

GC/MS BATCH NUMBER: J10104

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

KEY CONSTITUENTS PRESENT IN THIS BATCH OF JASMINE OIL	%
(E,E)- α -FARNESENE	9.4
BENZYL ACETATE	6.3
BENZYL ALCOHOL	5.7
METHYL ANTHRANILATE	5.6
LINALOOL	4.8
INDOLE	4.4
cis-9-TRICOSENE	3.9
(Z)-HEX-3-EN-1-YL BENZOATE	3.1
GERMACRENE D-4-OL	3.1
2,3-OXIDOSQUALENE	2.9
SQUALENE	2.4
α -TOCOPHEROL	1.9
PHENYLMETHYL LINOLEATE	1.7
PHENYLETHYL ALCOHOL	1.6
α -LINOLENIC ACID	1.4
METHYL α -LINOLENATE	1.4
(E,E)-GERANYLLINALOOL	1.3
PHENYLACETONITRILE	1.2

Comments from Robert Tisserand:
Rich, heady, tropical flower odor quality. Constituents are in expected amounts.

Date : August 31, 2017

SAMPLE IDENTIFICATION

Internal code : 17H24-PTH3-1-DM

Customer identification : Jasmine - India - J1010467R

Type : Essential oil

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 : 2017-08-28

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.	
Ethanol	0.35	631	0.34	0.37	802	0.72	Aliphatic alcohol
<i>cis</i> -Hex-3-en-1-ol	2.47	863	0.28	0.29	1324	5.64	Aliphatic alcohol
<i>trans</i> -Hex-2-en-1-ol	2.65	876	0.11	0.12	1348	6.01	Aliphatic alcohol
Hexanol	2.71	881	0.05	0.04	1300	5.25	Aliphatic alcohol
<i>cis</i> -Hex-3-en-1-yl acetate	4.87	1011	0.89	0.97	1264	4.71	Aliphatic ester
<i>trans</i> -Hex-2-en-1-yl acetate	5.07	1022	0.02	0.02	1282	4.98	Aliphatic ester
<i>trans</i> - β -Ocimene	5.53	1047	0.08	0.08	1205	3.83	Monoterpene
Benzyl alcohol	5.75	1059	5.70	6.38	1777	23.64*	Simple phenolic
<i>cis</i> -Linalool oxide (fur.)	6.01	1073	0.03	0.03	1377	6.48	Monoterp. alcohol
<i>trans</i> -Linalool oxide (fur.)	6.33	1090	0.26	0.33	1403	6.99*	Monoterp. alcohol
Methyl benzoate	6.60	1103	0.24	0.26	1529	10.45	Phenolic ester
Linalool	6.74	1108	4.80	5.23	1497	9.26	Monoterp. alcohol
Phenylethyl alcohol	7.22	1125	1.57	3.11	1807	25.66*	Simple phenolic
Phenylacetonitrile	7.96	1152	1.20	[3.11]	1807	25.66*	Simple phenolic
Benzyl acetate	8.49	1171	6.25	7.16	1639	15.21*	Phenolic ester
Ethyl benzoate	8.60	1175	0.51	0.55	1598	13.06	Phenolic ester
<i>cis</i> -Hex-3-en-1-yl butyrate	8.83	1184	0.15	[0.33]	1403	6.99*	Aliphatic ester
Methyl salicylate	9.28	1199	0.12	0.14	1662	16.41	Phenolic ester
Phenylethyl acetate	11.93	1257	0.37	0.40	1719	19.75	Phenolic ester
Geraniol	12.42	1268	0.66	[6.38]	1777	23.64*	Monoterp. alcohol
Chavicol	13.61	1294	0.55	0.51	2202	43.02	Phenylpropanoid
Indole	14.83	1314	4.42	5.01	2296	45.20	Indole
Methyl anthranilate	17.22	1350	5.63	6.60	2103	40.42	Phenolic ester
Eugenol	17.84	1359	0.09	0.11	2067	39.28	Phenylpropanoid
β -Elemene	19.75	1388	0.06	0.08	1522	10.15	Sesquiterpene
Methyl (<i>E</i>)-cinnamate	20.25	1396	0.05	3.49	1951	34.95*	Phenylpropanoid ester
(<i>Z</i>)-Jasmone	20.57	1400	0.04	0.07	1821	26.72	Jasmonate
α -Humulene	23.37	1433	0.04	0.05	1582	12.42	Sesquiterpene
Germacrene D	25.59	1460	0.27	0.32	1619	14.14	Sesquiterpene
Bicyclgermacrene	26.83	1474	0.11	[7.16]	1639	15.21*	Sesquiterpene
(<i>Z,E</i>)- α -Farnesene	28.01	1489	0.10	0.58	1673	17.03*	Sesquiterpene
γ -Cadinene	28.68	1497	0.23	0.28	1667	16.69	Sesquiterpene
(<i>E,E</i>)- α -Farnesene	29.34	1506	9.36	10.05	1698	18.30	Sesquiterpene
δ -Cadinene	29.42	1507	0.21	[0.58]	1673	17.03*	Sesquiterpene
Germacrene D-4-ol	34.04*	1572	3.31	[3.49]	1951	34.95*	Sesquiterp. alcohol
(<i>E</i>)-Nerolidol	34.04*	1572	[3.31]	0.25	1982	36.33	Sesquiterp. alcohol
(<i>Z</i>)-Hex-3-en-1-yl benzoate	34.47	1578	3.09	3.38	2009	37.46	Phenolic ester
Hexyl benzoate	35.46	1592	0.20	0.16	1987	36.57	Phenolic ester
(<i>E</i>)-Hex-2-en-1-yl benzoate	35.83	1597	0.09	0.21	2036	38.31	Phenolic ester
τ -Cadinol	37.64	1640	0.10	0.10	2081	39.75	Sesquiterp. alcohol
τ -Muurolol	37.77	1643	0.07	0.04	2098	40.27	Sesquiterp. alcohol

