



Essential Oil University

GC/MS Report

Item	Lot
NOP Frankincense (Olibanum) EO carterii <i>Boswellia carterii</i>	0P
Date	Analyst
3/10/2028	Dr. Robert S. Pappas

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The analysis of this batch sample, NOP Frankincense (Olibanum) 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:** NOP Frankincense (Olibanum) EO carterii**Botanical Name:** Boswellia carterii**Lot Number:** 0P**Production Method:** Hydrodistillation**Sample Type:** EO - Certified Organics**Country of Origin:** Morocco**Analysis Date:** 3/10/2028**Manufacture Date:** March 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

-8.68

1.47030

0.86123



Ret. Time	Component	Ret. Idx.	Conc. %	
6.193	Toluene	757	0.09%	IFRA
6.402	Unidentified	766	0.01%	
8.333	6,6-Dimethylhepta-2,4-diene isomer	828	0.02%	
8.881	6,6-Dimethylhepta-2,4-diene	842	0.01%	
10.217	Unidentified	875	0.01%	
10.423	Cymene analogue	880	0.01%	
12.112	Hashishene	915	0.15%	
12.236	Tricylcene	918	0.07%	
12.415	alpha-Thujene	921	12.83%	
12.514	Unidentified	922	0.02%	
12.883	alpha-Pinene	929	28.06%	
13.347	Thujadiene isomer	937	0.64%	
13.630	alpha-Fenchene	942	0.02%	
13.731	Camphene	944	0.83%	
13.927	Thuja-2,4(10)-diene	947	0.36%	
14.929	para-Cymene	965	0.38%	
15.025	Sabinene	967	5.06%	
15.331	beta-Pinene	972	1.47%	
15.964	Myrcene	983	4.69%	
16.395	Unidentified	991	0.01%	
16.886	Pseudolimonene	999	0.03%	
16.970	Unidentified	1001	0.06%	
17.040	alpha-Phellandrene	1002	2.04%	
17.193	delta-3-Carene	1004	3.31%	
17.701	alpha-Terpinene	1012	0.39%	
17.855	ortho-Cymene	1014	0.08%	
18.204	para-Cymene	1019	5.84%	
18.326	Unidentified	1021	0.34%	
18.549	Limonene	1024	14.16%	IFRA
18.634	beta-Phellandrene	1026	0.61%	
18.709	1,8-Cineole	1027	0.21%	
18.885	cis-beta-Ocimene	1029	0.08%	
19.576	trans-beta-Ocimene	1040	0.05%	
19.776	Unidentified	1043	0.09%	
20.382	gamma-Terpinene	1052	0.61%	
21.175	trans-Sabinene hydrate	1064	0.07%	
21.320	Pinol	1066	0.02%	
21.899	Unidentified	1075	0.02%	
22.207	Terpinolene	1079	0.23%	
22.505	para-Cymenene	1084	0.13%	



Ret. Time	Component	Ret. Idx.	Conc. %	
22.853	Unidentified	1089	0.01%	
23.065	Perillene	1092	0.08%	
23.151	Linalool	1094	0.13%	IFRA
23.248	cis-Sabinene hydrate	1095	0.05%	
23.386	Unidentified	1097	0.02%	
23.624	Isoamyl isovalerate	1101	0.1%	
23.828	Thujol	1104	0.02%	
24.054	Unidentified	1107	0.06%	
24.416	beta-Thujone	1112	0.47%	IFRA
24.495	Unidentified	1113	0.05%	
24.674	trans-para-Mentha-2,8-dien-1-ol	1116	0.04%	
24.870	cis-para-Menth-2-en-1-ol	1118	0.04%	
25.026	alpha-Campholenal	1121	0.25%	
25.204	Unidentified	1123	0.02%	
25.437	Unidentified	1127	0.05%	
25.684	Unidentified	1130	0.03%	
25.750	trans-Limonene oxide	1131	0.02%	
25.903	trans-Sabinol	1133	0.09%	
26.003	trans-Pinocarveol	1135	0.46%	
26.055	Unidentified	1135	0.17%	
26.320	trans-Verbenol	1139	0.75%	
26.450	Camphor	1141	0.02%	
26.662	alpha-Phellandrene-8-ol	1144	0.11%	
27.136	Sabina ketone	1151	0.05%	
27.270	Unidentified	1153	0.01%	
27.358	trans-Pinocamphone	1154	0.09%	
27.491	Unidentified	1156	0.15%	
27.952	Sabinol isomer	1163	0.21%	
28.122	para-Mentha-1,5-dien-8-ol	1165	0.32%	
28.621	Unidentified	1172	0.02%	
28.771	Terpinen-4-ol	1174	1.1%	
28.924	Unidentified	1176	0.02%	
29.021	Unidentified	1178	0.02%	
29.171	para-Cymen-8-ol	1180	0.15%	
29.529	Unidentified	1185	0.04%	
29.775	alpha-Terpineol	1189	0.5%	
30.105	Isopiperitenol analogue	1193	0.05%	
30.314	alpha-Phellandrene epoxide	1196	0.08%	
30.573	Verbenone	1200	0.33%	
30.715	trans-Piperitol	1202	0.02%	



