PLANT THERAPY
100% PURE ESSENTIAL OILS

GC/MS BATCH NUMBER: J10103

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

KEY CONSTITUENTS PRESENT IN THIS BATCH OF JASMINE ABSOLUTE OIL	%
(E,E)-a-FARNESENE	9.2
BENZYL ALCOHOL	6.6
LINALOOL	5.2
BENZYL ACETATE	4.8
METHYL ANTHRANILATE	4.4
(Z)-HEX-3-EN-1-yl BENZOATE	3.8
cis-9-TRICOSENE	3.3
SQUALENE	2.9
GERMACRENE D-4-OL	2.7
METHYL a-LINOLENATE	2.1
2,3-OXIDOSQUALENE	2.0
BEHENIC ALCOHOL	1.6
a-LINOLENIC ACID	1.5
INDOLE	1.2

Comments from Robert Tisserand: Excellent fruity "green jasmine" odor profile and the constituents are within normal ranges.

Date : April 12, 2017

SAMPLE IDENTIFICATION

Internal code : 17D12-PTH1-1-DM
Customer identification : Jasmine Abs - India - J1010373R
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).
Analyst : Sylvain Mercier, M. Sc., chimiste
Analysis date : 2017-04-12

Checked and approved by :

Sylvain Mercier, M. Sc., chimiste 2014-005

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IDENTIFIED COMPOUNDS

Identification	Column: BP5			Column: WAX			Molecular Class
	R.T.	R.I.	%	%	R.I.	R.T.	
Ethanol	0.35	632	0.17	0.18	796	0.69	Aliphatic alcohol
cis-Hex-3-en-1-ol	2.42	861	0.29	0.31	1318	5.43	Aliphatic alcohol
Hexanol	2.67	880	0.05	0.05	1295	5.06	Aliphatic alcohol
cis-Hex-3-en-1-yl acetate	4.84	1013	0.76	0.85	1256	4.49	Aliphatic ester
trans-Hex-2-en-1-yl acetate	5.06	1024	0.01	0.01	1274	4.76	Aliphatic ester
trans-β-Ocimene	5.50	1049	0.02	0.02	1196	3.62	Monoterpene
Benzyl alcohol	5.62	1055	6.57	7.69	1772	22.40*	Simple phenolic
cis-Linalool oxide (fur.)	5.98	1075	0.01	0.02	1370	6.25	Monoterp. alcohol
trans-Linalool oxide (fur.)	6.28	1091	0.12	0.17	1400	6.72	Monoterp. alcohol
Methyl benzoate	6.53	1103	0.34	0.38	1525	9.90*	Phenolic ester
Linalool	6.67	1108	5.22	6.09	1490	8.84	Monoterp. alcohol
Phenylethyl alcohol	7.04	1122	0.83	1.06	1802	24.35	Simple phenolic
Phenylacetonitrile	7.80	1150	0.81	0.86	1800	24.22	Simple phenolic
Benzyl acetate	8.38	1171	4.81	5.76	1634	14.31	Phenolic ester
Ethyl benzoate	8.51	1176	0.28	0.29	1591	12.34	Phenolic ester
Geraniol	11.77	1258	0.17	[7.69]	1772	22.40*	Monoterp. alcohol
Phenylethyl acetate	11.89	1260	0.20	0.20	1716	18.62	Phenolic ester
Indole	14.08	1306	1.21	0.97	2312	45.08	Indole
1-Nitro-2-phenylethane	14.32	1310	0.13				Simple phenolic
Methyl anthranilate	16.74	1346	4.37	5.46	2099	39.70*	Phenolic ester
Eugenol	17.17	1353	0.08	0.09	2064	38.61	Phenylpropanoid
β-Elemene	18.60	1375	0.23	[0.38]	1525	9.90*	Sesquiterpene
Methyl (*E*)-cinnamate	19.56	1389	0.07	0.08	1967	34.83	Phenylpropanoid ester
β-Caryophyllene	20.39	1402	0.04	0.04	1514	9.48	Sesquiterpene
Dimethyl anthranilate	20.74	1406	0.02	0.02	1928	33.12	Phenolic ester
α-Humulene	23.13	1434	0.05	0.06	1573	11.68	Sesquiterpene
Germacrene D	25.33	1461	0.32	0.35	1614	13.30	Sesquiterpene
Bicyclogermacrene	26.56	1476	0.13	0.11	1638	14.50	Sesquiterpene
α-Muurolene	27.34	1485	0.09	0.07	1658	15.58	Sesquiterpene
(*Z*,*E*)-α-Farnesene	27.78	1490	0.06	0.07	1662	15.82	Sesquiterpene
γ-Cadinene	28.38	1497	0.24	0.29	1659	15.67	Sesquiterpene
(*E*,*E*)-α-Farnesene	29.11*	1507	8.08	9.22	1690	17.26	Sesquiterpene
δ-Cadinene	29.11*	1507	[8.08]	0.63	1666	15.98	Sesquiterpene
Germacrene D-4-ol	33.66*	1571	2.42	2.68	1949	34.07	Sesquiterp. alcohol
(*E*)-Nerolidol	33.66*	1571	[2.42]	0.16	1982	35.53	Sesquiterp. alcohol
(*Z*)-Hex-3-en-1-yl benzoate	34.23	1579	3.76	4.45	2008	36.70	Phenolic ester
Hexyl benzoate	34.65	1585	0.07	0.07	1992	35.98	Phenolic ester
(*E*)-Hex-2-en-1-yl benzoate	35.20	1592	0.16	0.20	2030	37.55	Phenolic ester
Methyl N-acetylanthranilate	35.45	1596	0.05	0.04	2399	46.95	Phenolic ester
τ-Cadinol	37.22	1636	0.07	0.09	2081	39.11	Sesquiterp. alcohol

