Analysis Lemongrass Essential Oil

PhytoChemia





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Date: February 24, 2017

SAMPLE IDENTIFICATION

Internal code: 17B16-FSE5-1-DM

Customer identification: Lemongrass - Lot #MP16G466

Type: Essential oil

Source: Cymbopogon flexuosus

Customer: Flowers Shining Everywhere Inc.

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ANALYSIS

Method: PC-PA-001-15E06, "Analysis of the composition of a liquid essential oil by GC-FID" (in French).

Analyst: Sylvain Mercier, M. Sc., chimiste

Analysis date: 2017-02-21

Checked and approved by:

His F- Calm

Alexis St-Gelais, M. Sc., chimiste 2013-174

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IDENTIFIED COMPOUNDS

livinglibation/ Column: WAX Column: BP5 Identification **Molecular Class** R.T. % R.T. R.I. % R.I. cis-Hex-3-en-1-ol 2.57 864 0.01 0.01 1326 5.77 Aliphatic alcohol 4-Heptanone 2.71 875 0.01 0.01 1065 2.18 Aliphatic ketone Tricyclene 3.31 914 0.09 0.09 930 1.15 Monoterpene 3.50 926 954 a-Pinene 0.13 0.12 1.26 Monoterpene 3.78* 943 0.72 0.70 998 1.58 Monoterpene Camphene 3.78* a-Fenchene 943 0.02 977 Monoterpene [0.72] 1.40 Sabinene 4.21 0.01 1059 2.13 Monoterpene 968 0.01 Monoterpene **β-Pinene** 0.02 4.28 972 0.03 1040 1.95 4.55* Monoterpene Myrcene 988 0.53 0.49 1118 2.72 Dehydro-1,8-cineole 4.55* 988 Monoterp ether [0.53] 0.02 1133 2.93 5.04 6-Methyl-5-hepten-2-one 4.60 991 1.25 1279 Aliphatic ketone 1.24 α-Phellandrene 4.83 1004 0.04 0.03 1114 2.67 Monoterpene ivingOctanal On 4.94 1010 0.05 0.05 1234 4.35 Aliphatic aldehyde para-Gymene 5.24* 1026 0.26 0.01 3.99 Monoterpene 1210 5.24* 1026 [0.26]0.25 1142 3.06 Monoterpene 5.27 1028 0.02 0.02 1149 3.14* Monoterpene 5.32 103100 tro 3.14* Monoterp, ether [0.02]1149 0.19 3.67* 5.42 1036 0.19 1189 Monoterpene

Limonene β-Phellandrene 1,8-Cineole cis-β-Ocimene trans-B-Ocimene 1046 0.13 0.11 1203 3.89 Monoterpene 5.60 y-Terpinene 5.79 1056 0.01 [0.19]1189 3.67* Monoterpene 5.26 Aliphatic aldehyde Bergamal 5.81 1057 0.01 0.01 1295 cis-Linalool oxide (fur.) 6.07 1072 0.01 0.01 1379 Monoterp, alcohol Aliphatic ketone 4-Nonanone 6.14 1075 0.59 0.59 1273 4.94 6.27 Terpinolene 1082 0.04 0.03 1225 4.21 Monoterpene trans-Linalool oxide (fur.) 6.39 1089 0.01 0.01 1403 7.11 Monoterp, alcohol Rose furan 6.48 1093 0.06 0.12 1344 6.06* Monoterp, ether Perillene 6.30 Monoterp, ether 6.60 1098 0.04 0.04 1359 Linalool 6.71 1102 1.63 1.69 1496 9.45 Monoterp, alcohol cis-Chrysanthemal? 6.79 1105 0.06 Monoterp. aldehyde Nonanal 6.87 1108 0.03 [0.12]1344 6.06* Aliphatic aldehyde Oxygenated Unknown (m/z = 81, 70)7.60 1134 + 0.09 (71), 67 (57), 109 (47), 41 monoterpene * • * • (43), 82 (42)... 137 (8), 152 (0))7.87 1144 0.04 0.03 1419 7.51 Monoterp. aldehyde exo-Isocitral trans-Chrysanthemal 7.90 0.19 7.73* Monoterp, aldehyde 1145 0.16 1428 Citronellal 8.06 1151 0.64 0.63 1414 7.39 Monoterp. aldehyde (Z)-Isocitral 8.34 1162 0.41 0.30 1479 8.97 Monoterp, aldehyde

0.02

0.30

0.04

1164

1171

1180

0.02

0.29

0.03

1537

1617

1526

10.99

14.40

10.57

Monoterp, ether

Monoterp, alcohol

Monoterp. alcohol

Laboratoire



Terpinen-4-ol

Borneol

Rosefuran epoxide



8.41

8.60

8.84

+ + 6 * 0

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