

## Sample Information

**Sample Name:** Frankincense Carterii Prem

**Sample Type:** EO - Single

**Botanical Name:** Boswellia carterii

**Country of Origin:** Somalia

**Lot Number:** SOP10-PK

**Analysis Date:** 10/22/2024

**Production Method:** Hydrodistillation

**Manufacture Date:** October 2024

## GC/MS

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

**Column Type:** ZB-5

**Injection Type:** Split

**Injection Volume:** 0.1 µL

**Split Ratio:** 24.4

**Temperature Program:** 2C/min

## Physical Data

### ANALYSIS

Optical Rotation @20°C

### METHOD

USP[781]

### RESULTS

-8.72

Refractive Index @20°C

USP[831]

1.46866

Specific Gravity @20°C

USP[841]

0.86749

GC/MS Report  
Components

Ret. Time	Component	Ret. Idx.	Conc. %	
5.839	Toluene	763	0.06%	IFRA
7.831	6,6-Dimethylhepta-2,4-diene	832	0.01%	
9.610	Unidentified	880	0.01%	
10.880	Unidentified	909	0.01%	
11.412	Hashishene	919	0.3%	
11.527	Tricyclene	921	0.09%	
11.680	alpha-Thujene	924	4.4%	
12.126	alpha-Pinene	932	56.1%	
12.606	Thuja-2,4(10)diene	941	0.06%	
12.868	alpha-Fenchene	946	0.02%	
12.964	Camphene	948	0.69%	
13.161	Thuja-2,4(10)diene	951	0.3%	
13.264	Unidentified	953	0.01%	
14.216	Sabinene	971	4.62%	
14.515	beta-Pinene	976	4.82%	
15.136	Myrcene	988	2.57%	
16.030	Unidentified	1004	0.02%	
16.105	Unidentified	1005	0.04%	
16.182	alpha-Phellandrene	1006	1.03%	
16.324	delta-3-Carene	1008	0.3%	
16.510	Hexyl acetate	1011	0.02%	
16.835	alpha-Terpinene	1016	0.09%	
16.997	ortho-Cymene	1019	0.01%	
17.316	para-Cymene	1023	2.33%	
17.432	Unidentified	1025	0.12%	
17.617	Limonene	1028	7.11%	IFRA
17.712	beta-Phellandrene	1030	0.21%	
17.788	1,8-Cineole	1031	0.22%	
17.965	Unidentified	1033	0.02%	
18.007	cis-beta-Ocimene	1034	0.11%	
18.682	trans-beta-Ocimene	1044	0.07%	
18.871	Thujol	1047	0.01%	
19.462	gamma-Terpinene	1057	0.69%	
20.246	1-Octanol	1069	0.3%	
20.390	Unidentified	1071	0.02%	
21.259	Terpinolene	1084	0.09%	
21.567	para-Cymenene	1089	0.08%	
22.120	Perillene	1097	0.04%	
22.197	Linalool	1099	0.19%	IFRA
22.654	Unidentified	1105	0.02%	

GC/MS Report  
Components

Ret. Time	Component	Ret. Idx.	Conc. %	
22.838	Unidentified	1108	0.04%	
23.439	beta-Thujone	1117	0.05%	IFRA
23.587	Myrcenol	1119	0.01%	
23.689	trans-para-Mentha-2,8-dienol	1120	0.01%	
23.875	cis-para-Mentha-2,8-dienol	1123	0.01%	
24.043	alpha-Campholenal	1126	0.19%	
24.201	octyl-Formate	1128	0.03%	
24.981	trans-Pinocarveol	1139	0.38%	
25.054	cis-Verbenol	1140	0.13%	
25.308	trans-Verbenol	1144	0.63%	
25.425	Unidentified	1146	0.02%	
25.650	alpha-Phellandrene-8-ol	1149	0.11%	
26.124	Sabina ketone	1156	0.01%	
26.339	trans-Pinocamphone	1159	0.05%	
26.476	Pinocarvone	1161	0.02%	
26.938	Unidentified	1168	0.03%	
27.106	para-Mentha-1,5-dien-8-ol	1170	0.24%	
27.726	Terpinen-4-ol	1179	0.43%	
28.158	para-Cymen-8-ol	1186	0.08%	
28.495	Unidentified	1190	0.01%	
28.732	alpha-Terpineol	1194	0.63%	
29.053	Unidentified	1199	0.01%	
29.270	alpha-Phellandrene epoxide	1202	0.03%	
29.519	Verbenone	1205	0.29%	
29.801	Octyl acetate	1210	4.02%	
30.351	trans-Carveol	1218	0.1%	
30.937	Decyl methyl ether	1226	0.24%	
31.252	Unidentified	1231	0.02%	
31.955	Unidentified	1241	0.02%	
32.045	Carvone	1243	0.06%	IFRA
33.514	3,5-Dimethoxytoluene	1264	0.04%	
34.775	Bornyl acetate	1283	0.23%	
38.918	Unidentified	1345	0.05%	
40.795	alpha-Copaene	1374	0.2%	
40.978	Geranyl acetate	1377	0.02%	
41.308	alpha-Bourbonene	1382	0.09%	
41.490	Hexyl hexanoate	1385	0.03%	
41.688	beta-Elemene	1388	0.15%	
42.805	alpha-Gurjunene	1405	0.02%	
43.588	beta-Caryophyllene	1417	2.37%	

GC/MS Report  
Components

Ret. Time	Component	Ret. Idx.	Conc. %
44.449	trans-alpha-Bergamotene	1431	0.02%
44.961	6,9-Guanidiene	1439	0.06%
45.434	Isogermacrene D	1447	0.02%
45.827	alpha-Humulene	1453	0.15%
46.100	Alloaromodendrene	1458	0.04%
47.044	trans-Cadina-1(6),4-diene	1473	0.06%
47.416	Germacrene D	1479	0.07%
47.909	beta-Selinene	1487	0.07%
48.335	alpha-Selinene	1494	0.09%
48.509	alpha-Muurolene	1496	0.04%
49.378	gamma-Cadinene	1511	0.1%
49.500	Cubebol	1513	0.09%
49.688	delta-Cadinene	1516	0.14%
52.244	Unidentified	1559	0.01%
53.133	Unidentified	1574	0.01%
53.437	Caryophyllene oxide	1579	0.17%
54.165	Viridiflorol	1592	0.06%
55.048	Humulene epoxide II	1607	0.05%
55.283	Unidentified	1611	0.02%
55.370	Unidentified	1613	0.01%
56.895	tau-Cadinol	1640	0.08%
57.588	Unidentified	1652	0.02%
65.150	Phellandrene dimer	1791	0.02%
72.879	meta-Camphorene	1945	0.02%
73.134	Neocembrene	1950	0.02%
75.899	Unidentified	2007	0.01%
82.066	Incensole	2142	0.06%
82.173	Serratol	2144	0.1%
82.914	Incensole acetate	2161	0.08%

Total Identified Compounds **99.45 %**

