



Essential Oil University

GC/MS Report

Item	Lot
Tea Tree EO <i>Melaleuca alternifolia</i>	3T
Date	Analyst
1/14/2025	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:** 3T**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Australia; South Africa**Analysis Date:** 1/14/2025**Manufacture Date:** August 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

1.47709

0.89798



Ret. Time	Component	Ret. Idx.	Conc. %	
4.132	Unidentified	656	0.01%	
8.575	Hex-(3Z)-enol	848	0.05%	
11.829	alpha-Thujene	923	0.91%	
12.234	alpha-Pinene	930	2.36%	
14.389	Sabinene	970	0.1%	
14.687	beta-Pinene	975	0.7%	
15.322	Myrcene	987	0.83%	
16.246	Hex-(3Z)-enyl acetate	1003	0.03%	
16.375	alpha-Phellandrene	1005	0.43%	
16.893	1,4-Cineole	1013	0.02%	
17.054	alpha-Terpinene	1015	10.45%	
17.514	para-Cymene	1022	2.24%	
17.813	Limonene	1027	0.95%	IFRA
17.935	beta-Phellandrene	1029	0.79%	
17.983	1,8-Cineole	1030	3.53%	
18.896	trans-beta-Ocimene	1044	0.01%	
19.726	gamma-Terpinene	1056	20.23%	
20.442	trans-Sabinene hydrate	1067	0.05%	
21.489	Terpinolene	1083	3.5%	
21.803	para-Cymenene	1088	0.03%	
22.425	Linalool	1098	0.06%	IFRA
22.500	cis-Sabinene hydrate	1099	0.05%	
23.350	Unidentified	1111	0.01%	
24.108	cis-para-Menth-2-en-1-ol	1122	0.2%	
24.885	Unidentified	1133	0.02%	
25.336	trans-para-Menth-2-en-1-ol	1140	0.17%	
27.382	Unidentified	1170	0.01%	
28.114	Terpinen-4-ol	1180	43.67%	
28.407	para-Cymen-8-ol	1184	0.07%	
28.801	Unidentified	1190	0.05%	
28.997	alpha-Terpineol	1193	3.36%	
29.114	cis-Piperitol	1195	0.07%	
29.936	trans-Piperitol	1207	0.14%	
34.325	cis-Ascaridol glycol	1271	0.07%	
35.504	trans-Ascaridol glycol	1288	0.05%	
36.235	Unidentified	1299	0.01%	
37.475	Unidentified	1318	0.11%	
38.230	Unidentified	1330	0.01%	
39.205	Unidentified	1344	0.03%	
40.764	Unidentified	1368	0.03%	



Ret. Time	Component	Ret. Idx.	Conc. %
41.094	alpha-Copaene	1373	0.08%
43.107	alpha-Gurjunene	1404	0.14%
43.349	Unidentified	1408	0.01%
43.882	beta-Caryophyllene	1417	0.17%
44.356	gamma-Maaliene	1424	0.03%
44.800	alpha-Maaliene	1431	0.04%
45.073	Aromadendrene	1436	0.52%
45.170	Unidentified	1437	0.06%
45.276	Unidentified	1439	0.02%
45.521	Unidentified	1443	0.06%
45.730	trans-Murrola-3,5-diene	1446	0.06%
46.126	alpha-Humulene	1453	0.04%
46.410	Alloaromadendrene	1457	0.24%
47.168	cis-Murrola-4(14),5-diene	1469	0.17%
47.351	gamma-Murolene	1472	0.02%
48.074	(1S,2S,4S)-Menthane-1,2,4-triol	1484	0.11%
48.200	beta-Selinene	1486	0.11%
48.351	Viridiflorene	1488	0.62%
48.612	Bicyclogermacrene	1492	0.31%
48.809	alpha-Murolene	1496	0.07%
49.687	Unidentified	1510	0.01%
49.999	delta-Cadinene	1515	0.54%
50.215	Unidentified	1519	0.05%
50.263	Zonarene	1520	0.12%
50.842	trans-Cadine-1,4-diene	1530	0.08%
52.586	Pogostol	1559	0.05%
53.000	Unidentified	1566	0.02%
53.069	Unidentified	1567	0.02%
53.431	Spathulenol	1573	0.03%
53.971	Globulol	1582	0.22%
54.473	Viridiflorol	1591	0.11%
54.612	Guaiol	1593	0.09%
55.073	Unidentified	1601	0.02%
55.190	Rosifoliol	1603	0.04%
56.188	Eudesmol analogue	1621	0.08%
56.401	Epicubenol	1625	0.11%
56.667	Unidentified	1629	0.04%
57.255	Epicubenol analogue	1640	0.05%
57.459	Unidentified	1643	0.02%

Total Identified Compounds **99.37 %**

