

# Analysis Lemongrass Essential Oil

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**Phyto**Chemia



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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.



#### 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 :

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



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# IDENTIFIED COMPOUNDS

Identification	Column: BP5			Column: WAX			Molecular Class
	R.T.	R.I.	%	%	R.I.	R.T.	
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
α-Pinene	3.50	926	0.13	0.12	954	1.26	Monoterpene
Camphene	3.78*	943	0.72	0.70	998	1.58	Monoterpene
α-Fenchene	3.78*	943	[0.72]	0.02	977	1.40	Monoterpene
Sabinene	4.21	968	0.01	0.01	1059	2.13	Monoterpene
β-Pinene	4.28	972	0.03	0.02	1040	1.95	Monoterpene
Myrcene	4.55*	988	0.53	0.49	1118	2.72	Monoterpene
Dehydro-1,8-cineole	4.55*	988	[0.53]	0.02	1133	2.93	Monoterp. ether
6-Methyl-5-hepten-2-one	4.60	991	1.25	1.24	1279	5.04	Aliphatic ketone
α-Phellandrene	4.83	1004	0.04	0.03	1114	2.67	Monoterpene
Octanal	4.94	1010	0.05	0.05	1234	4.35	Aliphatic aldehyde
para-Cymene	5.24*	1026	0.26	0.01	1210	3.99	Monoterpene
Limonene	5.24*	1026	[0.26]	0.25	1142	3.06	Monoterpene
β-Phellandrene	5.27	1028	0.02	0.02	1149	3.14*	Monoterpene
1,8-Cineole	5.32	1031	tr	[0.02]	1149	3.14*	Monoterp. ether
cis-β-Ocimene	5.42	1036	0.19	0.19	1189	3.67*	Monoterpene
trans-β-Ocimene	5.60	1046	0.13	0.11	1203	3.89	Monoterpene
γ-Terpinene	5.79	1056	0.01	[0.19]	1189	3.67*	Monoterpene
Bergamal	5.81	1057	0.01	0.01	1295	5.26	Aliphatic aldehyde
cis-Linalool oxide (fur.)	6.07	1072	0.01	0.01	1379	6.63	Monoterp. alcohol
4-Nonanone	6.14	1075	0.59	0.59	1273	4.94	Aliphatic ketone
Terpinolene	6.27	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	6.60	1098	0.04	0.04	1359	6.30	Monoterp. ether
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
Unknown (m/z = 81, 70 (71), 67 (57), 109 (47), 41 (43), 82 (42)... 137 (8), 152 (0))	7.60	1134	0.09				Oxygenated monoterpene
exo-Isocitral	7.87	1144	0.04	0.03	1419	7.51	Monoterp. aldehyde
trans-Chrysanthemal	7.90	1145	0.16	0.19	1428	7.73*	Monoterp. aldehyde
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
Rosefuran epoxide	8.41	1164	0.02	0.02	1537	10.99	Monoterp. ether
Borneol	8.60	1171	0.30	0.29	1617	14.40	Monoterp. alcohol
Terpinen-4-ol	8.84	1180	0.04	0.03	1526	10.57	Monoterp. alcohol





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Flowers Shining Everywhere Inc.



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