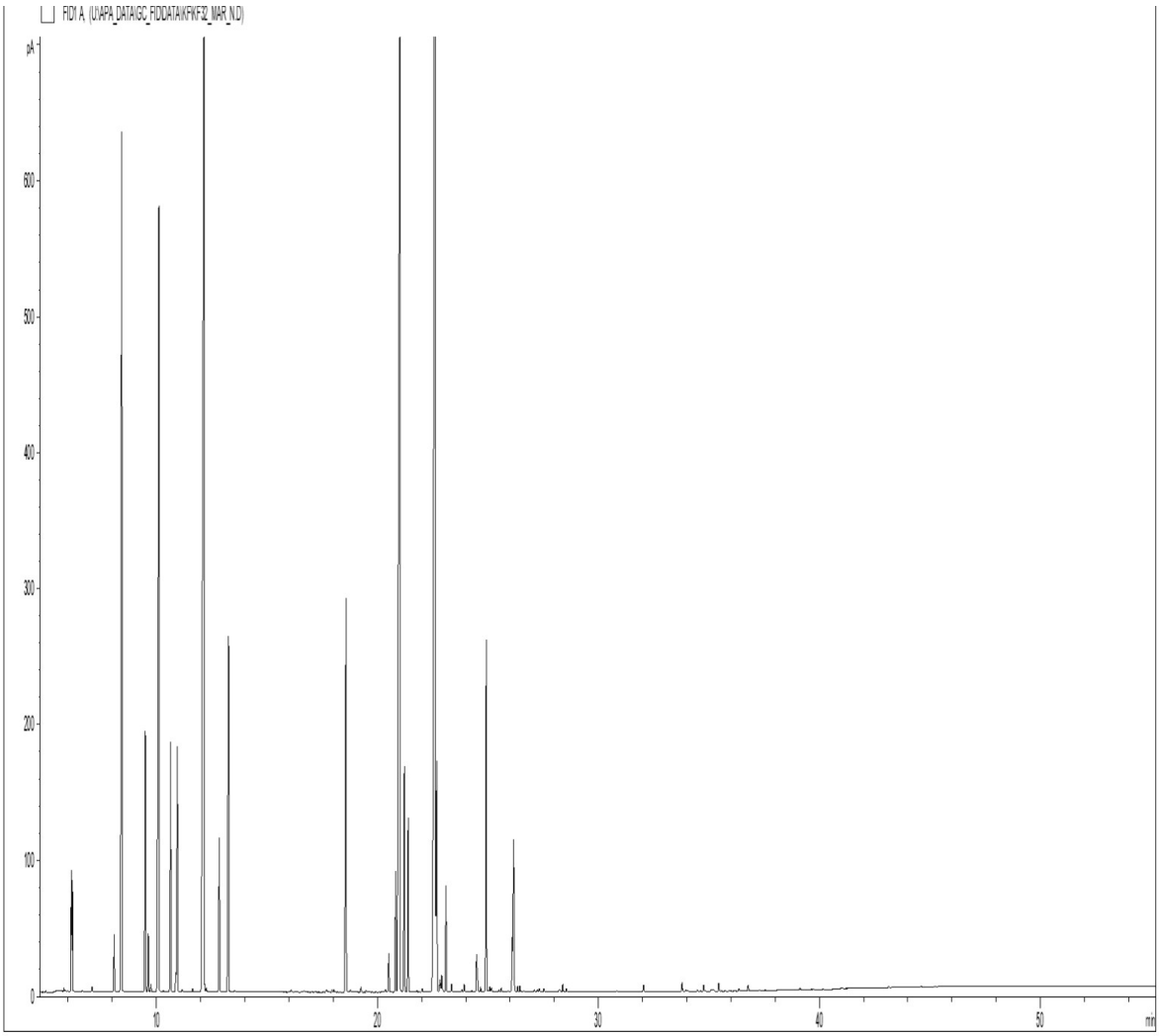
# MALIKA ESSENTIALS

## GC/MS ANALYSIS REPORT

| | |
|---|---|
| **Product Name** | Sweet Marjoram Essential Oil |
| **Botanical Name** | Origanum majorana |
| **Analysis Date** | August 30, 2023 |