α -Cadinol	38.08	1651	0.29	0.27	2120	40.88	Sesquiterp. alcohol
(2 <i>E</i> ,6 <i>E</i>)-Farnesol	40.68	1720	0.14	0.18	2280	44.84	Sesquiterp. alcohol
Oplopanone	41.03	1731	0.12	0.13	2352	46.41	Sesquiterp. alcohol
Benzyl ester (m/z = 105, 77 (43), 162 (20)... 191 (5)... 256?)	41.86	1757	0.33				Phenolic ester
Benzyl benzoate	42.28	1770	0.34	1.94	2475	48.97*	Phenolic ester
Phenylethyl benzoate	44.78	1857	0.17	0.30	2560	50.63	Phenolic ester
Methyl palmitate	46.70	1930	0.25	0.30	2173	42.25	Fatty acid ester
Palmitic acid	48.30	1994	0.97	1.56	2845	55.80	Fatty acid
(<i>E,E</i>)-Geranylinalool	48.94	2021	1.33	[1.94]	2475	48.97*	Diterp. alcohol
Methyl linoleate	50.60	2092	0.34	0.29	2422	47.88	Fatty acid ester
Methyl α -linolenate	50.77	2099	1.36	1.46	2484	49.14	Fatty acid ester
Methyl stearate	51.45	2130	0.20	0.21	2380	47.01	Aliphatic ester
Ethyl α -linolenate	52.04	2157	0.22				Aliphatic ester
α -Linolenic acid	52.22	2166	1.39	1.70	3193	61.49	Fatty acid
Ethyl linoleate	52.28	2168	0.24	0.12	2507	49.61	Fatty acid ester
<i>cis</i> -9-Tricosene	54.48	2271	3.85	5.18	2310	45.54	Alkene
Behenic alcohol?	59.02	2499	0.69				Aliphatic alcohol
Phenylmethyl palmitate	60.50	2579	0.20				Phenolic ester
Phenylmethyl α -linolenate	63.59	2752	0.20				Phenolic ester
Phenylmethyl linoleate	63.76	2762	1.68				Phenolic ester
Squalene	64.36	2796	2.37	2.73	3025	58.83	Triterpene
2,3-Oxidosqualene	66.37	2918	2.87	3.58	3297	63.09	Triterp. ether
α -Tocopherol	69.54	3118	1.89				Tocopherol
Unknown (m/z = 322, 245 (61), 204 (35), 321 (33), 323 (24), 243 (22), 205 (21))	74.28	3394	2.89				Unkown nitrogen-containing
Unknown (m/z = 245, 246 (18), 243 (17), 217 (13))	77.00	3501	7.30				Unkown nitrogen-containing
Total identified			72.76%	76.72%			

