Cumin Essential Oil

Laboratoire PhytoChemia









SAMPLE IDENTIFICATION

Internal code: 17F08-FSE27-1-DM

Customer Identification: Cumin CO2 - Lot #4118

Type: Essential oil

Source: Cuminum cyminum

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).

Identifications double-checked by GC-MS
 Analyst: Sylvain Mercier, M. Sc., chimiste

Analysis date: 2017-06-21

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Checked and approved by:

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

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IDENTIFIED COMPOUNDS

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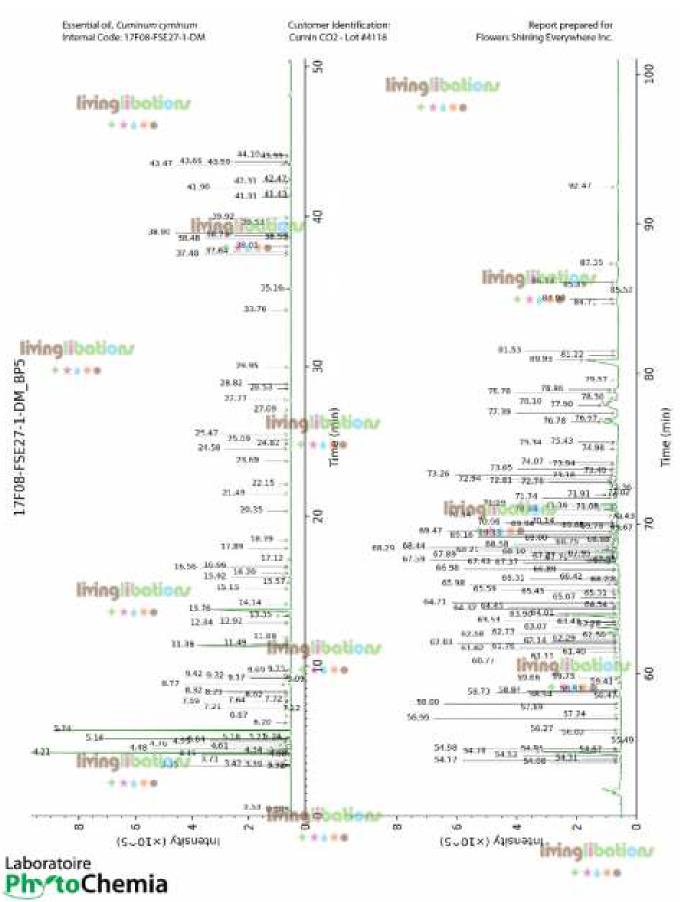
Identification o-Thujene	Column: 8P5 RT. RJ. %			Column: WAX			Molecular Class
	3.32	923	0.09	0.14	954	1.07	Monoterpene
a-Pinone	3.42	929	0.38	0.23	945	1.03	Monoterpene
Camphene	3.71	946	0.04	0.02	1001	1.28	Monoterpene
β-Pinene	4.21	976	6.33	5.12	1044	1.61	Monoterpene
Myrcene	4.48	992	0.30	0.29	1117	2.30*	Monoterpene
a-Phellandrene	4961	100B	0.14	0.08	1108	2.22	Monoterpene
Δ3-Carene	4/76*	4008	[0.14]	0.03	1090	2.05	Monoterpene
a-Terpinene	4.95	1018	0.03	[0.29]	1117	2.30*	Monoterpene
Carvomenthene	5.04	1023	0.02	0.02	1081	1.97	Monoterpene On
para-Cymene	5,14	1029	4.56	3.75	1207	3.46	Monoterpenes
Limonene	5.18	1031	0.22	0.14	1141	2.61	Monoterpene
β-Phellandrene	5.21	1032	0.12	0.18	1146	2.67*	Monoterpene
ng i e-Cineole	5.24	1034	0.06	[0.18]	1146	2.67*	Monoterp. ether
+ y-Terpinene	5.74	1062	6.27	5.03	1188	3.22	Monoterpene
Terpinolene	6.20	1067	0.02	0.04	1224	3.67	Monoterpene
Linalool	6.67	1108	0.02	0.03	1489	8.12*	Monoterp.alcohol
endo-Fenchol	7.12	11250	0.02	0.15	1531	9.10*	Monoterp. alcohol
