

## Sample Information

**Sample Name:** Myrrh Essential Oil

**Botanical Name:** Commiphora myrrha

**Lot Number:** 12856

**Production Method:** Steam distilled

**Sample Type:** EO - Single

**Country of Origin:** Ethiopia, Somalia

**Analysis Date:** 11/11/2024

**Date of Distillation:** November 2024

## GC/MS

**Inst. ID:** Shimadzu GCMS-QP2010Ultra

**Injection Type:** Split

**Split Ratio:** 24.4

**Column Type:** ZB-5

**Injection Volume:** 0.1  $\mu$ 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

-112.20

1.52642

1.01266

Ret. Time	Component	Ret. Idx.	Conc. %	
2.960	Ethanol	541	0.04%	
17.818	Limonene	1027	0.01%	IFRA
17.981	1,8-Cineole	1029	0.02%	
18.886	trans-beta-Ocimene	1043	0.03%	
38.197	Elemene isomer	1329	0.03%	
38.431	delta-Elemene	1333	0.7%	
39.200	alpha-Cubebene	1344	0.02%	
40.652	Unidentified	1367	0.01%	
41.072	alpha-Copaene	1373	0.07%	
41.489	Elemene isomer	1379	0.06%	
41.587	beta-Bourbonene	1381	0.28%	
41.777	alpha-Bourbonene	1384	0.03%	
41.984	beta-Elemene	1387	3.57%	
42.818	Cyperene	1400	0.03%	
43.477	Unidentified	1410	0.01%	
43.859	beta-Caryophyllene	1416	0.52%	
44.500	gamma-Elemene	1426	1.19%	
44.723	trans-alpha-Bergamotene	1430	0.02%	
45.412	Isogermacrene D	1441	0.06%	
45.722	Unidentified	1446	0.02%	
46.108	alpha-Humulene	1452	0.19%	
46.386	Alloaromodendrene	1457	0.05%	
46.502	Unidentified	1459	0.03%	
46.766	Unidentified	1463	0.02%	
46.913	Unidentified	1465	0.02%	
47.016	4,5-di-epi-Aristolochene	1467	0.04%	
47.225	Selina-4,11-diene	1470	0.1%	
47.333	gamma-Muurolene	1472	0.13%	
47.451	Unidentified	1474	0.03%	
47.620	Unidentified	1476	0.04%	
47.707	Germacrene D	1478	1.11%	
48.125	Unidentified	1485	0.07%	
48.194	beta-Selinene	1486	0.57%	
48.350	Unidentified	1488	0.02%	
48.609	Curzerene	1492	22.88%	
48.670	alpha-Selinene	1493	0.17%	
48.820	alpha-Muurolene	1496	0.09%	
48.928	alpha-Bisabolene	1497	0.09%	
49.092	Unidentified	1500	0.2%	
49.230	Unidentified	1502	0.02%	

Ret. Time	Component	Ret. Idx.	Conc. %
49.355	beta-Bisabolene	1504	0.02%
49.674	gamma-Cadinene	1510	0.3%
49.785	Unidentified	1512	0.02%
49.982	delta-Cadinene	1515	0.23%
50.318	Unidentified	1521	0.03%
50.819	Unidentified	1529	0.03%
51.076	Selina-4(15),7(11)-diene	1533	0.1%
51.355	Selina-3,7(11)-diene	1538	0.13%
51.574	Unidentified	1542	0.01%
51.745	alpha-Elemol	1545	0.13%
52.377	Germacrene B	1555	2.01%
52.903	Unidentified	1564	0.01%
53.410	Unidentified	1573	0.66%
53.724	Caryophyllene oxide	1578	0.03%
54.137	Unidentified	1585	0.04%
54.360	Unidentified	1589	0.02%
54.539	Unidentified	1592	0.06%
54.694	beta-Elemenone	1594	0.1%
54.803	Curzerenone	1596	0.13%
55.025	Unidentified	1600	0.02%
55.255	Unidentified	1604	0.01%
55.336	Humulene epoxide II	1606	0.02%
55.490	Unidentified	1608	0.02%
55.681	1,10-di-epi-Cubenol	1612	0.1%
55.804	Unidentified	1614	0.04%
56.090	Unidentified	1619	0.03%
56.408	Furanoeudesma-1,3-diene	1625	33.9%
56.645	Curzerene analogue	1629	0.03%
56.833	Lindestrene	1632	12.28%
57.010	Unidentified	1635	0.03%
57.198	epi-alpha-Cadinol	1639	1.04%
57.450	tau-Cadinol	1643	0.03%
57.590	Unidentified	1646	0.02%
57.870	Unidentified	1651	0.4%
58.095	Selin-11-en-4-alpha-ol	1655	0.22%
58.210	Furanodiene	1657	0.32%
58.237	Unidentified	1657	0.46%
58.421	Germacrone analogue	1660	0.05%
58.642	Intermedeol	1664	1.9%
58.861	Unidentified	1668	0.04%

