



## Sample &amp; Analysis Information

## Sample Information

**Sample Name:** Palmarosa Essential Oil**Botanical Name:** Cymbopogon martinii**Lot Number:** 13538**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Nepal**Analysis Date:** 2/12/2025**Manufacture Date:** February 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

+0.12

1.47297

0.88841

| Ret. Time | Component                 | Ret. Idx. | Conc. % |      |
|-----------|---------------------------|-----------|---------|------|
| 2.964     | Ethanol                   | 542       | 0.01%   |      |
| 3.609     | Unidentified              | 605       | 0%      |      |
| 5.141     | 1-Pentanol                | 726       | 0.02%   |      |
| 9.415     | Isoamyl acetate           | 870       | 0.01%   |      |
| 14.988    | 6-Methyl hept-5-en-2-one  | 981       | 0.05%   |      |
| 15.296    | Myrcene                   | 986       | 0.23%   |      |
| 15.500    | Unidentified              | 990       | 0%      |      |
| 16.254    | cis-Dehydrolinalool oxide | 1003      | 0.01%   |      |
| 17.768    | Limonene                  | 1026      | 0.1%    | IFRA |
| 18.167    | cis-beta-Ocimene          | 1032      | 0.33%   |      |
| 18.850    | trans-beta-Ocimene        | 1043      | 1.49%   |      |
| 20.437    | 1-Octanol                 | 1067      | 0.02%   |      |
| 21.447    | Terpinolene               | 1083      | 0.02%   |      |
| 22.389    | Linalool                  | 1097      | 2.51%   | IFRA |
| 22.610    | Unidentified              | 1100      | 0.01%   |      |
| 24.338    | allo-Ocimene              | 1125      | 0.01%   |      |
| 28.932    | alpha-Terpineol           | 1192      | 0.02%   |      |
| 30.921    | Nerol                     | 1221      | 0.09%   |      |
| 31.087    | Citronellol               | 1224      | 0.01%   | IFRA |
| 31.848    | Neral                     | 1235      | 0.13%   | IFRA |
| 32.941    | Geraniol                  | 1251      | 79.68%  | IFRA |
| 33.897    | Geranial                  | 1265      | 0.29%   | IFRA |
| 34.829    | Unidentified              | 1279      | 0.01%   |      |
| 35.223    | Unidentified              | 1284      | 0.03%   |      |
| 35.928    | Geranyl formate           | 1295      | 0.1%    |      |
| 39.914    | Unidentified              | 1355      | 0.01%   |      |
| 41.212    | Geranyl acetate           | 1375      | 11.17%  |      |
| 41.926    | beta-Elementene           | 1386      | 0.06%   |      |
| 42.810    | Unidentified              | 1399      | 0.02%   |      |
| 43.825    | beta-Caryophyllene        | 1416      | 1.43%   |      |
| 46.064    | alpha-Humulene            | 1452      | 0.08%   |      |
| 47.819    | Selina-4,11-diene         | 1480      | 0.05%   |      |
| 48.145    | beta-Selinene             | 1485      | 0.01%   |      |
| 48.364    | Valencene                 | 1488      | 0.02%   |      |
| 49.972    | (-)-alpha-Panasinsen      | 1515      | 0.02%   |      |
| 51.859    | Unidentified              | 1547      | 0.01%   |      |
| 52.157    | Geranyl butyrate          | 1552      | 0.16%   |      |
| 52.456    | trans-Nerolidol           | 1557      | 0.07%   |      |
| 53.674    | Caryophyllene oxide       | 1577      | 0.12%   |      |
| 55.006    | Geranyl isovalerate       | 1600      | 0.02%   |      |

| Ret. Time | Component         | Ret. Idx. | Conc. % |      |
|-----------|-------------------|-----------|---------|------|
| 56.855    | Unidentified      | 1633      | 0.01%   |      |
| 61.192    | (2E,6E)-Farnesol  | 1710      | 0.51%   | IFRA |
| 63.028    | Geranyl hexanoate | 1745      | 0.79%   |      |
| 67.415    | Farnesyl acetate  | 1828      | 0.05%   |      |
| 67.871    | Unidentified      | 1837      | 0.01%   |      |
| 70.829    | Unidentified      | 1895      | 0.02%   |      |
| 73.002    | Geranyl octanoate | 1939      | 0.12%   |      |
| 77.991    | Unidentified      | 2044      | 0.01%   |      |
| 85.212    | Unidentified      | 2203      | 0.01%   |      |
| 92.508    | Unidentified      | 2378      | 0.04%   |      |
| 104.672   | Unidentified      | 2697      | 0.01%   |      |
| 108.297   | Unidentified      | 2800      | 0.01%   |      |

Total Identified Compounds **99.81 %**

TIC

23,755,949

