



PLANT THERAPY
100% PURE ESSENTIAL OILS

GC/MS BATCH NUMBER: A10101

ESSENTIAL OIL: ALLSPICE

BOTANICAL NAME: PIMENTA OFFICIANALIS

ORIGIN: JAMAICA

KEY CONSTITUENTS PRESENT IN THIS BATCH OF ALLSPICE OIL	%
EUGENOL	75.0
METHYLEUGENOL	6.8
β -CARYOPHYLLENE	6.1
LIMONENE	2.5
1,8-CINEOLE	1.9
α -HUMULENE	1.5

Comments from Robert Tisserand: Characteristic spicy, powdery odor profile, with constituents in expected amounts.

Date : January 27, 2017

SAMPLE IDENTIFICATION

Internal code : 17A23-PTH6-1-DM

Customer identification : Allspice - A1010164R

Type : Essential Oil

Source : *Pimenta officinalis*

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 : Sylvain Mercier, M. Sc., chimiste

Analysis date : 2017-01-26

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.	
α -Thujene	3.24	921	0.01	0.01	955	1.29	Monoterpene
α -Pinene	3.34	927	0.08	0.07	943	1.24	Monoterpene
Sabinene	4.06	972	0.01	0.01	1066	2.11	Monoterpene
β -Pinene	4.12	976	0.01	0.01	1043	1.93	Monoterpene
Myrcene	4.40	994	0.61	0.59	1118	2.70	Monoterpene
α -Phellandrene	4.67	1007	0.22	0.21	1111	2.61	Monoterpene
α -Terpinene	4.86	1017	0.02	0.02	1125	2.80	Monoterpene
Limonene	5.09*	1029	2.65	2.49	1144	3.05	Monoterpene
para-Cymene	5.09*	1029	[2.65]	0.16	1211	3.98	Monoterpene
1,8-Cineole	5.15	1032	1.86	1.92	1150	3.13	Monoterp. ether
<i>cis</i> - β -Ocimene	5.27	1038	0.02	0.02	1190	3.65	Monoterpene
<i>trans</i> - β -Ocimene	5.45	1048	0.02	0.02	1204	3.87	Monoterpene
γ -Terpinene	5.63	1057	0.09	0.09	1192	3.68	Monoterpene
Terpinolene	6.11	1082	0.27	0.27	1226	4.19	Monoterpene
para-Cymenene	6.33	1093	0.01	0.01	1369	6.43	Monoterpene
Linalool	6.64	1105	0.06	0.06	1497	9.46	Monoterp. alcohol
Terpinen-4-ol	8.68	1181	0.01	0.01	1527	10.60	Monoterp. alcohol
α -Terpineol	9.35	1202	0.02	0.02	1635	15.30	Monoterp. alcohol
Chavicol	13.94	1302	0.28	0.32	2240	44.14	Phenylpropanoid
α -Copaene	17.34	1354	0.26	0.23	1426	7.65	Sesquiterpene
Eugenol	18.48	1370	74.97	76.41	2068	39.60	Phenylpropanoid
β -Elemene	18.59	1372	0.12	0.64	1521	10.35*	Sesquiterpene
β -Caryophyllene	20.40	1398	6.12	5.96	1517	10.21	Sesquiterpene
Methyleugenol	21.68	1414	6.82	6.67	1936	34.59	Phenylpropanoid
Aromadendrene	21.83	1416	0.63	[0.64]	1521	10.35*	Sesquiterpene
α -Humulene	23.08	1431	1.48	1.41	1578	12.54	Sesquiterpene
allo-Aromadendrene	23.75	1439	0.01	0.02	1555	11.66	Sesquiterpene
γ -Selinene	25.05	1454	0.17	0.16	1604	13.72	Sesquiterpene
γ -Muurolene	25.21	1456	0.23	0.19	1613	14.20	Sesquiterpene
δ -Selinene	25.83	1464	0.10				Sesquiterpene
Viridiflorene	26.21	1468	0.01	0.02	1609	13.95	Sesquiterpene
α -Selinene	26.42	1471	0.05	0.04	1638	15.50	Sesquiterpene
γ -Cadinene	28.41	1495	0.13	0.10	1651	16.18	Sesquiterpene
δ -Cadinene	28.89	1501	0.22	0.17	1668	17.10	Sesquiterpene
<i>trans</i> -Calamenene	29.28	1507	0.08	0.08	1727	20.76	Sesquiterpene
Eugenyl acetate	30.93	1529	0.18	0.16	2158	42.10	Phenylpropanoid ester
Caryophyllene oxide	33.49	1565	0.21	0.12	1844	28.98	Sesquiterp. ether
Humulene epoxide II	35.21	1588	0.05	0.05	1895	32.75	Sesquiterp. ether
α -Eudesmol	37.91	1649	0.04	0.02	2125	41.23	Sesquiterp. alcohol

α -Cadinol	37.96	1650	0.02	0.02	2122	41.16	Sesquiterp. alcohol
Total identified	98.15%		98.78%				

*: 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 : Light brown liquid

Refractive index : 1.5315 ± 0.0003 (20 °C)

CONCLUSION

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



