



Aromatic Plant Research Center

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quality control for your products.

Customer : doTERRA International
Lot Number : 230822
Date Filled : 03/23/2023

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



Comments:

The analysis of this Lavender lot revealed no contaminants or adulteration.
The sample meets the expected chemical profile for authentic essential oils of *Lavandula angustifolia*.

Analysied by : Ambika Poudel
Reviewed by : Dr. Prabodh Satyal



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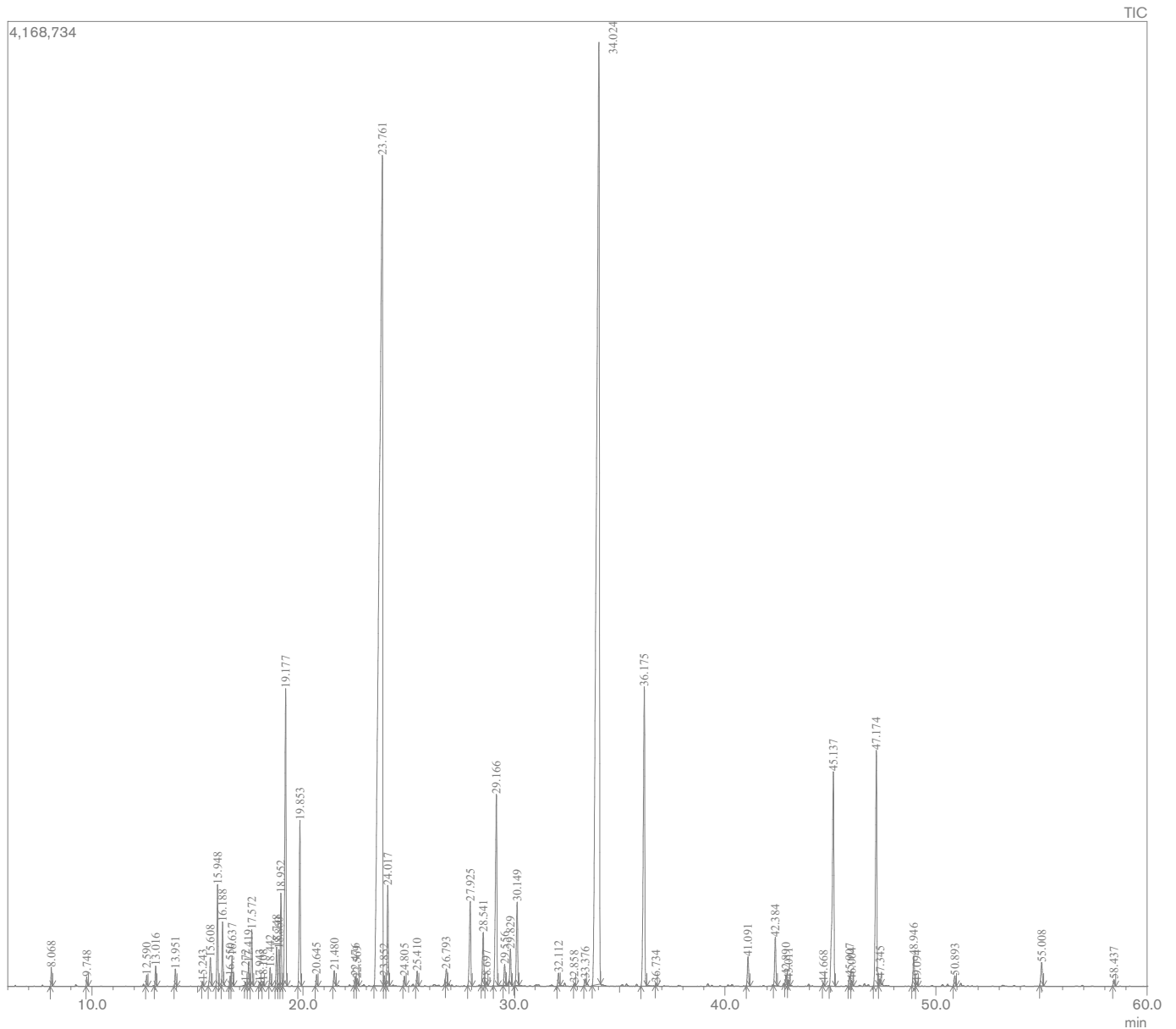
Lavender Essential Oil

