

Sample & Analysis Information

Sample Information

Sample Name: Manuka Essential Oil**Botanical Name:** Leptospermum scoparium**Lot Number:** 13024**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** New Zealand**Analysis Date:** 8/12/2024**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 μ L**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

-24.76

1.50180

0.95683

Ret. Time	Component	Ret. Idx.	Conc. %	
4.035	Unidentified	647	0.01%	
4.153	Unidentified	658	0.01%	
6.500	2,3-Hexanedione (Acetylbutyryl)	789	0.02%	
8.892	Unidentified	856	0.01%	
11.857	alpha-Thujene	924	0.02%	
12.259	alpha-Pinene	931	0.58%	
14.417	Sabinene	970	0.01%	
14.715	beta-Pinene	976	0.09%	
15.351	Myrcene	987	0.4%	
16.277	Hex-(3Z)-enyl acetate	1003	0.03%	
16.729	Isoamyl isobutyrate	1010	0.01%	
17.066	Unidentified	1015	0.02%	
17.540	para-Cymene	1023	0.08%	
17.838	Limonene	1027	0.08%	IFRA
18.002	1,8-Cineole	1030	0.24%	
18.921	Unidentified	1044	0.01%	
19.705	gamma-Terpinene	1056	0.09%	
21.514	Unidentified	1084	0.02%	
22.456	Unidentified	1098	0.07%	
22.899	Isoamyl isovalerate	1105	0.1%	
23.045	2-Methylbutyl isovalerate	1107	0.04%	
23.553	3-Methylbut-3-enyl 3-methylbutyrate	1114	0.07%	
26.633	Unidentified	1159	0.01%	
28.002	Terpinen-4-ol	1179	0.06%	
28.776	Unidentified	1190	0.02%	
28.918	2-Methyl-1-butyl tiglate	1192	0.1%	
28.997	alpha-Terpineol	1193	0.05%	
29.400	Unidentified	1199	0.02%	
32.265	Unidentified	1241	0.01%	
34.491	Unidentified	1274	0.03%	
35.851	Unidentified	1294	0.02%	
39.262	alpha-Cubebene	1345	4.69%	
39.729	Unidentified	1352	0.02%	
40.701	alpha-Ylangene	1367	0.2%	
40.795	Unidentified	1369	0.03%	
41.132	alpha-Copaene	1374	5.02%	
41.529	Elemene isomer	1380	0.04%	
41.638	Unidentified	1382	0.05%	
41.714	Unidentified	1383	0.05%	
41.910	Unidentified	1386	0.07%	

Ret. Time	Component	Ret. Idx.	Conc. %	
42.014	beta-Elemene	1387	1.57%	
42.152	Unidentified	1389	0.01%	
42.313	Benzyl isovalerate	1392	0.26%	
43.137	alpha-Gurjunene	1405	1.02%	
43.378	Unidentified	1408	0.01%	
43.529	Unidentified	1411	0.03%	
43.922	beta-Caryophyllene	1417	3.01%	
44.381	Unidentified	1425	0.04%	
44.575	beta-Copaene	1428	0.27%	
44.782	trans-alpha-Bergamotene	1431	0.11%	
45.102	Aromadendrene	1436	1.68%	
45.288	Guaia-6,9-diene	1439	0.13%	
45.539	Unidentified	1443	0.12%	
45.600	Unidentified	1444	0.06%	
45.773	Cadina-3,5-diene	1447	5.34%	
46.009	Unidentified	1451	0.05%	
46.158	alpha-Humulene	1453	0.33%	
46.303	Unidentified	1455	0.02%	
46.439	Alloaromodendrene	1458	0.59%	
46.577	Unidentified	1460	0.01%	
47.066	Unidentified	1468	0.09%	
47.209	trans-Cadina-1(6),4-diene	1470	4.35%	
47.260	Selina-4,11-diene	1471	0.89%	
47.382	gamma-Murolene	1473	1.06%	
47.500	Unidentified	1475	0.12%	
47.644	alpha-Amorphene	1477	0.2%	
47.752	Germacrene D	1479	0.13%	
47.970	Unidentified	1482	0.05%	
48.263	beta-Selinene	1487	6.53%	
48.407	gamma-Amorphene	1489	1.9%	
48.703	alpha-Selinene	1494	6.41%	
48.842	alpha-Murolene	1496	0.77%	
49.106	delta-Cadinene	1500	0.21%	
49.218	trans,trans-alpha-Farnesene	1502	1.46%	
49.365	Unidentified	1505	0.02%	
49.440	Unidentified	1506	0.02%	
49.716	gamma-Cadinene	1511	0.8%	
49.845	Unidentified	1513	0.02%	
50.063	delta-Cadinene	1516	5.79%	
50.255	trans-Calamenene	1520	8.12%	

Ret. Time	Component	Ret. Idx.	Conc. %	
50.310	Zonarene	1521	1.44%	
50.897	trans-Cadina-1,4-diene	1530	5.66%	
51.120	Flavesone	1534	6.09%	
51.378	alpha-Calacorene	1539	0.39%	
51.555	Unidentified	1542	0.03%	
52.414	Germacrene B	1556	0.01%	
52.613	Unidentified	1559	0.14%	
52.819	Unidentified	1563	0.09%	
53.121	Unidentified	1568	0.1%	
53.462	Spathulenol	1574	0.34%	
53.777	Caryophyllene oxide	1579	0.3%	
54.002	Globulol	1583	0.22%	
54.070	Gleenol	1584	0.13%	
54.253	Unidentified	1587	0.01%	
54.504	Viridiflorol	1591	0.09%	
54.630	Guaiol	1593	0.07%	
55.095	Ledol	1601	0.11%	
55.270	Unidentified	1604	0.02%	
55.490	Isoleptospermone	1608	4.05%	
55.837	Unidentified	1615	0.11%	
56.081	Leptospermone	1619	11.15%	
56.210	Unidentified	1621	0.12%	
56.443	Epicubenol	1625	0.71%	
56.718	Unidentified	1630	0.08%	
56.795	Unidentified	1632	0.04%	
56.966	Unidentified	1635	0.01%	
57.294	Epicubenol isomer	1640	1.11%	
57.484	alpha-Muurolol	1644	0.07%	
57.626	Unidentified	1646	0.02%	
57.978	Unidentified	1653	0.21%	
58.135	Intermedeol	1655	0.27%	
58.486	Unidentified	1662	0.02%	
58.777	Unidentified	1667	0.05%	
58.949	Cadalene	1670	0.14%	
59.261	beta-Copaen-4-alfa-ol	1675	0.1%	
60.886	Unidentified	1705	0.01%	
61.462	Unidentified	1715	0.04%	
61.845	Unidentified	1722	0.08%	
63.095	Unidentified	1746	0.01%	
63.995	Benzyl benzoate	1763	0.03%	IFRA

Ret. Time	Component	Ret. Idx.	Conc. %	
65.274	Unidentified	1786	0.03%	
83.244	Grandiflorone	2159	0.21%	

Total Identified Compounds **97.64 %**

TIC
4,405,414

