



Essential Oil University

GC/MS Report

Item	Lot
Frankincense EO, Carterii <i>Boswellia carterii</i>	1D
Date	Analyst
1/14/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Frankincense EO, Carterii, meets the expected chemical profile for authentic essential oil of *Boswellia carterii*. 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:** Frankincense EO, Carterii**Botanical Name:** Boswellia carterii**Lot Number:** 1D**Production Method:** Hydrodistillation**Sample Type:** EO - Single**Country of Origin:** Somaliland**Analysis Date:** 1/14/2025**Manufacture Date:** October 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

-8.72

1.46866

0.86749



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%	



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-Elementene	1388	0.15%	
42.805	alpha-Gurjunene	1405	0.02%	
43.588	beta-Caryophyllene	1417	2.37%	



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	Unidentified	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 **99.43 %**