*Note: This GC/MS report is a representative analysis of this product. Due to volume turnover, it is not specific to an individual lot; specific lots may vary slightly, as is the case with natural products. The lot-specific quality document for each batch is its Certificate of Analysis.*

### Chromatogram




## Identified Compounds

| Peak | RT (min) | Compound name | % |
|---|---|---|---|
| 1 | 4.56 | BUTANAL, 2-METHYL- | 0.01 |
| 2 | 4.60 | ISOVALERALDEHYDE | 0.01 |
| 3 | 4.99 | FURAN, 2-ETHYL- | 0.01 |
| 4 | 5.81 | METHYL 2-METHYLBUTYRATE | 0.04 |
| 5 | 5.89 | TRICYCLENE | 0.01 |
| 6 | 5.97 | METHYL ISOVALERATE | 0.02 |
| 7 | 6.14 | alpha-PINENE | 0.83 |
| 8 | 6.19 | alpha-THUYENE | 0.70 |
| 9 | 7.08 | CAMPHENE | 0.03 |
| 10 | 8.08 | beta-PINENE | 0.46 |
| 11 | 8.42 | SABINENE | 8.25 |
| 12 | 9.49 | beta-MYRCENE | 2.13 |
| 13 | 9.62 | alpha-PHELLANDRENE | 0.44 |
| 14 | 9.75 | psi-LIMONENE | 0.07 |
| 15 | 10.10 | alpha-TERPINENE | 8.67 |
| 16 | 10.31 | 1,8-CINEOLE, 2,3-DEHYDRO- | 0.01 |
| 17 | 10.63 | LIMONENE | 2.03 |
| 18 | 10.85 | 1,8-CINEOLE | 0.16 |
| 19 | 10.94 | beta-PHELLANDRENE | 2.00 |
| 20 | 11.17 | 2-HEXENAL | 0.02 |
| 21 | 11.63 | cis-beta-OCIMENE | 0.03 |

| | | | |
|---|---|---|---|
| 22 | 12.14 | gamma-TERPINENE | 13.85 |
| 23 | 12.16 | trans-beta-OCIMENE | 0.05 |
| 24 | 12.25 | 3-OCTANONE | 0.04 |
| 25 | 12.84 | p-CYMENE | 1.22 |
| 26 | 13.25 | TERPINOLENE | 3.20 |
| 27 | 13.54 | TRIDECANE | 0.01 |
| 28 | 16.09 | 3-HEXEN-1-OL | 0.02 |
| 29 | 16.56 | NONANAL | 0.01 |
| 30 | 16.66 | COSMENE ISOMER | 0.02 |
| 31 | 16.73 | 2-HEXEN-1-OL | 0.01 |
| 32 | 17.69 | alpha,p-DIMETHYLSTYRENE | 0.03 |
| 33 | 17.93 | MENTHATRIENE ISOMER | 0.02 |
| 34 | 18.01 | ALKAN COMPOUND | 0.02 |
| 35 | 18.57 | trans-THUYANOL | 3.46 |
| 36 | 18.78 | EPOXY-4,8-TERPINOLENE | 0.03 |
| 37 | 19.25 | delta-ELEMENE | 0.05 |
| 38 | 19.50 | alpha-CAMPHOLENAL | 0.02 |
| 39 | 19.58 | ISOMENTHONE | 0.01 |
| 40 | 20.36 | COMPOUND Mw=152 | 0.03 |
| 41 | 20.52 | E-SOLANONE | 0.35 |
| 42 | 20.83 | LINALOOL | 0.90 |
| 43 | 21.01 | cis-THUYANOL | 14.83 |
| 44 | 21.22 | LINALYL ACETATE | 1.82 |
| 45 | 21.39 | trans-p-MENTH-2-EN-1-OL | 1.49 |
| 46 | 21.79 | PINOCARVONE | 0.02 |
| 47 | 22.03 | BORNYL ACETATE | 0.03 |
| 48 | 22.36 | beta-ELEMENE | 0.01 |
| 49 | 22.61 | TERPINENE-4-OL | 22.17 |
| 50 | 22.69 | beta-CARYOPHYLLENE | 2.38 |
| 51 | 22.84 | cis-DIHYDROCARVONE | 0.13 |
| 52 | 22.91 | TERPENIC COMPOUND | 0.18 |
| 53 | 23.10 | cis-p-MENTH-2-EN-1-OL | 0.86 |
| 54 | 23.36 | trans-DIHYDROCARVONE | 0.07 |
| 55 | 23.83 | trans-PINOCARVYL ACETATE | 0.03 |
| 56 | 23.93 | trans-PINOCARVEOL | 0.07 |
| 57 | 24.28 | FARNESENE ISOMER | 0.02 |
| 58 | 24.49 | cis-PIPERITOL | 0.33 |
| 59 | 24.52 | alpha-HUMULENE | 0.11 |
| 60 | 24.67 | LAVANDULAL | 0.05 |
| 61 | 24.93 | alpha-TERPINEOL | 3.11 |
| 62 | 25.02 | TERPENYL ACETATE | 0.02 |
| 63 | 25.09 | BORNEOL | 0.05 |
| 64 | 25.17 | LEDENE | 0.04 |
| 65 | 25.51 | GERMACRENE D | 0.02 |
| 66 | 25.61 | NERYL ACETATE | 0.04 |
| 67 | 25.92 | PIPERITONE | 0.01 |
| 68 | 25.97 | CARVONE | 0.01 |
| 69 | 26.11 | trans-PIPERITOL | 0.44 |
| 70 | 26.17 | BICYCLOGERMACRENE | 1.39 |
| 71 | 26.35 | GERANYL ACETATE | 0.05 |
| 72 | 26.45 | CITRONELLOL | 0.06 |
| 73 | 26.64 | delta-CADINENE | 0.02 |
| 74 | 27.11 | METHYL SALICYLATE | 0.02 |
| 75 | 27.25 | CAMPHOLENOL | 0.03 |
| 76 | 27.34 | NEROL | 0.04 |
| 77 | 27.54 | AROMATIC COMPOUND | 0.03 |
| 78 | 28.24 | trans-ANETHOL | 0.03 |
| 79 | 28.28 | trans-CARVEOL | 0.02 |