τ-Muurolol	37.34	1638	0.06	[5.46]	2099	39.70*	Sesquiterp. alcohol
α-Cadinol	37.63	1646	0.06	0.05	2142	40.94	Sesquiterp. alcohol
Methyl (*Z*)-jasmonate	37.77	1649	0.18	0.27	2233	43.25	Jasmonate
(2*E*,6*E*)-Farnesol	40.47	1719	0.09	0.09	2277	44.27	Sesquiterp. alcohol
Benzyl ester (m/z = 105, 77 (43), 162 (20)... 191 (5)... 256?)	41.63	1756	0.28				Phenolic ester
Benzyl benzoate	42.03	1769	0.40	1.63	2471	48.43*	Phenolic ester
Phenylethyl benzoate	44.54	1855	0.13	0.20	2554	50.07	Phenolic ester
Methyl palmitate	46.60	1934	0.25	0.24	2184	42.04	Fatty acid ester
Palmitic acid	47.95	1988	0.65	1.09	2836	55.18	Fatty acid
(*E*,*E*)-Geranyllinalool	48.79	2023	0.89	[1.63]	2471	48.43*	Diterp. alcohol
Methyl linoleate	50.49	2097	0.22	0.27	2418	47.33	Fatty acid ester
Methyl α-linolenate	50.66	2104	2.11	2.08	2480	48.62	Fatty acid ester
Methyl stearate	51.34	2135	0.17	0.21	2378	46.50	Aliphatic ester
α-Linolenic acid	51.93	2162	1.50	1.76	3182	60.86	Fatty acid
cis-9-Tricosene	54.40	2278	3.30	4.91	2311	45.04	Alkene
Behenic alcohol	58.60	2491	1.56				Aliphatic alcohol
Phenylmethyl palmitate	60.34	2585	0.31				Phenolic ester
Squalene	63.61	2771	2.87	2.17	3021	58.29	Triterpene
2,3-Oxidosqualene	66.24	2928	2.02	2.38	3295	62.59	Triterp. ether
Unknown oxygenated squalane (m/z = 69, 81 (66), 93 (48), 41 (39), 107 (37)...)	66.81	2963	0.12	0.12	3600	67.04	Triterp. ether
α-Tocopherol	69.31	3123	1.65				Tocopherol
Unknown (m/z = 322, 245 (61), 204 (35), 321 (33), 323 (24), 243 (22), 205 (21))	73.79	3393	6.54				Nitrogen-containing compound
Unknown (m/z = 245, 246 (18), 243 (17), 217 (13))	76.20	3495	7.05				Nitrogen-containing compound
Total identified			**60.73%**	**66.44%**			

