



# Essential Oil University

## GC/MS Report

|                                                             |                      |
|-------------------------------------------------------------|----------------------|
| Item                                                        | Lot                  |
| Frankincense EO, Carterii, P&N<br><i>Boswellia carterii</i> | 0A                   |
| Date                                                        | Analyst              |
| 8/29/2025                                                   | Dr. Robert S. Pappas |

© Copyright 2025 by Essential Oil University. All rights reserved. Any publishing, copying, use, dissemination, or distribution of this report, including online, without the express written permission of Essential Oil University is strictly prohibited.

**The analysis of this batch sample, Frankincense EO, Carterii, P&N, 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, P&N**Botanical Name:** Boswellia carterii**Lot Number:** 0A**Production Method:** Hydrodistillation**Sample Type:** EO - Single**Country of Origin:** Somaliland**Analysis Date:** 8/29/2025**Manufacture Date:** August 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

-9.32

1.46850

0.86426



| Ret. Time | Component                   | Ret. Idx. | Conc. % |      |
|-----------|-----------------------------|-----------|---------|------|
| 3.766     | Unidentified                | 585       | 0%      |      |
| 6.231     | Toluene                     | 763       | 0.05%   | IFRA |
| 6.440     | Unidentified                | 772       | 0%      |      |
| 8.380     | 6,6-Dimethylhepta-2,4-diene | 832       | 0.01%   |      |
| 10.278    | Unidentified                | 880       | 0.01%   |      |
| 11.602    | Unidentified                | 909       | 0.01%   |      |
| 12.178    | Hashishene                  | 919       | 0.1%    |      |
| 12.304    | Tricyclene                  | 921       | 0.08%   |      |
| 12.457    | alpha-Thujene               | 924       | 10%     |      |
| 12.590    | Unidentified                | 926       | 0.01%   |      |
| 12.919    | alpha-Pinene                | 932       | 45.91%  |      |
| 13.417    | Thujadiene isomer           | 941       | 0.33%   |      |
| 13.705    | alpha-Fenchene              | 946       | 0.02%   |      |
| 13.806    | Camphene                    | 948       | 0.58%   |      |
| 14.004    | Thuja-2,4(10)diene          | 951       | 0.19%   |      |
| 15.098    | Sabinene                    | 971       | 5.5%    |      |
| 15.415    | beta-Pinene                 | 976       | 3.99%   |      |
| 15.900    | Unidentified                | 985       | 0%      |      |
| 16.030    | Myrcene                     | 987       | 2.74%   |      |
| 16.120    | Unidentified                | 989       | 0.02%   |      |
| 16.482    | Unidentified                | 995       | 0.01%   |      |
| 16.970    | Pseudolimonene              | 1003      | 0.03%   |      |
| 17.045    | Unidentified                | 1004      | 0.02%   |      |
| 17.127    | alpha-Phellandrene          | 1006      | 1.1%    |      |
| 17.276    | delta-3-Carene              | 1008      | 1.83%   |      |
| 17.435    | Hexyl acetate               | 1010      | 0.02%   |      |
| 17.785    | alpha-Terpinene             | 1015      | 0.17%   |      |
| 17.938    | ortho-Cymene                | 1018      | 0.04%   |      |
| 18.276    | para-Cymene                 | 1023      | 3.14%   |      |
| 18.399    | Unidentified                | 1025      | 0.19%   |      |
| 18.590    | Limonene                    | 1028      | 9.17%   | IFRA |
| 18.695    | beta-Phellandrene           | 1029      | 0.33%   |      |
| 18.787    | 1,8-Cineole                 | 1031      | 0.14%   |      |
| 18.968    | cis-beta-Ocimene            | 1033      | 0.06%   |      |
| 19.666    | trans-beta-Ocimene          | 1044      | 0.04%   |      |
| 19.884    | Unidentified                | 1047      | 0.05%   |      |
| 20.483    | gamma-Terpinene             | 1056      | 0.83%   |      |
| 21.272    | Octanol                     | 1068      | 0.21%   |      |
| 21.445    | Pinol                       | 1071      | 0.01%   |      |
| 22.320    | Terpinolene                 | 1084      | 0.12%   |      |



