



# Essential Oil University

## GC/MS Report

| Item                                            | Lot                  |
|-------------------------------------------------|----------------------|
| Pink Grapefruit EO CP<br><i>Citrus paradisi</i> | 3A                   |
| Date                                            | Analyst              |
| 12/16/2024                                      | Dr. Robert S. Pappas |

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**The analysis of this batch sample, Pink Grapefruit EO CP, meets the expected chemical profile for authentic essential oil of *Citrus paradisi*. 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:** Pink Grapefruit EO CP**Botanical Name:** Citrus paradisi**Lot Number:** 3A**Production Method:** Cold Press**Sample Type:** EO - Single**Country of Origin:** USA**Analysis Date:** 12/16/2024**Manufacture Date:** November 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

+95.32

1.47527

0.85205



| Ret. Time | Component            | Ret. Idx. | Conc. % |      |
|-----------|----------------------|-----------|---------|------|
| 12.238    | alpha-Pinene         | 931       | 0.69%   |      |
| 14.395    | Sabinene             | 970       | 0.51%   |      |
| 14.690    | beta-Pinene          | 975       | 0.11%   |      |
| 15.327    | Myrcene              | 987       | 2.31%   |      |
| 16.163    | Octanal              | 1002      | 0.41%   |      |
| 16.380    | alpha-Phellandrene   | 1005      | 0.04%   |      |
| 17.535    | para-Cymene          | 1023      | 0.04%   |      |
| 17.940    | Limonene             | 1029      | 93.87%  | IFRA |
| 17.995    | beta-Phellandrene    | 1030      | 0.2%    |      |
| 18.897    | trans-beta-Ocimene   | 1044      | 0.04%   |      |
| 19.677    | Unidentified         | 1055      | 0.01%   |      |
| 20.483    | Octanol              | 1068      | 0.02%   |      |
| 22.428    | Linalool             | 1098      | 0.05%   | IFRA |
| 22.788    | Nonanal              | 1103      | 0.05%   |      |
| 23.927    | Unidentified         | 1119      | 0.01%   |      |
| 24.683    | cis-Limonene oxide   | 1130      | 0.03%   |      |
| 24.979    | trans-Limonene oxide | 1135      | 0.02%   |      |
| 26.022    | Citronellal          | 1150      | 0.03%   | IFRA |
| 28.966    | alpha-Terpineol      | 1193      | 0.08%   |      |
| 29.757    | Decanal              | 1204      | 0.18%   |      |
| 30.048    | Octyl acetate        | 1208      | 0.05%   |      |
| 31.911    | Neral                | 1236      | 0.01%   | IFRA |
| 32.304    | Unidentified         | 1242      | 0.01%   |      |
| 32.729    | Unidentified         | 1248      | 0.01%   |      |
| 33.917    | Geranial             | 1265      | 0.04%   | IFRA |
| 39.172    | Unidentified         | 1344      | 0.01%   |      |
| 41.078    | alpha-Copaene        | 1373      | 0.08%   |      |
| 41.228    | Geranyl acetate      | 1375      | 0.01%   |      |
| 41.861    | beta-Cubebene        | 1385      | 0.06%   |      |
| 41.974    | beta-Elemene         | 1387      | 0.02%   |      |
| 43.869    | beta-Caryophyllene   | 1416      | 0.46%   |      |
| 46.107    | alpha-Humulene       | 1452      | 0.02%   |      |
| 47.706    | Germacrene D         | 1478      | 0.04%   |      |
| 49.981    | delta-Cadinene       | 1515      | 0.07%   |      |
| 51.748    | Elemol               | 1545      | 0.01%   |      |
| 65.869    | Nootkatone           | 1797      | 0.05%   | IFRA |
| 81.331    | Ostole               | 2116      | 0.02%   |      |
| 85.405    | Unidentified         | 2208      | 0.05%   |      |
| 85.824    | Unidentified         | 2218      | 0.07%   |      |
| 101.366   | Aurapten             | 2606      | 0.24%   |      |



| Ret. Time | Component | Ret. Idx. | Conc. % |  |
|-----------|-----------|-----------|---------|--|
|-----------|-----------|-----------|---------|--|

Total Identified Compounds **99.86 %**

