



Essential Oil University

GC/MS Report

Fantastic 4 Frankincense Oil

Boswellia carterii, sacra, papyrifera, frereana

Item | Lot

1M

Date | Analyst

3/14/2025

Dr. Robert S. Pappas

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The analysis of this batch sample, Fantastic 4 Frankincense Oil, meets the expected chemical profile for authentic essential oil of *Boswellia carterii, sacra, papyrifera, frereana*. 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:** Fantastic 4 Frankincense Oil**Botanical Name:** Boswellia carterii, sacra,
papyrifera, frereana**Lot Number:** 1M**Production Method:** Blend**Sample Type:** EO - Blend**Country of Origin:** USA**Analysis Date:** 3/14/2025**Manufacture Date:** December 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

-8.64

1.47114

0.88277



Ret. Time	Component	Ret. Idx.	Conc. %	
5.880	Toluene	760	0.11%	IFRA
7.894	6,6-Dimethylhepta-2,4-diene	830	0.03%	
9.687	Unidentified	877	0.03%	
11.504	Hashishene	917	0.45%	
11.624	Tricyclene	919	0.09%	
11.779	alpha-Thujene	922	3.84%	
12.225	alpha-Pinene	930	42.54%	
12.710	Thujadiene isomer	939	0.05%	
12.972	alpha-Fenchene	944	0.02%	
13.068	Camphene	946	0.95%	
13.269	Thuja-2,4(10)diene	949	0.39%	
14.265	Cymene analogue	967	0.04%	
14.330	Sabinene	969	3.82%	
14.625	beta-Pinene	974	2.78%	
15.261	Myrcene	986	3.13%	
15.320	Unidentified	987	0.07%	
15.668	Unidentified	993	0.02%	
16.160	Pseudolimonene	1002	0.02%	
16.250	Unidentified	1003	0.05%	
16.305	alpha-Phellandrene	1004	0.93%	
16.456	delta-3-Carene	1006	0.44%	
16.630	Hexyl acetate	1009	0.05%	
16.967	alpha-Terpinene	1014	0.08%	
17.126	ortho-Cymene	1016	0.02%	
17.445	para-Cymene	1021	4.34%	
17.567	Methyl octyl ether	1023	0.19%	
17.759	Limonene	1026	12.16%	IFRA
17.849	beta-Phellandrene	1027	0.05%	
17.910	1,8-Cineole	1028	0.23%	
18.075	meta-Cymene	1031	0.03%	
18.138	cis-beta-Ocimene	1032	0.12%	
18.817	trans-beta-Ocimene	1042	0.07%	
18.993	Unidentified	1045	0.03%	
19.600	gamma-Terpinene	1054	0.14%	
20.381	1-Octanol	1066	0.64%	
20.505	Pinol	1068	0.03%	
21.407	trans-para-Mentha-2,8-dienol	1082	0.14%	
21.726	para-Cymenene	1087	0.12%	
22.310	Perillene	1096	0.16%	
22.341	Linalool	1096	0.29%	IFRA



