ANALYSIS Tarragon Esssential Oil

Laboratoire PhytoChemia









Date: July 14, 2017

SAMPLE IDENTIFICATION

Internal code: 17G04-F5E16-1-DM

Customer identification : Tarragon - France - HEL15G816

Type: Essential oil

Source: Artemisia dracunculus

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: Benoît Roger Ph. D.
 Analysis date: 2017-07-13

Checked and approved by:

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Alexis St-Gelais, M. Sc., chimiste 2013-17.

Imaglibation

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Customer Identification: Tarragon - France - HEL15G816 Report prepared for Flowers Shining Everywhere Inc.

Total Identified			98.84%	98.95%	į.		
(E)-p- Methoxychnamaldehyde	34.85	1587	0.05		mng:	100000	Phenylpropanoid
Spathulenol	33.94	1575	0.18	0.18	2024	35.63	Sesquiterp, alcohol

^{*:} Two or more compounds are coeluting on this column

(xx): Duplicate percentage due to coelutions, not taken account in the identified total

Note: no correction factor was applied:

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OTHER DATA

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Physical aspect : Clear liquid

Refractive index: 1.5078 ± 0.0003 (20 °C)

CONCLUSION

No adulterant, contaminant or diluent were detected using this method.

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Page 3 of 5

IDENTIFIED COMPOUNDS

Identification	Column: BP5			Column: WAX *			Molecular Class
	R.T.	R.I.	96	96	R.I.	R.T.	molecular Class
2-Ethyifuran	0.83	695	0.01	0.01	823	0.68	Furan
1,3-Octadiene	1.91	822	0.04				Alkene
(2E)-Hexenal	2.47	864	0.02	Service 1000			Aliphatic aldehyde
cis-Hex-3-en-1-ol	2.49	866	0.04	0.02	1337	5.32	Aliphatic alcohol
Hexanol	2.73	884	0.02	0.02	1294	4.69	Aliphatic alcohol
a-Thujene	11933	C 923	0.06	1,16	943	1.02*	Monoterpene
a-Pinene	3.43	930	1.11	[1.16]	943	1.02*	Monoterpene
Camphene	3.72	947	0.06	0.06	999	1.27	Monoterpene
Sabinene	4.16	973	4.45	4.42	1060	1.76	Monoterpene On
β-Pinene	4.22	976	0.16	0.14	1042	1.59	Monoterperion
Myrcene	4.49	993	0.73	0.68	1114	2.28	Monoterpene
a Phellandrene	4.77	1008	0.02	0.01	1107	2.21	Monoterpene
a-Terpinene	4.96	1019	0.15	0.16	1122	2.36	Monoterpene
para-Gymene	5.15	1029	0.15	6.53	1202	3.39*	Monoterpene
Limonene	5.20	1032	3.32	3.27	1141	2.60	Monoterpene
1,8-Cineole	5.25	1035	0.01	0.03	1151	2.74	Monoterp, ether
cls-β-Ocimene	5.39	104210	5.69	15:94	1186	3.18*	Monoterpene
trans-β-Ocimene	5.57	1053	6.43	[6.53]	1202	3.39*	Monoterpene
y-Terpinene	5.74	1062	0.31	[5.94]	1186	3.18*	Monoterpene
cis-Sabinene hydrate	6.06	1079	0.03	0.05	1421	6.61	Monoterp, alcohol
Terpinolene	6.21	1087	0.11	0.11	1222	3.64	Monoterpene
Linalool	6.69	1109	0.13	0.14	1487	806	Monoterp alcohol
allo-Ocimene	7.23	1129	0.11	0.10	1318	5.03	The state of the s
neo-allo-Ocimene	7.52	1139	0.01	0.02	1341	5.37	Monoterpene
para-Vinylanisole	8.09	1160	0.01	-			Phenylpropanoid
Menthol	8.81	1187	0.63	68.77	1587	11.06*	Monoterp, alcohol
Methylchavicol	9.82*	1214	68.12	[68.77]	1587	11.06*	Phenylpropanoid
g-Terpineo	9.82*	1214	[68.12]	0.27	1624	12.36*	Monoterp. alcohol
Citronellol	10.82	1237	0.05	0.06	1704	16.21	Monoterp, alcohol
Neral	11.19	12451	VEP 10	0.03	1597	11.43	Monoterp, aldehyde
Geraniol	11.86	1259	The state of the s	100000	1780	20.53	Monoterp, alcohol
Geranial	12.69	1278	0.05	0.06	1652	13,53	Monoterp, aldehydell
Bornyl acetate	12.95	1284	0.11	0.05	1500	8.38	Monoterp, ester
Citronellyl acetate	17.28	1355	0.21	0.21	1601	11.56	Monoterp, ester
Eugenol	17.86	1363	0.07	0.05	2054	36.90	Phenylpropanoid
Geranylacetate	19.41	1387	1.09	1.06	1690	15.49	Monoterp, ester
Methyl (E)-cinnamate	19.92	1395	0.09	0.09	1955	32.53	Phenylpropanoid ester
β-Caryophyllene	20.63	1404	0.12	0.70	1527	9.00	Sesquiterpene
Methyleugenol	21.79	1418	4.50	4.42	1932	30.89	Phenylpropanoid
Germacrene D	25.65	1465	0.20	[0.27]	1624	12.36*	Sesquiterpene
Bicyclogermacrene	26.89	1480	0.04	0.03	1646	13.24	Sesquiterpene

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