



Essential Oil University

GC/MS Report

Item	Lot
Frankincense EO, Carterii <i>Boswellia carterii</i>	1E
Date	Analyst
5/1/2025	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:** 1E**Production Method:** Hydrodistillation**Sample Type:** EO - Single**Country of Origin:** Somaliland**Analysis Date:** 5/1/2025**Manufacture Date:** April 2025

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

-8.12

1.46906

0.86396



Ret. Time	Component	Ret. Idx.	Conc. %	
5.819	Toluene	762	0.05%	IFRA
7.798	6,6-Dimethylhepta-2,4-diene	832	0.01%	
9.571	Unidentified	879	0.01%	
10.833	2,6-Dimethyloctene	909	0.02%	
11.365	Hashishene	918	0.14%	
11.480	Tricyclene	921	0.1%	
11.634	alpha-Thujene	923	2.86%	
12.087	alpha-Pinene	932	54.11%	
12.555	Thujadiene isomer	940	0.05%	
12.817	alpha-Fenchene	945	0.02%	
12.911	Camphene	947	0.86%	
13.109	Thuja-2,4(10)-diene	951	0.22%	
13.209	Unidentified	952	0.01%	
14.095	Unidentified	969	0.06%	
14.163	Sabinene	970	4.88%	
14.458	beta-Pinene	975	4.5%	
14.942	para-Menth-3-ene	984	0.01%	
15.081	Myrcene	987	3.08%	
15.975	Pseudolimonene	1003	0.02%	
16.060	Unidentified	1004	0.04%	
16.125	alpha-Phellandrene	1005	1.78%	
16.265	delta-3-Carene	1007	0.84%	
16.450	Hexyl acetate	1010	0.02%	
16.775	alpha-Terpinene	1015	0.13%	
16.933	ortho-Cymene	1018	0.01%	
17.257	para-Cymene	1023	2.35%	
17.377	Unidentified	1024	0.05%	
17.566	Limonene	1027	10.53%	IFRA
17.656	beta-Phellandrene	1029	0.41%	
17.727	1,8-Cineole	1030	0.18%	
17.948	cis-beta-Ocimene	1033	0.24%	
18.624	trans-beta-Ocimene	1044	0.1%	
19.394	gamma-Terpinene	1055	0.76%	
20.184	1-Octanol	1068	0.2%	
20.305	Pinol	1070	0.02%	
21.183	Terpinolene	1083	0.09%	
21.504	para-Cymenene	1088	0.06%	
22.080	Perillene	1097	0.04%	
22.126	Linalool	1098	0.16%	IFRA
22.579	Solusterol	1104	0.02%	



Ret. Time	Component	Ret. Idx.	Conc. %	
22.771	Unidentified	1107	0.03%	
23.367	beta-Thujone	1116	0.02%	IFRA
23.618	trans-para-Mentha-2,8-dien-1-ol	1119	0.01%	
23.793	Unidentified	1122	0.01%	
23.970	alpha-Campholenal	1125	0.13%	
24.070	allo-Ocimene	1126	0.01%	
24.128	Unidentified	1127	0.02%	
24.620	Unidentified	1134	0.02%	
24.907	trans-Pinocarveol	1138	0.19%	
24.983	Unidentified	1139	0.07%	
25.235	trans-Verbenol	1143	0.27%	
25.365	Unidentified	1145	0.01%	
25.576	alpha-Phellandrene-8-ol	1148	0.09%	
26.051	Sabina ketone	1155	0.01%	
26.263	trans-Pinocamphone	1158	0.03%	
26.397	Unidentified	1160	0.02%	
26.869	Unidentified	1167	0.01%	
27.032	para-Mentha-1,5-dien-8-ol	1169	0.19%	
27.513	Unidentified	1176	0.01%	
27.650	Terpinen-4-ol	1178	0.24%	
28.085	para-Cymen-8-ol	1184	0.06%	
28.655	alpha-Terpineol	1193	0.46%	
28.979	Unidentified	1197	0.02%	
29.190	alpha-Phellandrene epoxide	1201	0.03%	
29.446	Verbenone	1204	0.14%	
29.722	Octyl acetate	1208	3.26%	
30.276	trans-Carveol	1217	0.06%	
30.859	1-Methoxydecane	1225	0.08%	
31.177	cis-Carveol	1230	0.02%	
31.870	Unidentified	1240	0.02%	
31.973	Carvone	1241	0.05%	IFRA
33.438	3,5-Dimethoxytoluene	1263	0.02%	
34.691	Bornyl acetate	1281	0.18%	
35.622	Carvacrol	1295	0.02%	
38.837	alpha-Cubebene	1344	0.07%	
40.708	alpha-Copaene	1373	0.26%	
41.221	beta-Bourbonene	1380	0.03%	
41.405	Hexyl hexanoate	1383	0.02%	
41.495	beta-Cubebene	1385	0.02%	
41.604	beta-Elemene	1386	0.33%	



Ret. Time	Component	Ret. Idx.	Conc. %	
42.720	alpha-Gurjunene	1403	0.03%	
43.501	beta-Caryophyllene	1416	2.52%	
44.145	beta-Copaene	1426	0.01%	
44.359	trans-alpha-Bergamotene	1430	0.02%	
45.344	Unidentified	1446	0.02%	
45.737	alpha-Humulene	1452	0.18%	
46.013	Alloaromadendrene	1456	0.05%	
46.783	trans-Cadina-1(6),4-diene	1469	0.02%	
46.960	gamma-Murolene	1471	0.06%	
47.326	Germacrene D	1477	0.06%	
47.715	Unidentified	1484	0.01%	
47.818	beta-Selinene	1485	0.14%	
47.994	trans-Muurolo-4(14),5-diene	1488	0.03%	
48.246	alpha-Selinene	1492	0.15%	
48.417	alpha-Murolene	1495	0.05%	
48.590	Unidentified	1498	0%	
49.289	gamma-Cadinene	1509	0.11%	
49.413	Cadinene analogue	1511	0.07%	
49.604	delta-Cadinene	1515	0.21%	
52.155	Unidentified	1558	0.02%	
53.045	Unidentified	1573	0.01%	
53.348	Caryophyllene oxide	1578	0.15%	
54.076	Viridiflorol	1590	0.11%	
54.960	Unidentified	1605	0.03%	
56.007	1-Epicubenol	1624	0.01%	
56.806	tau-Cadinol	1638	0.1%	
65.053	Phellandrene dimer	1789	0.01%	
73.049	Neocembrene	1948	0.02%	
81.478	Unidentified	2128	0.01%	
81.971	Incensole	2140	0.06%	
82.066	Serratol	2142	0.07%	
82.820	Incensyl acetate	2159	0.05%	

Total Identified Compounds **99.46 %**