*: Two or more compounds are coeluting on this column

[xx]: Duplicate percentage due to coelutions, not taken account in the identified total

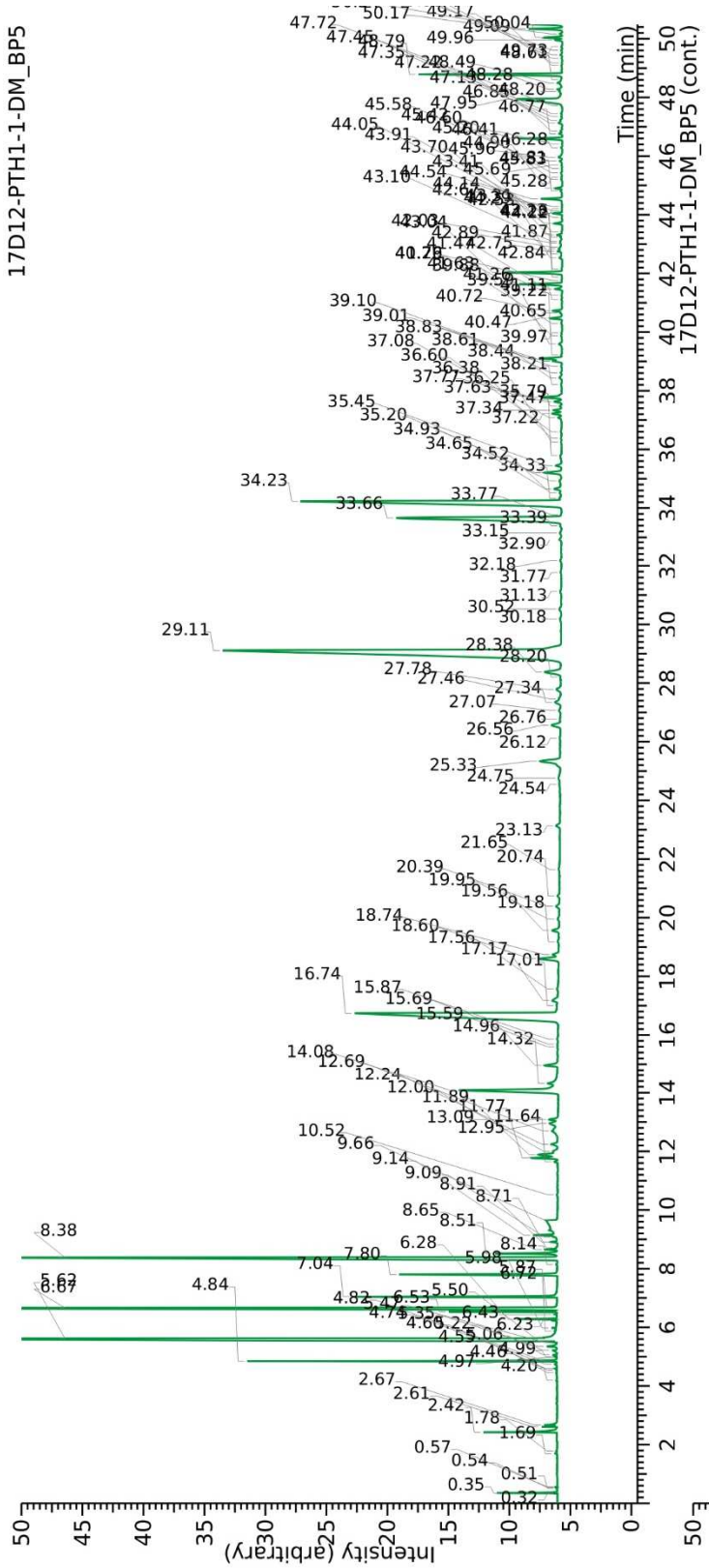
Note: no correction factor was applied

