



GC/MS Report

GC4

Item	Lot 13559
98401-13	
<i>Melaleuca alternifolia</i>	
Tea Tree EO	
Date	Analyst
12/10/2024	N. K

Sample Information

Sample Name: Tea Tree

Botanical Name: Melaleuca alternifolia

Lot Number: 13559

Production Method: Steam distilled

Sample Type: EO - Single

Country of Origin: Australia

Analysis Date: 12/10/2024

Manufacture Date: December 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	METHOD	RESULTS
Optical Rotation @20°C	USP[781]	+9.96
Refractive Index @20°C	USP[831]	1.47772
Specific Gravity @20°C	USP[841]	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%	IFRA
17.559	Limonene	1027	0.92%	
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-1ol	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 %**