| Ret. Time | Component                    | Ret. Idx. | Conc. % |      |
|-----------|------------------------------|-----------|---------|------|
| 22.633    | para-Cymenene                | 1088      | 0.06%   |      |
| 22.972    | Unidentified                 | 1094      | 0.01%   |      |
| 23.180    | Perillene                    | 1097      | 0.03%   |      |
| 23.271    | Linalool                     | 1098      | 0.16%   | IFRA |
| 23.382    | Unidentified                 | 1100      | 0.02%   |      |
| 23.735    | Isoamyl isovalerate          | 1105      | 0.03%   |      |
| 23.755    | Unidentified                 | 1105      | 0.03%   |      |
| 23.973    | Unidentified                 | 1108      | 0.03%   |      |
| 24.186    | Unidentified                 | 1111      | 0.03%   |      |
| 24.557    | beta-Thujone                 | 1117      | 0.26%   | IFRA |
| 24.670    | Myrcenol                     | 1118      | 0.02%   |      |
| 24.813    | trans-para-Mentha-2,8-dienol | 1120      | 0.02%   |      |
| 25.010    | cis-para-Menth-2-en-1-ol     | 1123      | 0.02%   |      |
| 25.170    | alpha-Campholenal            | 1125      | 0.12%   |      |
| 25.300    | Unidentified                 | 1127      | 0.02%   |      |
| 25.571    | cis-Limonene oxide           | 1131      | 0.03%   |      |
| 25.839    | Unidentified                 | 1135      | 0.03%   |      |
| 26.040    | trans-Sabinol                | 1138      | 0.05%   |      |
| 26.151    | trans-Pinocarveol            | 1139      | 0.26%   |      |
| 26.215    | cis-Verbenol                 | 1140      | 0.06%   |      |
| 26.461    | trans-Verbenol               | 1144      | 0.39%   |      |
| 26.811    | alpha-Phellandrene-8-ol      | 1149      | 0.04%   |      |
| 27.295    | Unidentified                 | 1156      | 0.02%   |      |
| 27.507    | Unidentified                 | 1159      | 0.04%   |      |
| 27.640    | Unidentified                 | 1161      | 0.07%   |      |
| 28.096    | Unidentified                 | 1167      | 0.1%    |      |
| 28.273    | para-Mentha-1,5-dien-8-ol    | 1170      | 0.14%   |      |
| 28.762    | Unidentified                 | 1177      | 0.01%   |      |
| 28.908    | Terpinen-4-ol                | 1179      | 0.46%   |      |
| 29.325    | para-Cymen-8-ol              | 1185      | 0.07%   |      |
| 29.667    | Unidentified                 | 1190      | 0.02%   |      |
| 29.918    | alpha-Terpineol              | 1194      | 0.44%   |      |
| 30.247    | Unidentified                 | 1198      | 0.02%   |      |
| 30.460    | alpha-Phellandrene epoxide   | 1201      | 0.04%   |      |
| 30.729    | Verbenone                    | 1205      | 0.16%   |      |
| 30.951    | Octyl acetate                | 1209      | 3.21%   |      |
| 31.533    | trans-Carveol                | 1217      | 0.09%   |      |
| 32.107    | 1-Methoxydecane              | 1225      | 0.23%   |      |
| 32.449    | cis-Carveol                  | 1230      | 0.03%   |      |
| 33.151    | Unidentified                 | 1241      | 0.03%   |      |



| Ret. Time | Component                 | Ret. Idx. | Conc. % |      |
|-----------|---------------------------|-----------|---------|------|
| 33.252    | Carvone                   | 1242      | 0.06%   | IFRA |
| 33.602    | Unidentified              | 1247      | 0.02%   |      |
| 34.706    | 3,5-Dimethoxytoluene      | 1263      | 0.02%   |      |
| 36.023    | Bornyl acetate            | 1283      | 0.14%   |      |
| 36.901    | Carvacrol                 | 1295      | 0.02%   |      |
| 40.198    | alpha-Cubebene            | 1345      | 0.08%   |      |
| 41.646    | Cyclosativene             | 1367      | 0.03%   |      |
| 42.091    | alpha-Copaene             | 1374      | 0.33%   |      |
| 42.621    | beta-Bourbonene           | 1382      | 0.08%   |      |
| 42.910    | Unidentified              | 1386      | 0.02%   |      |
| 42.973    | beta-Elementene           | 1387      | 0.24%   |      |
| 44.127    | alpha-Gurjunene           | 1405      | 0.03%   |      |
| 44.918    | beta-Caryophyllene        | 1418      | 2.65%   |      |
| 45.560    | beta-Copaene              | 1428      | 0.02%   |      |
| 45.741    | trans-alpha-Bergamotene   | 1431      | 0.03%   |      |
| 47.168    | alpha-Humulene            | 1454      | 0.18%   |      |
| 47.435    | Alloaromodendrene         | 1458      | 0.06%   |      |
| 48.185    | cis-Cadina-1(6),4-diene   | 1470      | 0.02%   |      |
| 48.363    | trans-Cadina-1(6),4-diene | 1473      | 0.14%   |      |
| 48.753    | Germacrene D              | 1479      | 0.14%   |      |
| 49.120    | Unidentified              | 1485      | 0.02%   |      |
| 49.252    | beta-Selinene             | 1487      | 0.12%   |      |
| 49.440    | gamma-Amorphene           | 1490      | 0.04%   |      |
| 49.670    | alpha-Selinene            | 1494      | 0.16%   |      |
| 49.819    | alpha-Murolene            | 1496      | 0.06%   |      |
| 50.708    | gamma-Cadinene            | 1511      | 0.19%   |      |
| 50.834    | Cubebol                   | 1513      | 0.12%   |      |
| 51.007    | delta-Cadinene            | 1516      | 0.19%   |      |
| 52.108    | Unidentified              | 1534      | 0.01%   |      |
| 53.621    | Unidentified              | 1560      | 0.01%   |      |
| 54.328    | Unidentified              | 1572      | 0.01%   |      |
| 54.480    | Spathulenol               | 1574      | 0.01%   |      |
| 54.810    | Caryophyllene oxide       | 1580      | 0.25%   |      |
| 55.532    | Viridiflorol              | 1592      | 0.03%   |      |
| 56.419    | Humulene epoxide II       | 1607      | 0.05%   |      |
| 56.742    | Unidentified              | 1613      | 0.03%   |      |
| 58.244    | epi-alpha-Cadinol         | 1639      | 0.13%   |      |
| 58.997    | Unidentified              | 1653      | 0.02%   |      |
| 74.577    | Neocembrene               | 1950      | 0.01%   |      |
| 77.380    | Unidentified              | 2008      | 0.01%   |      |



| Ret. Time | Component        | Ret. Idx. | Conc. % |  |
|-----------|------------------|-----------|---------|--|
| 83.534    | Incensole        | 2142      | 0.07%   |  |
| 83.626    | Serratol         | 2144      | 0.07%   |  |
| 84.376    | Incensyl acetate | 2161      | 0.07%   |  |

Total Identified Compounds **99 %**



TIC  
29,725,164