Ret. Time	Component	Ret. Idx.	Conc. %
58.990	Unidentified	1671	0.04%
59.263	Unidentified	1675	0.05%
59.468	2-Methoxyfuranodiene A	1679	0.93%
60.022	Germacrone	1689	0.71%
60.335	Unidentified	1695	0.08%
60.447	2-Methoxyfuranodiene isomer	1697	0.05%
60.673	Unidentified	1701	0.01%
60.860	Unidentified	1704	0.05%
61.154	2-Methoxyfuranodiene B	1710	7.54%
61.278	Unidentified	1712	0.12%
61.643	Unidentified	1719	0.05%
61.753	Unidentified	1721	0.06%
62.161	Unidentified	1728	0.01%
62.397	Unidentified	1733	0.02%
62.590	Unidentified	1736	0.01%
62.752	Unidentified	1739	0.03%
62.932	Unidentified	1743	0.03%
63.050	Unidentified	1745	0.02%
63.340	Unidentified	1750	0.05%
63.480	Unidentified	1753	0.05%
63.865	Unidentified	1760	0.03%
64.093	Unidentified	1764	0.1%
64.230	Unidentified	1767	0.04%
64.373	Unidentified	1770	0.02%
64.674	Unidentified	1775	0.01%
64.873	Eudesmol analogue	1779	0.32%
65.030	Unidentified	1782	0.01%
66.066	Unidentified isomer I	1801	0.01%
66.202	Unidentified	1804	0.01%
66.466	Unidentified	1809	0.03%
66.747	Unidentified isomer II	1815	0.02%
66.856	Unidentified	1817	0.03%
67.169	2-Acetoxyfuranodiene isomer	1823	0.1%
67.326	Unidentified isomer II	1826	0.08%
67.449	Unidentified	1828	0.04%
67.531	Unidentified isomer I	1830	0.09%
67.940	Unidentified	1838	0.09%
68.250	Unidentified	1844	0.02%
69.178	Unidentified	1862	0.03%
69.330	Unidentified	1865	0.01%

Ret. Time	Component	Ret. Idx.	Conc. %
69.507	Unidentified	1869	0.01%
69.650	Unidentified	1872	0.02%
69.832	2-Acetoxyfuranodiene	1875	0.66%
70.077	Unidentified	1880	0.04%
70.217	Unidentified	1883	0.04%
70.410	Unidentified isomer III	1886	0.02%
70.793	2-Hydroxyfuranodiene analogue	1894	0.08%
71.145	Unidentified	1901	0.08%
72.269	2-Hydroxyfuranodiene	1924	0.13%
74.231	Unidentified	1964	0.15%
75.801	Unidentified isomer III	1997	0.1%
76.177	Unidentified isomer III	2005	0.01%
76.676	Unidentified isomer III	2015	0.03%
79.783	Unidentified	2082	0.02%

Total Identified Compounds **95.69 %**



# GC/MS Report: Chromatogram