| | | | |
|---|---|---|---|
| 80 | 28.39 | GERANIOL | 0.07 |
| 81 | 28.56 | p-CYMENE-8-OL | 0.03 |
| 82 | 29.25 | AROMATIC COMPOUND Mw=194 | 0.01 |
| 83 | 30.85 | ALIPHATIC ESTER | 0.01 |
| 84 | 32.05 | CARYOPHYLLENE OXIDE | 0.06 |
| 85 | 33.79 | cis-1,2-DIHYDROXY-p-MENTH-2-ENE | 0.09 |
| 86 | 33.97 | CYCLOOCTANONE | 0.04 |
| 87 | 34.50 | 10-epi-gamma-EUDESMOL | 0.02 |
| 88 | 34.62 | PENTADECANONE, TRIMETHYL- | 0.01 |
| 89 | 34.77 | SPATHULENOL | 0.06 |
| 90 | 35.11 | trans-1,2-DIHYDROXY-p-MENTH-2-ENE | 0.04 |
| 91 | 35.23 | SESQUITERPENOL | 0.02 |
| 92 | 35.46 | SORBIC ACID | 0.08 |
| 93 | 35.75 | THYMOL | 0.01 |
| 94 | 36.38 | CARVACROL | 0.03 |
| 95 | 36.78 | beta-NOOTKATOL | 0.05 |
| 96 | 38.10 | AROMATIC COMPOUND Mw=178 | 0.01 |
| 97 | 38.25 | CARYOPHYLLA-2,6-DIEN-5-alpha-OL | 0.01 |
| 98 | 38.41 | SESQUITERPENOL | 0.02 |
| 99 | 39.14 | SANDARACOPIMARADIENE | 0.02 |
| 100 | 40.99 | AROMATIC COMPOUND | 0.02 |
| | | **TOTAL** | **99.97** |

*Note: The source report states TOTAL 99.97.*

*Faithful copy of the GC/MS analysis report. The original document is kept in the MALIKA Essentials archives.*