



PLANT THERAPY
100% PURE ESSENTIAL OILS

GC/MS BATCH NUMBER: P10103

ESSENTIAL OIL: PALMAROSA
BOTANICAL NAME: CYMBOPOGON MARTINII
ORIGIN: INDIA

KEY CONSTITUENTS PRESENT IN THIS BATCH OF PALMAROSA OIL	%
Geraniol	80.11
Geranyl acetate	8.49
Linalool	3.26
β -Caryophyllene	1.70
trans- β -Ocimene	1.49

Comments from Robert Tisserand: Radiant, rose-citrus-hay odor quality. All twelve key ISO constituents are within range.

Date : May 5, 2017

SAMPLE IDENTIFICATION

Internal code : 17D28-PTH3-1-DM

Customer identification : Palmarosa - India - P1010373R

Type : Essential oil

Source : *Cymbopogon martinii*

Customer : Plant Therapy

ANALYSIS

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

Analyst : Benoit Roger Ph. D.

Analysis date : 2017-05-02

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.	
Isoamyl alcohol	1.14	736	0.04	0.03	1152	2.92	Aliphatic alcohol
cis-Hex-3-en-1-ol	2.49	866	0.01	0.01	1325	5.37	Aliphatic alcohol
Myrcene	4.46*	991	0.20	0.17	1117	2.46	Monoterpene
trans-Dehydroxylinalool oxide	4.46*	991	[0.20]	0.03	1154	2.95	Monoterp. ether
6-Methyl-5-hepten-2-one	4.53	995	0.05	0.05	1278	4.66	Aliphatic ketone
6-Methyl-5-hepten-2-ol	4.76	1008	0.02	0.01	1413	6.75	Aliphatic alcohol
cis-Dehydroxylinalool oxide	4.85	1013	0.02				Monoterp. ether
Limonene	5.15	1029	0.10	0.09	1141	2.78	Monoterpene
cis-β-Ocimene	5.33	1039	0.42	0.43	1187	3.37*	Monoterpene
trans-β-Ocimene	5.52	1049	1.49	1.45	1203	3.58	Monoterpene
γ-Terpinene	5.69	1059	0.01	[0.43]	1187	3.37*	Monoterpene
cis-Linalool oxide (fur.)	5.97	1074	0.02	0.02	1377	6.18	Monoterp. alcohol
Terpinolene	6.17	1085	0.01	0.01	1224	3.88	Monoterpene
trans-Linalool oxide (fur.)	6.29	1091	0.01	0.01	1407	6.64	Monoterp. alcohol
Linalool	6.64	1107	3.26	3.27	1495	8.69	Monoterp. alcohol
γ-Terpineol	9.31	1203	0.04	0.03	1632	13.53	Monoterp. alcohol
Nerol	10.42	1228	0.15	0.14	1733	18.92	Monoterp. alcohol
Neral	11.04	1241	0.14	0.12	1600	12.23	Monoterp. aldehyde
Geraniol	12.33	1270	80.11	80.25	1796	23.06	Monoterp. alcohol
Geranial	12.67	1277	0.31	0.29	1650	14.53*	Monoterp. aldehyde
Geranyl formate	13.92	1304	0.07	0.06	1638	13.87	Monoterp. ester
β-Elemene	18.80	1378	0.06	0.06	1525	9.47	Sesquiterpene
Geranyl acetate	19.42	1387	8.49	8.56	1696	16.89	Monoterp. ester
β-Caryophyllene	20.50	1403	1.70	1.71	1522	9.38	Sesquiterpene
α-Humulene	23.22	1436	0.09	0.10	1580	11.51	Sesquiterpene
Germacrene D	25.67	1465	0.06	0.04	1627	13.29	Sesquiterpene
α-Murolene	27.57	1488	0.03	[0.29]	1650	14.53*	Sesquiterpene
γ-Cadinene	28.47	1499	0.03	0.04	1664	15.20	Sesquiterpene
Geranyl butyrate	33.61*	1570	0.49	0.20	1833	25.53	Monoterp. ester
(E)-Nerolidol	33.61*	1570	[0.49]	0.11	1991	35.29	Sesquiterp. alcohol
Caryophyllene oxide	33.61*	1570	[0.49]	0.12	1851	26.79	Sesquiterp. ether
(2E,6E)-Farnesol	40.52	1721	0.73	0.84	2287	44.14	Sesquiterp. alcohol
Geranyl caproate	41.65	1757	0.83	0.86	2028	36.97	Monoterp. ester
(2E,6E)-Farnesyl acetate	44.07	1838	0.10	0.08	2195	41.90	Sesquiterp. ester
Geranyl caprylate	47.02	1950	0.19	0.20	2229	42.77	Monoterp. ester
Total identified			99.28%	99.39%			

*: 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 : Faintly yellow liquid

Refractive index : 1.4715 ± 0.0003 (20 °C)

CONCLUSION

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



