

Laboratory Test Report

SAMPLE NAME : Spearmint
CLIENT NAME : Plant Therapy
CLIENT LOT # : S30115R
APRC LOT# : PT250519B

Column : ZB5 (60 m length × 0.25 mm inner diameter × 0.25 µm film thicknes
Instrument : Shimadzu GCMS-QP2010 Ultra
Carrier gas : Helium 80 psi
Temperature ramp : 2 degrees Celsius per minute up to 260-degree Celsius
Split ratio : 30:1
Sample preparation : 5% w/v solution with Dichloromethane

Interpretation on this sample

The analysis of Spearmint sample meets the standard chemical profile of *Mentha viridis* essential oil.

Analyzed by : Dr Prabodh Satyal
Reviewed by : Ambika Poudel

Issued Date : 5/20/2025

GCMS Analysis

Sample Information

Analyzed by : Dr. Prabodh Satyal
Analyzed : 5/20/2025 2:55:05 AM
Sample Type : Essential Oil
Sample Name : Spearmint
Client Name : Plant Therapy
Client Lot# : S30115R
APRC Lot# : PT250519B
Injection Volume : 0.30

Chromatogram



Peak Report

| Peak# | R.Time | Name | Area% |
|-------|--------|--|--------|
| 1 | 6.357 | Methyl alpha-methyl butyrate | 0.02 |
| 2 | 8.926 | 2-trans-Hexenal | 0.02 |
| 3 | 10.773 | 2,5-Diethyl tetrahydrofuran | 0.07 |
| 4 | 12.039 | Hashishene | 0.10 |
| 5 | 12.313 | alpha-Thujene | 0.05 |
| 6 | 12.733 | alpha-Pinene | 0.54 |
| 7 | 13.642 | Camphene | 0.02 |
| 8 | 14.927 | Sabinene | 0.42 |
| 9 | 15.237 | beta-Pinene | 0.61 |
| 10 | 15.879 | Myrcene | 2.11 |
| 11 | 16.307 | 3-Octanol | 0.54 |
| 12 | 16.714 | n-Octanal | 0.02 |
| 13 | 16.792 | para-Mentha-1(7),8-diene | 0.02 |
| 14 | 16.852 | 3-Ethenyl-1,2-dimethyl-1,4-cyclohexadiene | 0.02 |
| 15 | 17.607 | alpha-Terpinene | 0.23 |
| 16 | 18.097 | para-Cymene | 0.08 |
| 17 | 18.499 | Limonene | 11.37 |
| 18 | 18.634 | 1,8-Cineole | 1.85 |
| 19 | 18.786 | cis-beta-Ocimene | 0.17 |
| 20 | 19.474 | trans-beta-Ocimene | 0.07 |
| 21 | 20.279 | gamma-Terpinene | 0.39 |
| 22 | 21.089 | cis-Sabinene hydrate | 1.15 |
| 23 | 22.081 | Terpinolene | 0.11 |
| 24 | 22.391 | para-Cymenene | 0.03 |
| 25 | 23.028 | Linalool | 0.07 |
| 26 | 23.145 | trans-Sabinene hydrate | 0.04 |
| 27 | 23.255 | 2-Methyl butyl-2-methyl butyrate | 0.03 |
| 28 | 24.367 | 3-Octanol acetate | 0.31 |
| 29 | 24.753 | cis-para-Menth-2-en-1-ol | 0.03 |
| 30 | 25.605 | trans-Limonene oxide | 0.05 |
| 31 | 28.645 | Terpinen-4-ol | 0.86 |
| 32 | 29.709 | alpha-Terpineol | 0.15 |
| 33 | 29.865 | cis-Dihydro carvone | 1.33 |
| 34 | 30.082 | Dihydro carveol | 0.13 |
| 35 | 30.274 | trans-Dihydro carvone | 0.13 |
| 36 | 33.530 | Carvone | 69.72 |
| 37 | 33.825 | Piperitone | 0.16 |
| 38 | 34.338 | cis-Carvone oxide | 0.05 |
| 39 | 34.710 | Isopiperitenone | 0.04 |
| 40 | 35.179 | trans-Carvone oxide | 0.10 |
| 41 | 36.375 | Dihydroedulan | 0.05 |
| 42 | 38.404 | Dihydro carvyl acetate | 0.70 |
| 43 | 39.564 | cis-3-Isopropenyl-2-methylene cyclohexyl acetate | 0.02 |
| 44 | 40.140 | Eugenol | 0.03 |
| 45 | 40.629 | cis-Carvyl acetate | 0.42 |
| 46 | 41.777 | alpha-Copaene | 0.03 |
| 47 | 42.322 | beta-Bourbonene | 1.45 |
| 48 | 42.500 | alpha-Bourbonene | 0.10 |
| 49 | 42.664 | beta-Elemene | 0.11 |
| 50 | 42.813 | cis-Jasmone | 0.35 |
| 51 | 44.525 | beta-Ylangene | 0.14 |
| 52 | 44.594 | beta-Caryophyllene | 0.90 |
| 53 | 45.225 | beta-Copaene | 0.14 |
| 54 | 46.121 | cis-Muuroala-3,5-diene | 0.13 |
| 55 | 46.646 | trans-beta-Farnesene | 0.78 |
| 56 | 46.822 | alpha-Humulene | 0.06 |
| 57 | 47.626 | trans-Cadina-1(6),4-diene | 0.09 |
| 58 | 48.430 | Germacrene D | 1.08 |
| 59 | 50.661 | delta-Cadinene | 0.04 |
| 60 | 55.200 | Viridiflorol | 0.15 |
| | | | 100.00 |