



Essential Oil University

GC/MS Report

Item	Lot
Frankincense EO, Sacra <i>Boswellia sacra</i>	2R
Date	Analyst
1/16/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Frankincense EO, Sacra, meets the expected chemical profile for authentic essential oil of *Boswellia sacra*. 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, Sacra**Botanical Name:** Boswellia sacra**Lot Number:** 2R**Production Method:** Hydrodistillation**Sample Type:** EO - Single**Country of Origin:** Oman; India**Analysis Date:** 1/16/2025**Manufacture Date:** August 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

+29.56

1.46857

0.86184



Ret. Time	Component	Ret. Idx.	Conc. %	
4.973	2,5,5-Trimethyl-1,3-cyclopentadiene	722	0.01%	
5.481	Unidentified	746	0.01%	
5.736	2,3-Dihydrotoluene	758	0.03%	
5.837	Toluene	763	0.45%	IFRA
6.201	3-Methylene cyclohexene	781	0.01%	
6.829	3,3,5,5-Tetramethylcyclopentene	806	0.02%	
7.583	Unidentified	826	0.01%	
7.711	Unidentified	829	0.01%	
7.833	6,6-Dimethylhepta-2,4-diene	833	0.08%	
9.613	Unidentified	880	0.05%	
11.079	Unidentified	913	0.01%	
11.230	Unidentified	916	0.02%	
11.417	Hashishene	919	0.62%	
11.534	Tricyclene	922	0.1%	
11.685	alpha-Thujene	924	1.24%	
12.153	alpha-Pinene	933	73.45%	
12.288	Unidentified	935	0.02%	
12.437	Unidentified	938	0.02%	
12.609	Thujadiene isomer	941	0.02%	
12.876	alpha-Fenchene	946	0.03%	
12.971	Camphene	948	2.45%	
13.167	Thuja-2,4(10)-diene	952	0.87%	
13.271	Unidentified	954	0.06%	
13.551	Unidentified	959	0.01%	
14.048	Bois de Rose oxide	968	0.01%	
14.137	Cymene analogue	969	0.07%	
14.217	Sabinene	971	0.87%	
14.517	beta-Pinene	976	1.66%	
14.650	Unidentified	979	0.01%	
14.811	Unidentified	982	0.01%	
14.867	6-Methyl hept-5-en-2-one	983	0.01%	
15.142	Myrcene	988	1.04%	
15.207	Unidentified	989	0.17%	
15.385	Unidentified	992	0.01%	
15.556	Unidentified	996	0.06%	
16.045	Pseudolimonene	1004	0.05%	
16.110	Menthatriene analogue	1005	0.1%	
16.188	alpha-Phellandrene	1006	0.13%	
16.254	para-Methyl anisole	1007	0.13%	
16.335	Unidentified	1008	0.61%	



Ret. Time	Component	Ret. Idx.	Conc. %	
16.701	1,4-Cineole	1014	0.18%	
16.844	alpha-Terpinene	1016	0.36%	
17.001	ortho-Cymene	1019	0.02%	
17.325	para-Cymene	1024	3.32%	
17.625	Limonene	1028	6.26%	IFRA
17.721	beta-Phellandrene	1030	0.23%	
17.796	1,8-Cineole	1031	0.4%	
17.951	meta-Cymene	1033	0.06%	
18.017	cis-beta-Ocimene	1034	0.09%	
18.689	trans-beta-Ocimene	1045	0.06%	
19.468	gamma-Terpinene	1057	0.75%	
20.371	Pinol	1071	0.27%	
20.500	Unidentified	1073	0.02%	
21.257	Terpinolene	1084	0.35%	
21.577	para-Cymenene	1089	0.72%	
22.123	Perillene	1098	0.04%	
22.211	Linalool	1099	0.03%	IFRA
22.674	Unidentified	1106	0.01%	
23.103	1,3,8-para-Menthatriene	1112	0.01%	
23.455	beta-Thujone	1117	0.03%	IFRA
23.527	endo-Fenchol	1118	0.03%	
24.047	alpha-Campholenal	1126	0.23%	
24.576	Menthatriene analogue	1133	0.01%	
24.991	trans-Pinocarveol	1139	0.33%	
25.315	trans-Verbenol	1144	0.02%	
25.424	Camphor	1146	0.03%	
25.657	alpha-Phellandrene-8-ol	1149	0.12%	
26.349	trans-Pinocamphone	1159	0.11%	
27.125	Unidentified	1170	0.05%	
27.418	Isopinocamphone	1175	0.01%	
27.735	Terpinen-4-ol	1179	0.5%	
28.030	4'-Methyl acetophenone	1184	0.01%	
28.167	para-Cymen-8-ol	1186	0.06%	
28.745	alpha-Terpineol	1194	0.15%	
28.750	Myrtenol	1194	0.17%	
28.959	Estragole	1197	0.02%	IFRA
29.531	Verbenone	1206	0.09%	
30.362	trans-Carveol	1218	0.01%	
31.706	Unidentified	1238	0.01%	
32.061	Carvone	1243	0.01%	IFRA



Ret. Time	Component	Ret. Idx.	Conc. %	
33.530	3,5-Dimethoxytoluene	1264	0.01%	
34.786	Bornyl acetate	1283	0.15%	
38.916	alpha-Terpinyl acetate	1345	0.02%	
40.804	alpha-Copaene	1374	0.01%	
41.320	beta-Bourbonene	1382	0.03%	
41.701	beta-Elemene	1388	0.06%	
43.598	beta-Caryophyllene	1418	0.02%	
47.919	beta-Selinene	1487	0.01%	

Total Identified Compounds **98.85 %**