Ret. Time	Component	Ret. Idx.	Conc. %	
30.813	Unidentified	1204	0.04%	
31.386	trans-Carveol	1212	0.19%	
31.990	1-Methoxydecane	1221	0.5%	
32.297	cis-Carveol	1225	0.04%	
32.999	Cuminal	1235	0.08%	IFRA
33.097	Carvone	1237	0.14%	IFRA
33.305	Unidentified	1240	0.01%	
33.451	Unidentified	1242	0.04%	
34.557	3,5-Dimethoxytoluene	1258	0.05%	
35.286	Unidentified	1269	0.01%	
35.884	Bornyl acetate	1277	0.24%	
36.204	Thymol	1282	0.01%	
36.309	ortho-Cymen-7-ol	1283	0.02%	
36.751	Carvacrol	1290	0.03%	
39.307	delta-Elemene	1328	0.01%	
40.088	alpha-Cubebene	1340	0.2%	
41.521	Cyclosativene	1362	0.07%	
41.976	alpha-Copaene	1368	0.71%	
42.499	beta-Bourbonene	1376	0.19%	
42.780	beta-Cubebene	1381	0.07%	
42.859	beta-Elemene	1382	0.57%	
43.040	Sativene	1385	0.01%	
44.006	Cyperene	1399	0.08%	
44.800	beta-Caryophyllene	1412	2.06%	
45.436	beta-Copaene	1422	0.05%	
45.633	trans-alpha-Bergamotene	1425	0.08%	
46.638	trans-Murrola-3,5-diene	1441	0.02%	
47.045	alpha-Humulene	1448	0.4%	
47.317	Alloaromodendrene	1452	0.15%	
47.444	cis-Cadina-1(6),4-diene	1454	0.01%	
48.070	trans-Cadina-1(6),4-diene	1464	0.03%	
48.140	Unidentified	1465	0.02%	
48.247	gamma-Murolene	1467	0.33%	
48.634	Germacrene D	1473	0.35%	
49.012	delta-Cadinene	1479	0.04%	
49.133	beta-Selinene	1481	0.29%	
49.314	gamma-Amorphene	1484	0.09%	
49.550	alpha-Selinene	1487	0.37%	
49.708	alpha-Murolene	1490	0.15%	
50.594	gamma-Cadinene	1504	0.46%	



Ret. Time	Component	Ret. Idx.	Conc. %	
50.716	Cubebol	1506	0.29%	
50.895	delta-Cadinene	1509	0.55%	
50.980	cis-Calamenene	1511	0.03%	
51.083	trans-Calamenene	1512	0.01%	
51.749	trans-Cadina-1,4-diene	1524	0.02%	
51.997	alpha-Cadinene	1528	0.04%	
52.666	alpha-Elemol	1539	0.01%	
53.493	Unidentified	1553	0.04%	
54.211	Unidentified	1565	0.04%	
54.356	Spathulenol	1567	0.03%	
54.685	Caryophyllene oxide	1573	0.5%	
55.406	Viridiflorol	1585	0.06%	
56.008	Ledol	1595	0.01%	
56.279	Humulene epoxide II	1600	0.12%	
56.523	Unidentified	1604	0.03%	
56.615	1,10-di-epi-Cubenol	1606	0.05%	
57.326	Epicubenol	1618	0.02%	
58.124	tau-Cadinol	1632	0.34%	
58.379	alpha-Cadinol	1637	0.02%	
58.868	Unidentified	1645	0.05%	
59.701	Unidentified	1660	0.01%	
66.457	Unidentified	1783	0.02%	
74.483	Neocembrene	1941	0.02%	
77.267	Verticilla-4(20),7,11-triene	1998	0.02%	
82.954	Cembrenol	2120	0.01%	
83.440	Incensole	2131	0.02%	
83.540	Serratol	2134	0.12%	

Total Identified Compounds **98.46 %**

