



# Essential Oil University

## GC/MS Report

| Item                                                   | Lot                         |
|--------------------------------------------------------|-----------------------------|
| <b>Marjoram (Sweet) EO</b><br><i>Origanum majorana</i> | <b>5X</b>                   |
| Date                                                   | Analyst                     |
| <b>10/16/2025</b>                                      | <b>Dr. Robert S. Pappas</b> |

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**The analysis of this batch sample, Marjoram (Sweet) EO, meets the expected chemical profile for authentic essential oil of *Origanum majorana*. 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:** Marjoram (Sweet) EO**Botanical Name:** *Origanum majorana***Lot Number:** 5X**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Egypt**Analysis Date:** 10/16/2025**Manufacture Date:** August 2023

## 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

+4.72

1.47463

0.89810



| Ret. Time | Component                  | Ret. Idx. | Conc. % |               |
|-----------|----------------------------|-----------|---------|---------------|
| 5.976     | Methyl 2-methylbutyrate    | 770       | 0.01%   |               |
| 6.424     | Unidentified               | 791       | 0%      |               |
| 11.393    | Hashishene                 | 919       | 0.01%   |               |
| 11.658    | alpha-Thujene              | 924       | 0.54%   |               |
| 12.057    | alpha-Pinene               | 931       | 0.51%   | ALLERGEN      |
| 12.944    | Camphene                   | 947       | 0.02%   |               |
| 14.197    | Sabinene                   | 971       | 2.49%   |               |
| 14.490    | beta-Pinene                | 976       | 0.29%   | ALLERGEN      |
| 14.872    | 3-Octanone                 | 983       | 0.02%   |               |
| 15.115    | Myrcene                    | 987       | 1.28%   | PROP. 65      |
| 16.019    | Pseudolimonene             | 1003      | 0.04%   |               |
| 16.161    | alpha-Phellandrene         | 1006      | 0.41%   |               |
| 16.681    | 1,4-Cineole                | 1014      | 0.01%   |               |
| 16.842    | alpha-Terpinene            | 1016      | 10.74%  | ALLERGEN      |
| 17.296    | para-Cymene                | 1023      | 1.33%   |               |
| 17.589    | Limonene                   | 1028      | 1.32%   | ALLERGEN IFRA |
| 17.689    | beta-Phellandrene          | 1029      | 1.38%   |               |
| 17.764    | 1,8-Cineole                | 1030      | 0.2%    |               |
| 17.983    | cis-beta-Ocimene           | 1034      | 0.02%   |               |
| 18.660    | trans-beta-Ocimene         | 1044      | 0.03%   |               |
| 19.478    | gamma-Terpinene            | 1057      | 11.56%  |               |
| 20.230    | trans-Sabinene hydrate     | 1068      | 3.42%   |               |
| 21.234    | Terpinolene                | 1084      | 2.54%   | ALLERGEN      |
| 21.553    | para-Cymenene              | 1089      | 0.01%   |               |
| 21.904    | Unidentified               | 1094      | 0.01%   |               |
| 22.226    | Linalool                   | 1099      | 7.05%   | ALLERGEN IFRA |
| 22.296    | cis-Sabinene hydrate       | 1100      | 3.94%   |               |
| 23.066    | Unidentified               | 1111      | 0%      |               |
| 23.857    | cis-para-Menth-2-en-1-ol   | 1123      | 0.75%   |               |
| 23.999    | Unidentified               | 1125      | 0.03%   |               |
| 24.626    | Terpin-3-en-1-ol           | 1134      | 0.02%   |               |
| 24.960    | trans-Pinocarveol          | 1139      | 0.07%   |               |
| 25.081    | trans-para-Menth-2-en-1-ol | 1141      | 0.59%   |               |
| 25.570    | cis-beta-Terpineol         | 1148      | 0.07%   | ALLERGEN      |
| 27.023    | delta-Terpineol            | 1169      | 0.02%   | ALLERGEN      |
| 27.127    | Borneol                    | 1171      | 0.04%   |               |
| 27.854    | Terpinen-4-ol              | 1181      | 35.23%  |               |
| 28.147    | para-Cymen-8-ol            | 1185      | 0.05%   |               |
| 28.557    | Unidentified               | 1191      | 0.02%   |               |
| 28.755    | alpha-Terpineol            | 1194      | 5.3%    | ALLERGEN      |



