

GC/MS BATCH NUMBER: J10102

ESSENTIAL OIL: JASMINE ABSOLUTE
BOTANICAL NAME: JASMINUM SAMBAC
ORIGIN: INDIA

KEY CONSTITUENTS PRESENT IN THIS BATCH OF JASMINE ABSOLUTE OIL	%
(E,E)- α -FARNESENE	8.3
δ -CADINENE	7.3
BENZYL ALCOHOL	5.6
LINALOOL	5.5
BENZYL ACETATE	4.5
(Z)-HEXENYL BENZOATE	4.0
METHYL ANTHRANILATE	3.6
TRANS-11-TRICOSENE	2.8
GERMACRENE D-4-OL	2.2
2,3-OXIDOSQUALENE	1.9
ETHYL LINOLEATE	1.7
METHYL α -LINOLENATE	1.6
SQUALENE	1.5
PHENYLETHYL ALCOHOL	1.1

Comments from Robert Tisserand: A beautiful Jasmine sambac. The indole content is a little low for sambac, but this is a very nice absolute.

Date : September 19, 2016

SAMPLE IDENTIFICATION

Internal code : 16I06-PTH1-1-DM

Customer identification : Jasmine - J1010255R

Type : Absolute

Source : *Jasminum sambac*

Customer : Plant Therapy

ANALYSIS

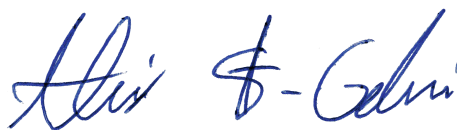
Method : PC-PA-001-15E06, "Analysis of the composition of a liquid essential oil by GC-FID" (in French).

Identifications double-checked by GC-MS

Analyst : Alexis St-Gelais, M. Sc., chimiste

Analysis date : 2016-09-13

Checked and approved by :



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

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This report is digitally signed, it is only considered valid if the digital signature is intact.

IDENTIFIED COMPOUNDS

Identification	Column: BP5			Column: WAX			Molecular Class
	R.T.	R.I.	%	%	R.I.	R.T.	
Ethanol	0.33	496	0.42	0.53	800	0.52	Aliphatic alcohol
Acetic acid	0.51	562	0.03	0.06	1407	5.86*	Aliphatic acid
<i>cis</i> -Hex-3-en-1-ol	2.48	863	0.32	0.42	1321	4.61	Aliphatic alcohol
<i>trans</i> -Hex-2-en-1-ol	2.67	878	0.07	0.10	1345	4.97	Aliphatic alcohol
Hexanol	2.71	882	0.04	0.05	1298	4.29	Aliphatic alcohol
<i>cis</i> -Hex-3-en-1-yl acetate	4.82	1012	0.87	1.13	1259	3.75	Aliphatic ester
Hexyl acetate	4.94	1019	0.01	0.01	1221	3.23	Aliphatic ester
<i>trans</i> -Hex-2-en-1-yl acetate	5.02	1023	0.02	0.02	1277	4.01	Aliphatic ester
<i>trans</i> - β -Ocimene	5.46	1047	0.05	0.03	1201	2.98	Monoterpene
Benzyl alcohol	5.85	1068	5.56	7.32	1776	18.28	Simple phenolic
<i>cis</i> -Linalool oxide (fur.)	5.95	1074	0.03	0.02	1377	5.42	Monoterp. alcohol
Benzyl formate	6.16	1085	0.02				Phenolic ester
<i>trans</i> -Linalool oxide (fur.)	6.28	1091	0.13	0.14	1405	5.83	Monoterp. alcohol
Methyl benzoate	6.54	1103	0.28	0.43	1529	8.19*	Phenolic ester
Linalool	6.72	1110	5.49	7.15	1495	7.47	Monoterp. alcohol
Phenylethyl alcohol	7.25	1129	1.05	1.08	1802	19.81*	Simple phenolic
Phenylacetone nitrile	7.94	1155	0.85	[1.08]	1802	19.81*	Simple phenolic
Benzyl acetate	8.41	1173	4.48	5.88	1639	11.62	Phenolic ester
Ethyl benzoate	8.52	1177	0.28	0.29	1594	10.11	Phenolic ester
<i>cis</i> -Linalool oxide (pyr.)	8.81	1188	0.05	0.08	1693	14.00	Monoterp. alcohol
<i>cis</i> -Hex-3-en-1-yl butyrate	8.84	1189	0.03	[0.06]	1407	5.86*	Aliphatic ester
Methyl salicylate	9.17	1199	0.10	0.12	1662	12.65	Phenolic ester
Unknown (m/z = 91, 117 (78), 118 (51), 119 (44)... 135 (12))	11.33	1248	0.40				
Phenylethyl acetate	11.81	1259	0.25	0.28	1720	15.19	Phenolic ester
1-Nitro-2-phenylethane	14.57	1312	0.07				Simple phenolic
Indole	15.36	1324	0.67	0.66	2314	42.67	Indole
(<i>E</i>)-Cinnamyl alcohol	15.69	1329	0.12	0.15	2173	39.21	Phenylpropanoid
Methyl anthranilate	17.18	1352	3.64	4.89	2105	37.09	Phenolic ester
β -Elemene	18.65	1375	0.06	[0.43]	1529	8.19*	Sesquiterpene
(<i>Z</i>)-8-Hydroxylinalool	19.50	1388	0.17	1.66	2296	42.27	Monoterp. alcohol
(<i>Z</i>)-Hex-3-en-1-yl (<i>Z</i>)-hex-3-en-1-oate	19.74	1391	0.01				Aliphatic ester
β -Caryophyllene	20.24	1398	0.03	[0.43]	1529	8.19*	Sesquiterpene
α -Humulene	23.02	1432	0.04	0.03	1587	9.90	Sesquiterpene
γ -Muuroolene	25.11	1457	0.04	0.03	1618	10.81	Sesquiterpene
Germacrene D	25.21	1458	0.27	0.27	1630	11.24	Sesquiterpene
Bicyclogermacrene	26.44	1472	0.10	0.10	1648	12.03	Sesquiterpene
α -Muuroolene	27.22	1482	0.08	0.07	1652	12.22	Sesquiterpene
γ -Cadinene	28.28	1494	0.23	0.21	1674	13.19	Sesquiterpene