Ret. Time	Component	Ret. Idx.	Conc. %	
22.395	cis-Sabinene hydrate	1097	0.04%	
22.800	Isoamyl isovalerate	1103	0.03%	
22.985	Unidentified	1106	0.23%	
23.587	beta-Thujone	1115	0.11%	IFRA
23.731	Myrcenol	1117	0.04%	
23.838	trans-para-Mentha-2,8-dienol	1118	0.05%	
24.026	cis-para-Menth-2-en-1-ol	1121	0.02%	
24.192	alpha-Campholenal	1123	0.21%	
24.354	Octyl formate	1126	0.07%	
24.603	cis-Limonene oxide	1129	0.02%	
24.841	cis-para-Mentha-2,8-dienol	1133	0.06%	
25.136	trans-Pinocarveol	1137	0.66%	
25.210	cis-Verbenol	1138	0.16%	
25.466	trans-Verbenol	1142	1.18%	
25.804	alpha-Phellandrene-8-ol	1147	0.11%	
26.271	Sabina ketone	1154	0.03%	
26.493	trans-Pinocamphone	1157	0.08%	
27.098	alpha-Phellandrene epoxide isomer	1166	0.05%	
27.260	para-Mentha-1,5-dien-8-ol	1168	0.22%	
27.887	Terpinen-4-ol	1177	0.55%	
28.311	para-Cymen-8-ol	1183	0.26%	
28.894	alpha-Terpineol	1192	0.56%	
28.945	Myrtenol	1192	0.1%	
29.228	cis-Isopiperitenol isomer	1196	0.04%	
29.433	alpha-Phellandrene epoxide	1199	0.03%	
29.676	Verbenone	1203	0.59%	
29.973	Octyl acetate	1207	9.22%	
30.522	trans-Carveol	1215	0.3%	
31.110	Methyl decyl ether	1224	0.35%	
31.420	cis-Carveol	1229	0.04%	
32.110	Unidentified	1239	0.03%	
32.211	Carvone	1240	0.12%	IFRA
33.682	3,5-Dimethoxytoluene	1262	0.06%	
34.944	Bornyl acetate	1280	0.38%	
35.105	Unidentified	1283	0.02%	
35.878	Carvacrol	1294	0.05%	
36.580	Unidentified	1304	0.06%	
37.282	Unidentified	1315	0.09%	
38.950	Unidentified	1341	0.02%	
39.119	alpha-Cubebene	1343	0.08%	



Ret. Time	Component	Ret. Idx.	Conc. %	
40.510	Cyclosativene	1364	0.03%	
40.997	alpha-Copaene	1372	0.28%	
41.159	Geranyl acetate	1374	0.05%	
41.511	beta-Bourbonene	1380	0.13%	
41.675	Hexyl hexanoate	1382	0.06%	
41.894	beta-Elemene	1385	0.21%	
42.072	Unidentified	1388	0.05%	
43.013	alpha-Gurjunene	1403	0.02%	
43.181	Decyl acetate	1405	0.03%	
43.710	Unidentified	1414	0.03%	
43.790	beta-Caryophyllene	1415	0.66%	
44.146	Unidentified	1421	0.01%	
44.439	beta-Copaene	1425	0.02%	
44.651	trans-alpha-Bergamotene	1429	0.03%	
45.163	6,9-Guaiadiene	1437	0.06%	
45.339	Aromadendrene	1440	0.02%	
45.622	Isogermacrene D	1444	0.04%	
46.032	alpha-Humulene	1451	0.16%	
46.314	Alloaromodendrene	1456	0.06%	
47.252	gamma-Murolene	1471	0.08%	
47.625	Germacrene D	1477	0.05%	
48.112	beta-Selinene	1484	0.09%	
48.281	Unidentified	1487	0.04%	
48.539	alpha-Selinene	1491	0.14%	
48.716	alpha-Murolene	1494	0.06%	
49.593	gamma-Cadinene	1508	0.14%	
49.709	Cubebol	1510	0.21%	
49.901	delta-Cadinene	1514	0.16%	
51.664	Elemol	1543	0.02%	
52.452	Unidentified	1557	0.02%	
53.337	Spathulenol	1572	0.02%	
53.649	Caryophyllene oxide	1577	0.55%	
54.373	Viridiflorol	1589	0.14%	
55.260	Humulene epoxide II	1604	0.13%	
55.499	10-epi-gamma-Eudesmol	1608	0.02%	
55.597	1,10-di-Epicubenol	1610	0.03%	
57.108	tau-Cadinol	1637	0.14%	
57.841	Eudesmol analogue	1650	0.04%	
58.693	14-Hydroxy-9-epi-(E)-Caryophyllene	1665	0.02%	
65.390	Phellandrene dimer	1789	0.03%	



Ret. Time	Component	Ret. Idx.	Conc. %	
73.107	meta-Camphorene	1941	0.03%	
73.393	Neocembrene	1947	0.04%	
74.833	Unidentified	1977	0.02%	
76.146	Verticilla-4(20),7,11-triene	2004	0.04%	
81.845	Cembrenol	2128	0.03%	
82.323	Incensole	2138	0.3%	
82.432	Serratol	2141	0.25%	
83.184	Incensyl acetate	2158	0.23%	

Total Identified Compounds **99.21 %**

