpha-Terpineol	1193	3.13%	
28.810	cis-Piperitol	1195	0.01%	
29.630	trans-Piperitol	1207	0.08%	
29.943	Unidentified	1212	0.01%	



Ret. Time	Component	Ret. Idx.	Conc. %	
30.664	Nerol	1222	0.03%	
31.709	Unidentified	1238	0.01%	
32.431	Geraniol	1248	0.01%	IFRA
32.673	Unidentified	1252	0.01%	
32.909	Unidentified	1255	0.01%	
34.023	cis-Ascaridol glycol	1272	0.03%	
35.201	trans-Ascaridol glycol	1289	0.02%	
35.659	Carvacrol	1296	0.01%	
35.931	Unidentified	1300	0.01%	
36.083	Unidentified	1302	0.01%	
36.646	Unidentified	1311	0%	
37.164	Unidentified	1318	0.03%	
37.877	delta-Elemene	1329	0.03%	
38.872	alpha-Cubebene	1345	0.03%	
40.411	Isoledene	1368	0.04%	
40.743	alpha-Copaene	1373	0.11%	
40.956	Unidentified	1376	0.02%	
41.633	beta-Elemene	1387	0.01%	
41.872	Unidentified	1390	0.01%	
42.319	Unidentified	1397	0.02%	
42.749	alpha-Gurjunene	1404	0.22%	
42.993	beta-Maaliene	1408	0.02%	
43.145	Unidentified	1410	0.01%	
43.523	beta-Caryophyllene	1416	0.25%	
44.001	gamma-Maaliene	1424	0.05%	
44.192	beta-Gurjunene (Calarene)	1427	0.01%	
44.438	alpha-Maaliene	1431	0.05%	
44.708	Aromadendrene	1435	0.74%	
44.801	Unidentified	1437	0.09%	
44.922	Unidentified	1439	0.04%	
45.164	Selina-5,11-diene	1443	0.11%	
45.230	Unidentified	1444	0.02%	
45.371	Cadina-3,5-diene	1446	0.07%	
45.611	Valerna-4,7(11)-diene	1450	0.03%	
45.770	alpha-Humulene	1452	0.06%	
45.898	Unidentified	1454	0.01%	
46.043	Alloaromadendrene	1457	0.36%	
46.810	trans-Cadina-1(6),4-diene	1469	0.23%	
46.980	Unidentified	1472	0.02%	
47.741	delta-Selinene	1484	0.11%	



Ret. Time	Component	Ret. Idx.	Conc. %	
47.834	beta-Selinene	1485	0.14%	
47.978	Viridiflorene	1488	0.65%	
48.249	Bicyclogermacrene	1492	0.43%	
48.448	alpha-Muurolene	1495	0.1%	
48.655	Unidentified	1499	0.02%	
48.813	Unidentified	1501	0.03%	
49.318	gamma-Cadinene	1510	0.02%	
49.634	delta-Cadinene	1515	0.72%	
49.830	cis-Calamenene	1518	0.09%	
49.902	Zonarene	1520	0.2%	
50.239	Unidentified	1525	0.01%	
50.481	trans-Cadine-1,4-diene	1529	0.13%	
50.980	alpha-Calacorene	1538	0.01%	
51.899	Unidentified	1553	0.01%	
52.224	Gleenol	1559	0.11%	
52.496	Unidentified	1563	0.01%	
52.663	Unidentified	1566	0.05%	
52.692	Palustrol	1567	0.04%	
53.071	Spathulenol	1573	0.07%	
53.406	Unidentified	1579	0.02%	
53.603	Globulol	1582	0.38%	
54.106	Viridiflorol	1591	0.19%	
54.247	Guaiol	1593	0.16%	
54.703	Ledol	1601	0.05%	
54.833	Rosifoliol	1603	0.09%	
55.821	Eudesmol analogue	1621	0.16%	
56.035	Epicubenol	1625	0.19%	
56.298	Unidentified	1629	0.04%	
56.880	Epicubenol isomer	1640	0.11%	
57.093	alpha-Muurolol	1643	0.04%	
57.236	Unidentified	1646	0.01%	

Total Identified Compounds **99.41 %**