cis-para-Menth-2-en-1-ol	7.21	1128	0.02	{0.03}	1489	8.12"	Monoterp, alcohol
trans-Pinocarveol	7.59	1142	0.02	0.04	1567	10.32	Monoterp, alcohol
Nopinone	7.64	1144	0.01				Normonoterp, ketone
Camphene hydrate	8.02	1158	0.02	[0.15]	1531	9.10*	Monoterp.alcohol
Terpinen-4-of	8.77	1185	0.14	[0.15]	1531	DOTON!	Monotorp alcohol
a-Terpineol	9.32	1203	0.06	0.19	1620	12.261	Monoterp. alcohol
Cuminal	11.39"	1249	9.58	7.68	1675	14.735	Monoterp, aldehyde
para-Cumenol	11.39*	1249	[9.58]				Monoterp. alcohol
Phellandral	12.84	1281	0.02	(0.19)	1620	12.26*	Monoterp. aldehyde
a-Terpinen-7-al	13.35	1293	0.66	0.68	1680	14.99	Monoterp, aldehyde
y-Terpinen-7 al	13.76	1301	9.46	7.74	1692	15.61	Monoterp. aldehyde
Carvacrol	15,15	1322	0.04	0.05	2127	39.26	Monoterp, alcohol
4-Hydroxycryptone	16.20	1338	90.03	100/			Monoterp, alcohol
para-Mentha-1,4-dien-7-ol	16,56	1344	+ 0.07++	0.05	1962	32.89	Monoterp algoriel
Daucene	17.89	1364	0.04	0.07	1439	6.94	Sesquiterpene
trans-a-Bergamotene	22.15	1423	0.05	(0.15)	1531	9.10*	Sesquiterpene
trans-β-Farnesene	24.50	1451	0.20	0.15	1609	11.85	Sesquiterpene
10-epi-β-Acoradiene	25.09	1458	0.13				Sesquiterpene
β-Bisabolene	28.53	1499	0.05	[7.68]	1675	14,731	Sesquiterpene
Caryophyllene oxide	33.76	1572	0.10	0.07	1853	25.32	Sesquiterp. ether
Carotol	35.16	1592	0.46	0.31	1914	29.60	Sesquiterp, alcohol
Daucol	37.48	1642	0.02	ionr			Sesquiterp, alcohol
Unknown (m/z = 83, 55 (90), 251 (82), 119 (41), 137	54.78	2297	8.07				that a william to
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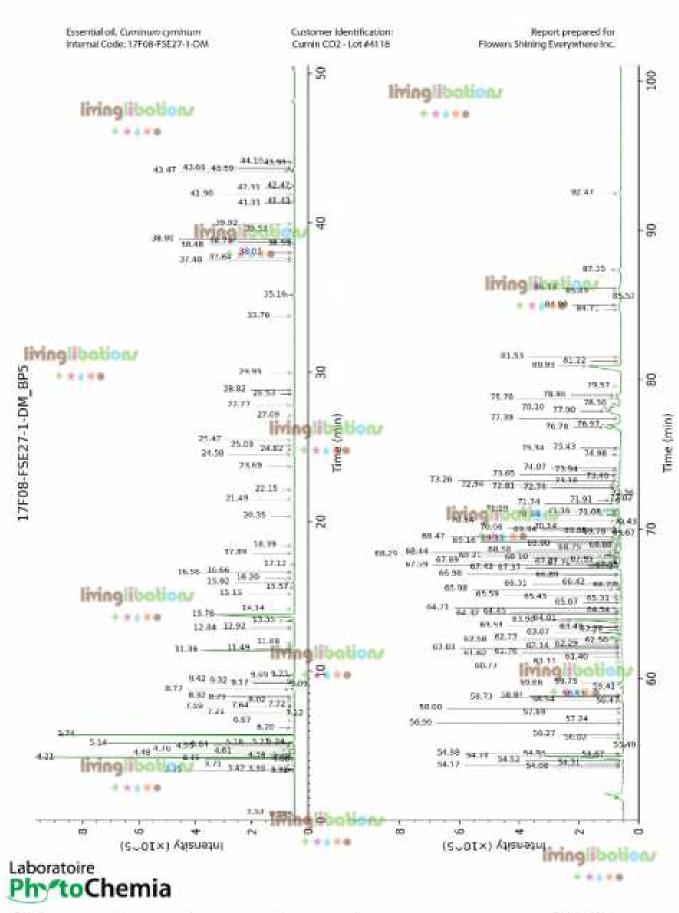






Plus que des analyses... des conseils

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