*: 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

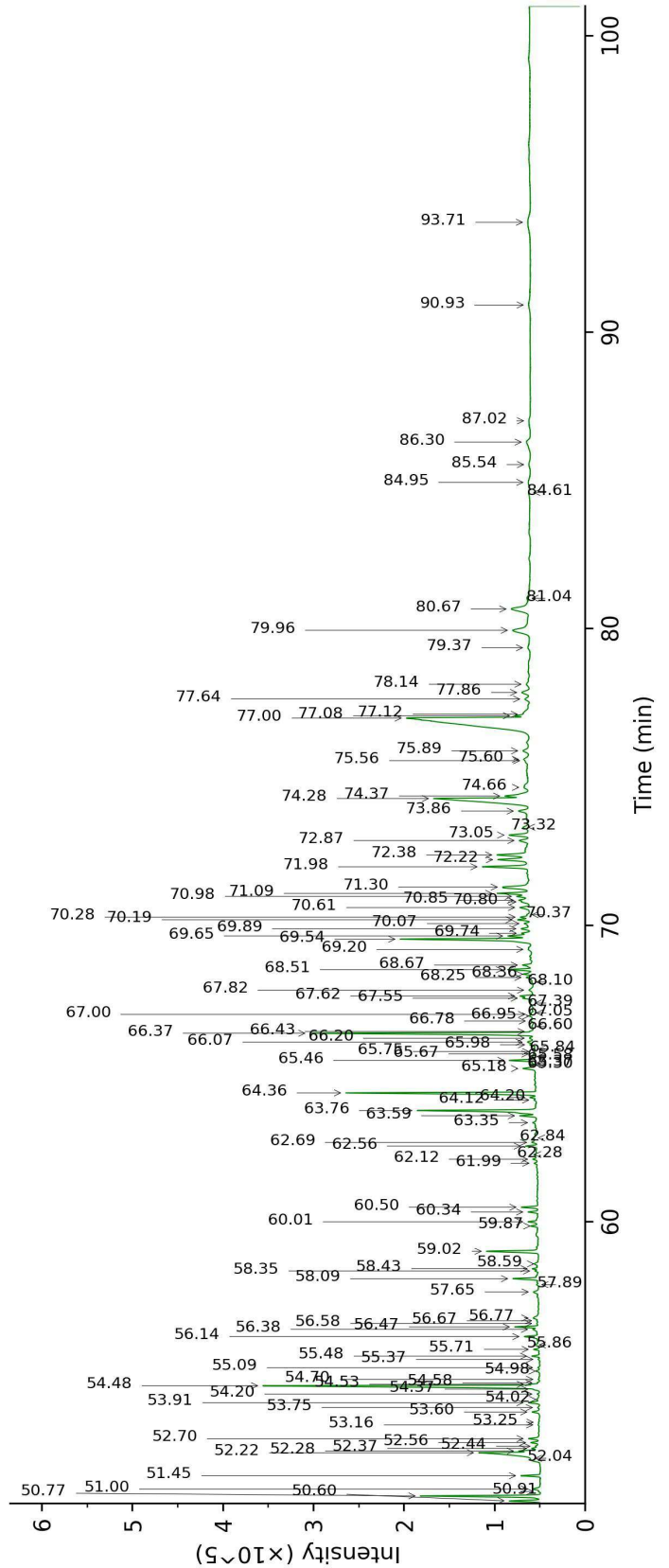
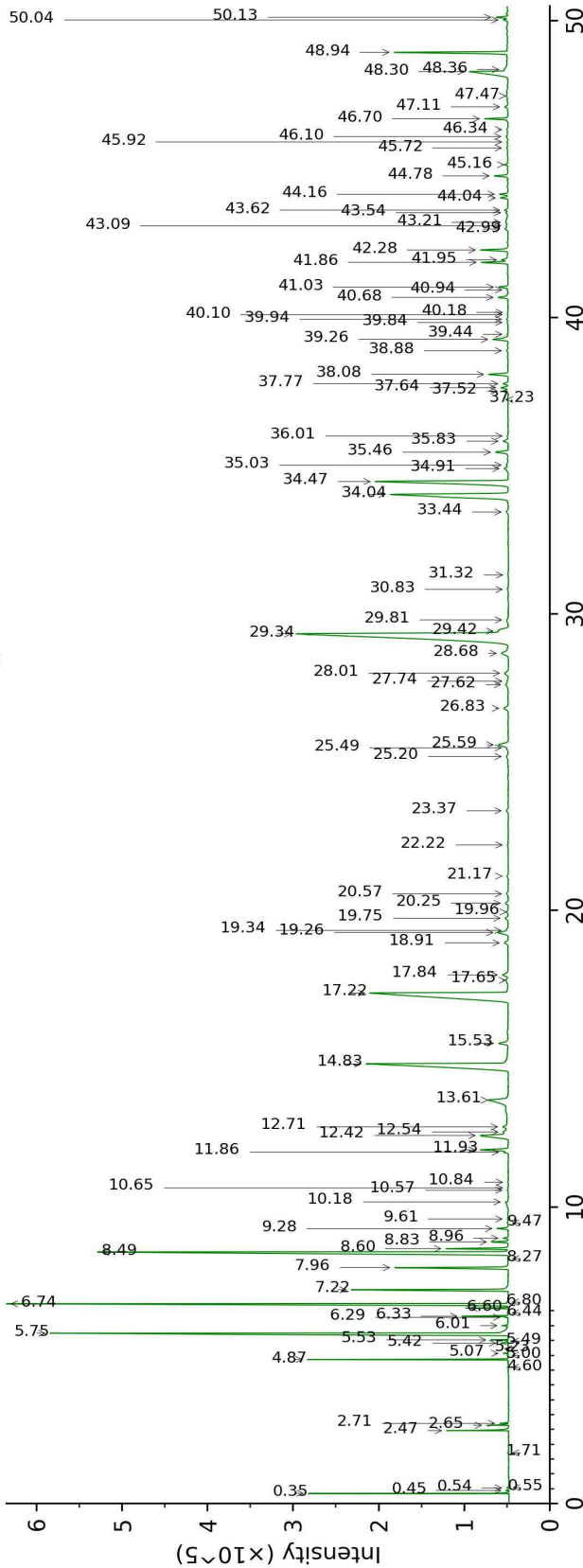
Physical aspect : Bright orange liquid

Refractive index : 1.5080 \pm 0.0003 (20 °C)

CONCLUSION

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

17H24-PTH3-1-DM_BP5



17H24-PTH3-1-DM_WAX