| Ret. Time | Component                        | Ret. Idx. | Conc. % |               |
|-----------|----------------------------------|-----------|---------|---------------|
| 28.855    | cis-Piperitol                    | 1196      | 0.2%    |               |
| 28.924    | cis-Dihydrocarvone               | 1197      | 0.08%   |               |
| 29.349    | trans-Dihydrocarvone             | 1203      | 0.04%   |               |
| 29.664    | trans-Piperitol                  | 1208      | 0.44%   |               |
| 30.334    | trans-Carveol                    | 1217      | 0.01%   |               |
| 30.640    | Unidentified                     | 1222      | 0.01%   |               |
| 30.695    | Unidentified                     | 1223      | 0.03%   |               |
| 30.850    | Citronellol                      | 1225      | 0.02%   | ALLERGEN IFRA |
| 31.044    | Unidentified                     | 1228      | 0.01%   |               |
| 31.671    | Carvacryl methyl ether           | 1237      | 0%      |               |
| 32.024    | Carvone                          | 1242      | 0.01%   | ALLERGEN IFRA |
| 32.429    | Linalyl acetate                  | 1248      | 4.04%   | ALLERGEN      |
| 34.058    | cis-Ascaridol glycol             | 1272      | 0.08%   |               |
| 34.745    | Bornyl acetate                   | 1282      | 0.03%   |               |
| 35.141    | Thymol                           | 1288      | 0.01%   |               |
| 35.240    | trans-Ascaridol glycol           | 1290      | 0.05%   |               |
| 35.534    | Terpin-1-en-4-yl acetate         | 1294      | 0.16%   |               |
| 35.671    | Carvacrol                        | 1296      | 0.02%   |               |
| 35.959    | Unidentified                     | 1300      | 0.01%   |               |
| 37.197    | Unidentified                     | 1319      | 0.1%    |               |
| 37.906    | delta-Elemene                    | 1330      | 0.05%   |               |
| 39.653    | Neryl acetate                    | 1356      | 0.03%   |               |
| 40.434    | Isodene                          | 1368      | 0.01%   |               |
| 40.937    | Geranyl acetate                  | 1376      | 0.05%   | ALLERGEN      |
| 41.998    | Unidentified                     | 1392      | 0.01%   |               |
| 43.172    | Thymohydroquinone dimethyl ether | 1411      | 0.01%   |               |
| 43.557    | beta-Caryophyllene               | 1417      | 1.82%   | ALLERGEN      |
| 44.026    | Unidentified                     | 1424      | 0.01%   |               |
| 44.458    | Unidentified                     | 1431      | 0.03%   |               |
| 44.730    | Aromadendrene                    | 1436      | 0.06%   |               |
| 45.794    | alpha-Humulene                   | 1453      | 0.08%   |               |
| 46.069    | Alloaromodendrene                | 1457      | 0.02%   |               |
| 46.196    | Unidentified                     | 1459      | 0.01%   |               |
| 47.389    | Germacrene D                     | 1478      | 0.01%   |               |
| 47.765    | Unidentified                     | 1484      | 0.02%   |               |
| 47.852    | Unidentified                     | 1486      | 0.03%   |               |
| 48.001    | Viridiflorene                    | 1488      | 0.25%   |               |
| 48.272    | Bicyclogermacrene                | 1493      | 0.57%   |               |
| 48.839    | trans,trans-alpha-Farnesene      | 1502      | 0.01%   |               |
| 49.652    | delta-Cadinene                   | 1515      | 0.01%   |               |



| Ret. Time | Component           | Ret. Idx. | Conc. % |  |
|-----------|---------------------|-----------|---------|--|
| 53.094    | Spathulenol         | 1574      | 0.04%   |  |
| 53.404    | Caryophyllene oxide | 1579      | 0.04%   |  |
| 53.614    | Globulol            | 1582      | 0.02%   |  |
| 54.129    | Viridiflorol        | 1591      | 0.02%   |  |
| 56.321    | Unidentified        | 1630      | 0.06%   |  |

Total Identified Compounds **99.6 %**



TIC  
11,408,264