(<i>E,E</i>)- α -Farnesene	29.02*	1505	7.96	9.39	1704	14.50*	Sesquiterpene
δ -Cadinene	29.02*	1505	[7.96]	0.67	1679	13.43	Sesquiterpene
α -Cadinene	30.43	1524	0.02	[9.39]	1704	14.50*	Sesquiterpene
Germacrene D-4-ol	33.81	1570	2.23	2.46	1961	30.14	Sesquiterp. alcohol
(<i>Z</i>)-Hex-3-en-1-yl benzoate	34.30*	1577	3.24	4.04	2022	33.64	Phenolic ester
(<i>E</i>)-Nerolidol	34.30*	1577	[3.24]	0.24	2000	32.41	Sesquiterp. alcohol
(<i>E</i>)-Hex-2-en-1-yl benzoate	35.29	1590	0.18	0.23	2041	34.78	Phenolic ester
Methyl N-acetylanthranilate	35.67*	1597	0.06	0.02	2394	44.40	Phenolic ester
Hexyl benzoate	35.67*	1597	[0.06]	0.09	2006	32.73	Phenolic ester
τ -Cadinol	37.35	1637	0.06	0.07	2081	36.24	Sesquiterp. alcohol
τ -Muurolol	37.47	1640	0.05	0.06	2097	36.78	Sesquiterp. alcohol
α -Muurolol	37.57	1643	0.04	0.02	2117	37.45	Sesquiterp. alcohol
α -Cadinol	37.93	1651	0.15	0.12	2136	38.10	Sesquiterp. alcohol
Oplopanone	40.91	1731	0.09	3.35	2363	43.76*	Sesquiterp. alcohol
Unknown benzoate ester I	41.73	1757	0.22				Phenolic ester
Benzyl benzoate	42.15	1770	0.35	0.38	2492	46.36	Phenolic ester
(<i>2E,6E</i>)-Farnesyl acetate	43.96	1833	0.07	0.09	2207	40.09	Sesquiterp. ester
Phenylethyl benzoate	44.65	1858	0.13	0.13	2582	48.04	Phenolic ester
Methyl palmitate	46.57	1930	0.27	0.28	2191	39.65	
Ethyl palmitate	48.41	2005	0.90	0.32	2250	41.22	Fatty acid ester
(<i>E,E</i>)-Geranylinalool	48.83	2023	0.81	0.95	2509	46.67	Diterp. alcohol
<i>trans</i> -10-Heneicosene	49.97	2072	0.09	0.11	2145	38.43	Alkene
(<i>E</i>)-Cinnamyl benzoate	50.47	2093	0.40				Phenylpropanoid ester
Methyl α -linolenate	50.65	2101	1.62	1.76	2517	46.83*	Fatty acid ester
Methyl linoleate	51.05	2120	0.34				Fatty acid ester
Methyl stearate	51.31	2131	0.15				Fatty acid ester
Ethyl α -linolenate	52.12	2168	0.62				Fatty acid ester
Ethyl linoleate	52.33	2178	1.74	[1.76]	2517	46.83*	Fatty acid ester
<i>trans</i> -11-Tricosene	54.31	2272	2.78	[3.35]	2363	43.76*	Alkene
Unknown (m/z = 253, 193 (88), 220 (63), 192 (47), 221 (44))	56.01	2355	0.51				Nitrogen-containing compound
<i>trans</i> -13-Pentacosene	58.10	2463	0.22	0.13	2559	47.63	Alkene
Unknown (m/z = 218, 219 (96), 217 (51), 220 (15), 216 (14), 108 (13), 189 (13))	59.05	2512	1.46				Nitrogen-containing compound
Diethyl phthalate	59.47	2535	0.37	0.39	3120	56.95	Synthetic
Phenylmethyl palmitate	60.36	2583	0.31				Phenolic ester
Phenylmethyl oleate	63.45	2758	0.41				Phenolic ester
Phenylmethyl α -linolenate	63.66*	2770	3.19				Phenolic ester
Phenylmethyl linoleate	63.66*	2770	[3.19]				Phenolic ester
Squalene	64.20	2802	1.47	1.75	3099	56.63	Triterpene
2,3-Oxidosqualene	66.21	2923	1.93	1.49	3386	60.78	Triterpenic ether

Unknown (m/z = 322, 245 (61), 204 (35), 321 (33), 323 (24), 243 (22), 205 (21))	74.34	3414	3.59			Nitrogen-containing compound
Unknown (m/z = 245, 246 (18), 243 (17), 217 (13))	77.02	3519	7.73			Nitrogen-containing compound
Total identified		58.43%	61.75%			

*: 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

OTHER DATA

Physical aspect : Brown liquid

Refractive index : 1.5020 ± 0.0003 (20 °C)

CONCLUSION

This sample is contaminated with some dioctyl phthalate, likely resulting from the solvents used to produce the absolute.