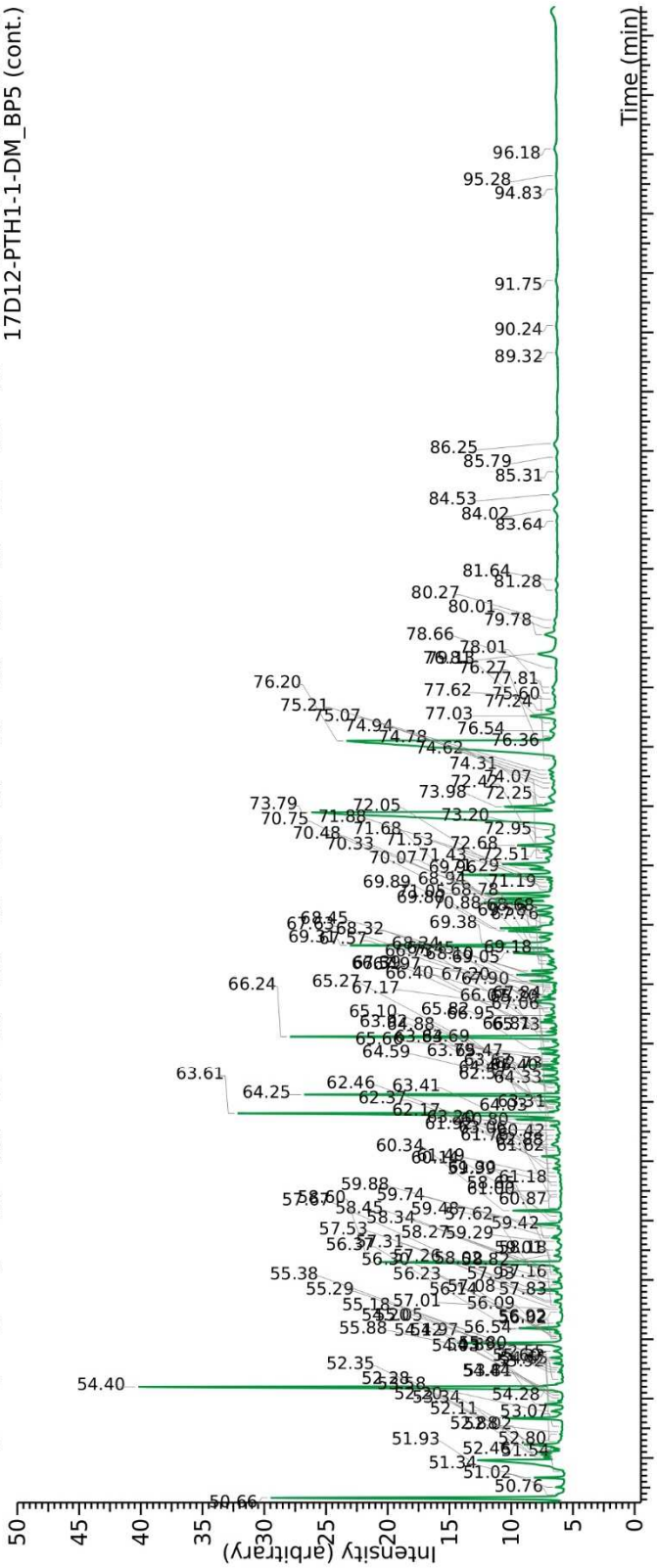
Other Data

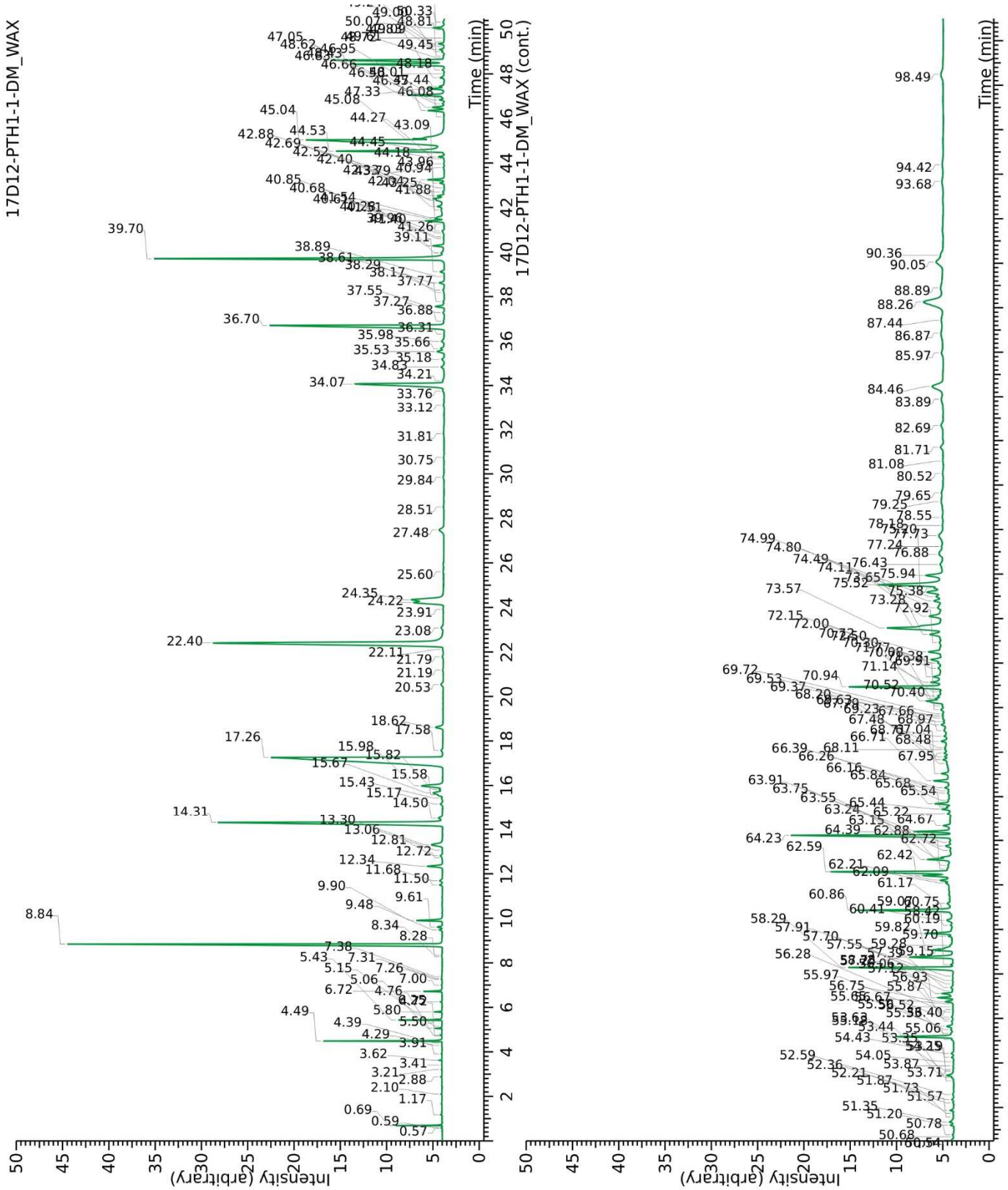
Physical aspect : Brown-orange liquid
Refractive index : 1.5078 ± 0.0003 (20 °C)

Conclusion

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


17D12-PTH1-1-DM_BP5
Intensity (arbitrary)
Time (min)


17D12-PTH1-1-DM_BP5 (cont.)
Intensity (arbitrary)
Time (min)


17D12-PTH1-1-DM_WAX
17D12-PTH1-1-DM_WAX (cont.)
Time (min)
Intensity (arbitrary)