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Chromatogram



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Peak Report

| Peak# | R.Time | Name | Area% |
|-------|--------|----------------------------------|--------|
| 1 | 8.068 | 1-Methoxy hexane | 0.14 |
| 2 | 9.748 | n-Hexanol | 0.08 |
| 3 | 12.590 | alpha-Thujene | 0.11 |
| 4 | 13.016 | alpha-Pinene | 0.20 |
| 5 | 13.951 | Camphene | 0.18 |
| 6 | 15.243 | Sabinene | 0.04 |
| 7 | 15.608 | 1-Octen-3-ol | 0.39 |
| 8 | 15.948 | 3-Octanone | 1.16 |
| 9 | 16.188 | Myrcene | 0.66 |
| 10 | 16.550 | Butyl butanoate | 0.11 |
| 11 | 16.637 | 3-Octanol | 0.34 |
| 12 | 17.272 | alpha-Phellandrene | 0.04 |
| 13 | 17.419 | delta-3-Carene | 0.27 |
| 14 | 17.572 | Hexyl acetate | 0.64 |
| 15 | 17.943 | alpha-Terpinene | 0.04 |
| 16 | 18.108 | meta-Cymene | 0.05 |
| 17 | 18.442 | para-Cymene | 0.22 |
| 18 | 18.748 | Limonene | 0.48 |
| 19 | 18.860 | beta-Phellandrene | 0.45 |
| 20 | 18.952 | 1,8-Cineole | 1.08 |
| 21 | 19.177 | cis-beta-Ocimene | 4.10 |
| 22 | 19.853 | trans-beta-Ocimene | 2.06 |
| 23 | 20.645 | gamma-Terpinene | 0.14 |
| 24 | 21.480 | cis-Linalool oxide (furanoid) | 0.21 |
| 25 | 22.476 | Terpinolene | 0.11 |
| 26 | 22.569 | trans-Linalool oxide (furanoid) | 0.11 |
| 27 | 23.761 | Linalool | 32.42 |
| 28 | 23.852 | Hexyl propionate+Hotrienol | 0.11 |
| 29 | 24.017 | 1-Octen-3-yl acetate | 1.23 |
| 30 | 24.805 | 3-Octanol acetate | 0.12 |
| 31 | 25.410 | allo-Ocimene | 0.18 |
| 32 | 26.793 | Camphor | 0.20 |
| 33 | 27.925 | Lavandulol | 1.28 |
| 34 | 28.541 | Borneol | 0.78 |
| 35 | 28.697 | 3-trans-5-cis-1,3,5-Undecatriene | 0.05 |
| 36 | 29.166 | Terpinen-4-ol | 3.08 |
| 37 | 29.556 | Cryptone | 0.27 |
| 38 | 29.829 | Hexyl butanoate | 0.41 |
| 39 | 30.149 | alpha-Terpineol | 1.19 |
| 40 | 32.112 | Nerol | 0.17 |
| 41 | 32.858 | Hexyl 2-methyl butanoate | 0.03 |
| 42 | 33.376 | Cumin aldehyde | 0.08 |
| 43 | 34.024 | Linalyl acetate | 29.78 |
| 44 | 36.175 | Lavandulyl acetate | 4.93 |
| 45 | 36.734 | para-Cymen-7-ol | 0.03 |
| 46 | 41.091 | Neryl acetate | 0.40 |
| 47 | 42.384 | Geranyl acetate | 0.66 |
| 48 | 42.890 | Hexyl hexanoate | 0.11 |
| 49 | 43.011 | 7-epi-Sesquithujene | 0.08 |
| 50 | 44.668 | cis-alpha-Bergamotene | 0.03 |
| 51 | 45.137 | beta-Caryophyllene | 4.01 |
| 52 | 45.907 | trans-alpha-Bergamotene | 0.14 |
| 53 | 46.004 | Coumarin | 0.07 |
| 54 | 47.174 | trans-beta-Farnesene | 3.58 |
| 55 | 47.345 | alpha-Humulene | 0.08 |
| 56 | 48.946 | Germacrene D | 0.44 |
| 57 | 49.094 | trans-beta-Bergamotene | 0.05 |
| 58 | 50.893 | gamma-Cadinene | 0.14 |
| 59 | 55.008 | Caryophyllene oxide | 0.38 |
| 60 | 58.437 | epi-alpha-Cadinol | 0.09 |
| | | | 100.00 |

