

GC/MS BATCH NUMBER: P20104

ESSENTIAL OIL: PATCHOULI
BOTANICAL NAME: POGOSTEMON CABLIN
ORIGIN: INDONESIA

KEY CONSTITUENTS PRESENT IN THIS BATCH OF PATCHOULI OIL	%
PATCHOULOL	28.7
δ -GUAIENE	18.6
α -GUAIENE	14.1
SEYCHELLENE	6.3
α -HUMULENE	5.5
β -CARYOPHYLLENE	3.6
ACIPHYLLENE	3.1
β -PATCHOULENE	2.8
POGOSTOL	2.0
γ -PATCHOULENE	2.0
POGOSTONE	1.6
δ -PATCHOULENE	1.0

Comments from Robert Tisserand: Characteristic green-woody-mossy odor profile. All 7 key ISO constituents are within range.

Date : July 26, 2016

SAMPLE IDENTIFICATION

Internal code : 16G12-PTH4-1-DM

Customer identification : Patchouli Dark - Indonesia - P2010464R

Type : Essential oil

Source : *Pogostemon cablin*

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 : 2016-07-25

Checked and approved by :



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

Note: This report may not be published, including online, without the written consent from Laboratoire PhytoChemia.

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.	
α -Pinene	3.33	928	0.09	0.08	945	0.88	Monoterpene
β -Pinene	4.11	975	0.21	0.21	1038	1.40	Monoterpene
Limonene	5.06	1030	0.02	0.02	1138	2.31	Monoterpene
δ -Elemene	14.94	1326	0.12	2.86	1422	6.21*	Sesquiterpene
α -Copaene	17.26	1361	0.41	0.39	1435	6.45	Sesquiterpene
β -Patchoulene	17.57	1366	2.76	[2.86]	1422	6.21*	Sesquiterpene
β -Elemene	18.48	1380	0.83	15.63	1534	8.56*	Sesquiterpene
Cycloseychellene	19.48	1395	0.59	0.59	1481	7.34	Sesquiterpene
β -Caryophyllene	20.15	1405	3.60	2.76	1524	8.26	Sesquiterpene
α -Guaiene	21.89	1426	14.14	[15.63]	1534	8.56*	Sesquiterpene
Seychellene	22.12	1429	6.26	11.59	1551	9.09*	Sesquiterpene
α -Humulene	23.00*	1440	5.46	0.58	1584	10.08	Sesquiterpene
α -Patchoulene	23.00*	1440	[5.46]	[11.59]	1551	9.09*	Sesquiterpene
γ -Patchoulene	23.21	1442	1.95	1.50	1553	9.14	Sesquiterpene
δ -Patchoulene	23.40	1444	0.95	0.91	1561	9.39	Sesquiterpene
γ -Gurjunene	23.78	1449	0.42	0.23	1611	10.89	Sesquiterpene
<i>trans</i> -Cadinane-1(6),4-diene	24.07	1452	0.06	0.06	1577	9.87	Sesquiterpene
Germacrene D	24.90	1463	0.10	0.15	1619	11.17	Sesquiterpene
β -Selinene	25.82	1474	0.72	3.27	1626	11.51*	Sesquiterpene
δ -Selinene	26.22	1479	0.15				Sesquiterpene
Aciphyllene	26.57	1483	3.05	[3.27]	1626	11.51*	Sesquiterpene
δ -Guaiene	27.28	1491	18.55	18.72	1641	12.17	Sesquiterpene
Nootkatene	27.36	1492	0.43	0.38	1694	14.58	Sesquiterpene
7-epi- α -Selinene	28.14	1502	0.48	0.72	1665	13.23	Sesquiterpene
δ -Cadinene	28.72	1510	0.14	0.11	1672	13.56	Sesquiterpene
Selina-3,7(11)-diene	29.65	1522	0.16	0.14	1675	13.67	Sesquiterpene
Norpatchoulenol	32.52	1561	0.54	0.53	1965	31.41*	Norsesquiterp. alcohol
Caryophyllene oxide	33.07	1569	0.13	0.20	1844	23.34	Sesquiterp. ether
Spathulenol	33.31	1572	0.24	0.24	2010	34.14	Sesquiterp. alcohol
1-epi-Cubenol	36.52	1626	0.63	[0.53]	1965	31.41*	Sesquiterp. alcohol
Patchoulol	37.95*	1661	30.86	28.65	2027	35.12	Sesquiterp. alcohol
Pogostol	37.95*	1661	[30.86]	1.99	2093	37.42	Sesquiterp. alcohol
Patchoulenone	39.50	1699	0.06				Sesquiterp. ketone
Pogostone	40.49	1728	1.84	1.61	2330	43.73	Lactone
Total identified			95.95%	94.12%			

*: 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 : Yellow liquid

Refractive index : 1.5065 ± 0.0003 (20 °C)

CONCLUSION

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



