



Essential Oil University

GC/MS Report

Item	Lot
Frankincense EO, Carterii <i>Boswellia carterii</i>	3H
Date	Analyst
2/12/2025	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:** 3H**Production Method:** Hydrodistillation**Sample Type:** EO - Single**Country of Origin:** Somaliland**Analysis Date:** 2/12/2025**Manufacture Date:** January 2025

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

-11.68

1.47007

0.87497



Ret. Time	Component	Ret. Idx.	Conc. %	
5.815	Toluene	762	0.08%	IFRA
7.799	6,6-Dimethylhepta-2,4-diene	832	0.02%	
9.574	Unidentified	879	0.02%	
10.839	trans-2,6-Dimethyl-4-octene	909	0.02%	
11.371	Hashishene	919	0.32%	
11.487	Tricyclene	921	0.12%	
11.641	alpha-Thujene	923	3.77%	
12.105	alpha-Pinene	932	55.2%	
12.562	Thujadiene isomer	940	0.03%	
12.828	alpha-Fenchene	945	0.02%	
12.921	Camphene	947	0.84%	
13.119	Thuja-2,4(10)diene	951	0.22%	
14.105	Unidentified	969	0.03%	
14.177	Sabinene	970	4.77%	
14.475	beta-Pinene	976	5.17%	
14.957	para-Menth-3-ene	985	0.01%	
15.092	Myrcene	987	2%	
16.055	Unidentified	1004	0.01%	
16.137	alpha-Phellandrene	1005	0.34%	
16.279	delta-3-Carene	1007	0.26%	
16.462	Hexyl acetate	1010	0.03%	
16.793	alpha-Terpinene	1015	0.02%	
16.952	ortho-Cymene	1018	0.02%	
17.273	para-Cymene	1023	2.88%	
17.388	Unidentified	1025	0.16%	
17.579	Limonene	1027	7.45%	IFRA
17.671	beta-Phellandrene	1029	0.12%	
17.743	1,8-Cineole	1030	0.24%	
17.905	Unidentified	1033	0.02%	
17.961	cis-beta-Ocimene	1033	0.06%	
18.633	trans-beta-Ocimene	1044	0.04%	
18.822	Unidentified	1047	0.03%	
19.416	gamma-Terpinene	1056	0.62%	
20.197	1-Octanol	1068	0.36%	
21.218	Unidentified	1084	0.09%	
21.529	para-Cymenene	1088	0.08%	
22.105	Perillene	1097	0.12%	
22.137	Linalool	1098	0.25%	IFRA
22.609	Isoamyl isovalerate	1105	0.03%	
22.793	Thujol	1107	0.17%	



Ret. Time	Component	Ret. Idx.	Conc. %	
23.389	beta-Thujone	1116	0.06%	IFRA
23.637	trans-para-Mentha-2,8-dienol	1120	0.03%	
23.822	cis-para-Menth-2-en-1-ol	1122	0.02%	
23.994	alpha-Campholenal	1125	0.11%	
24.151	Unidentified	1127	0.04%	
24.390	Unidentified	1131	0.02%	
24.632	Unidentified	1134	0.05%	
24.933	trans-Pinocarveol	1139	0.47%	
25.010	cis-Chrysanthenol	1140	0.1%	
25.261	trans-Verbenol	1143	0.7%	
25.335	Unidentified	1144	0.02%	
25.601	alpha-Phellandrene-8-ol	1148	0.05%	
26.072	Sabina ketone	1155	0.02%	
26.289	trans-Pinocamphone	1158	0.06%	
26.890	Unidentified	1167	0.04%	
27.062	para-Mentha-1,5-dien-8-ol	1170	0.05%	
27.678	Terpinen-4-ol	1179	0.36%	
28.109	para-Cymen-8-ol	1185	0.17%	
28.456	Myrtenol	1190	0.02%	
28.685	alpha-Terpineol	1193	0.67%	
29.014	cis-Piperitol	1198	0.03%	
29.220	alpha-Phellandrene epoxide	1201	0.02%	
29.472	Verbenone	1205	0.42%	
29.759	Octyl acetate	1209	4.47%	
30.304	trans-Carveol	1217	0.2%	
30.890	Decyl methyl ether	1226	0.23%	
31.209	cis-Carveol	1230	0.03%	
31.902	Unidentified	1240	0.02%	
31.999	Carvone	1242	0.09%	IFRA
33.466	3,5-Dimethoxytoluene	1263	0.05%	
34.724	Bornyl acetate	1282	0.25%	
35.069	Unidentified	1287	0.02%	
35.630	Unidentified	1295	0.06%	
36.428	Unidentified	1307	0.06%	
37.071	Unidentified	1317	0.05%	
38.870	alpha-Cubebene	1345	0.06%	
40.748	alpha-Copaene	1373	0.22%	
40.926	Neryl acetate	1376	0.02%	
41.263	alpha-Bourbonene	1381	0.1%	
41.447	Hexyl hexanoate	1384	0.03%	



Ret. Time	Component	Ret. Idx.	Conc. %	
41.645	beta-Elemene	1387	0.18%	
41.849	Unidentified	1390	0.03%	
42.751	Valerna-4,7(11)-diene	1404	0.03%	
43.544	beta-Caryophyllene	1417	2.32%	
44.188	beta-Copaene	1427	0.02%	
44.400	trans-alpha-Bergamotene	1430	0.03%	
44.910	6,9-Guaiadiene	1439	0.04%	
45.378	Aromadendrene	1446	0.02%	
45.780	alpha-Humulene	1453	0.11%	
46.054	Alloaromodendrene	1457	0.04%	
46.999	trans-Cadina-1(6),4-diene	1472	0.06%	
47.367	Germacrene D	1478	0.03%	
47.860	beta-Selinene	1486	0.07%	
48.281	alpha-Selinene	1493	0.09%	
48.462	alpha-Muurolene	1496	0.04%	
49.335	gamma-Cadinene	1510	0.1%	
49.458	Cubebol	1512	0.12%	
49.643	delta-Cadinene	1515	0.1%	
53.389	Caryophyllene oxide	1579	0.41%	
54.113	Viridiflorol	1591	0.08%	
55.005	Humulene epoxide II	1606	0.09%	
56.846	tau-Cadinol	1639	0.08%	
65.101	Phellandrene dimer	1790	0.02%	
72.827	meta-Camphorene	1944	0.03%	
73.092	Neocembrene	1949	0.03%	
75.839	Unidentified	2006	0.03%	
82.016	Incensole	2141	0.1%	
82.118	Serratol	2143	0.09%	
82.866	Incensyl acetate	2160	0.1%	

Total Identified Compounds **99.22 %**

