



PLANT THERAPY
100% PURE ESSENTIAL OILS

GC/MS BATCH NUMBER: CB0101

ESSENTIAL OIL: CINNAMON LEAF
BOTANICAL NAME: CINNAMOMUM VERUM
ORIGIN: SRI LANKA

KEY CONSTITUENTS PRESENT IN THIS BATCH OF CINNAMON LEAF OIL	%
EUGENOL	75.0
β-CARYOPHYLLENE	3.2
BENZYL BENZOATE	3.0
EUGENYL ACETATE	2.7
LINALOOL	2.3
(E)-CINNAMYL ACETATE	1.7
(E)-CINNAMALDEHYDE	1.4
SAFROLE	1.0
α-PINENE	1.0

Comments from Robert Tisserand: Sweet-spicy, clove-like odor profile. Meets all five ISO standards for Cinnamon leaf oil.

Date : May 23, 2017

SAMPLE IDENTIFICATION

Internal code : 17E16-PTH4-1-DM

Customer identification : Cinnamon Leaf - CB01012NDTSTR

Type : Essential oil

Source : *Cinnamomum verum*

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 : 2017-05-23

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.	
Styrene	2.88	896	0.02	0.03	1199	3.52*	Phenylpropanoid
α-Thujene	3.31	922	0.13	0.14	952	1.14	Monoterpene
α-Pinene	3.42	929	0.99	0.93	942	1.10	Monoterpene
Camphene	3.70*	946	0.34	0.31	999	1.37	Monoterpene
α-Fenchene	3.70*	946	[0.34]	0.01	992	1.31	Monoterpene
Benzaldehyde	4.19*	975	0.52	0.53	1429	7.11*	Simple phenolic
β-Pinene	4.19*	975	[0.52]	0.30	1037	1.71	Monoterpene
Myrcene	4.47	991	0.12	0.12	1114	2.42	Monoterpene
α-Phellandrene	4.75*	1007	1.05	0.93	1108	2.34	Monoterpene
Δ3-Carene	4.75*	1007	[1.05]	0.07	1079	2.16	Monoterpene
α-Terpinene	4.93	1017	0.11	0.10	1120	2.51	Monoterpene
para-Cymene	5.12	1027	0.85	0.85	1205	3.61	Monoterpene
Limonene	5.16	1030	0.32	0.29	1138	2.73	Monoterpene
β-Phellandrene	5.19	1031	0.40	0.52	1144	2.81*	Monoterpene
1,8-Cineole	5.22	1033	0.13	[0.52]	1144	2.81*	Monoterp. ether
cis-β-Ocimene	5.34	1040	0.02	0.01	1183	3.32	Monoterpene
trans-β-Ocimene	5.52	1049	0.04	[0.03]	1199	3.52*	Monoterpene
Benzyl alcohol	5.59	1053	0.04	0.04	1773	21.59*	Simple phenolic
γ-Terpinene	5.70	1060	0.02	0.04	1185	3.35	Monoterpene
cis-Linalool oxide (fur.)	5.98	1074	0.02	0.02	1372	6.11	Monoterp. alcohol
Isoterpinolene	6.10	1081	0.01	0.01	1216	3.76	Monoterpene
Terpinolene	6.18	1086	0.08	0.07	1221	3.82	Monoterpene
trans-Linalool oxide (fur.)	6.29	1092	0.03	0.04	1401	6.56	Monoterp. alcohol
para-Cymenene	6.38	1096	0.01	0.01	1364	5.98	Monoterpene
Linalool	6.65	1108	2.29	2.25	1489	8.54	Monoterp. alcohol
Camphor	7.73	1147	0.01	0.01	1422	6.93*	Monoterp. ketone
Benzyl acetate	8.34	1169	0.04	0.04	1635	13.72	Phenolic ester
Hydrocinnamaldehyde	8.39	1171	0.04				Phenylpropanoid
Borneol	8.51	1176	0.06	0.05	1611	12.64	Monoterp. alcohol
Terpinen-4-ol	8.71	1183	0.09	0.11	1526	9.51	Monoterp. alcohol
para-Cymen-8-ol	9.18	1200	0.04	[0.04]	1773	21.59*	Monoterp. alcohol
α-Terpineol	9.33	1203	0.27	0.25	1622	13.05	Monoterp. alcohol
α-Phellandrene epoxide	9.59	1209	0.04	0.04	1716	17.93	Monoterpene
Hydrocinnamyl alcohol	10.95	1239	0.08				Phenylpropanoid
Chavicol	12.66	1277	0.16	0.10	2228	42.76	Phenylpropanoid
(E)-Cinnamaldehyde	12.96	1284	1.39	2.34	1908	30.93	Phenylpropanoid
Safrole	13.43	1294	1.00	0.96	1759	20.63	Phenylpropanoid
(E)-Cinnamyl alcohol	15.40	1326	0.12	0.13	2165	41.13	Phenylpropanoid
α-Cubebene	15.91	1334	0.01	[0.01]	1422	6.93*	Sesquiterpene
Eugenol	18.18*	1368	75.37	75.00	2060	38.03	Phenylpropanoid
α-Copaene	18.18*	1368	[75.37]	[0.53]	1429	7.11*	Sesquiterpene

Hydrocinnamyl acetate	18.74	1377	0.11				Phenylpropanoid
β-Caryophyllene	20.60	1404	3.20	3.27	1520	9.29	Sesquiterpene
α-Humulene	23.28	1436	0.54	0.54	1576	11.36	Sesquiterpene
(E)-Cinnamyl acetate	24.77	1454	1.69	1.67	2037	37.32	Phenylpropanoid ester
Bicyclogermacrene	26.70	1477	0.09	0.07	1638	13.87	Sesquiterpene
α-Murolene	27.47	1487	0.04	0.03	1642	14.08	Sesquiterpene
δ-Cadinene	29.15	1508	0.20	0.23	1669	15.47	Sesquiterpene
trans-Calamenene	29.49	1513	0.02				Sesquiterpene
Eugenyl acetate	31.01	1534	2.74	2.77	2152	40.80	Phenylpropanoid ester
(E)-o-Methoxycinnamaldehyde	31.88	1546	0.06	0.07	2297	44.37	Phenylpropanoid
Caryophyllene oxide	33.63*	1570	0.51	0.39	1847	26.52	Sesquiterp. ether
Spathulenol	33.63*	1570	[0.51]	0.05	2019	36.55	Sesquiterp. alcohol
Caryophylla-4(12),8(13)-dien-5α-ol	36.70	1623	0.04	0.03	2173	41.36	Sesquiterp. alcohol
Benzyl benzoate	42.16	1773	3.03	3.19	2472	48.09	Phenolic ester
Phenylethyl benzoate	44.60	1858	0.02	0.02	2554	49.73	Phenolic ester
Total identified			98.55%	98.98%			

*: 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

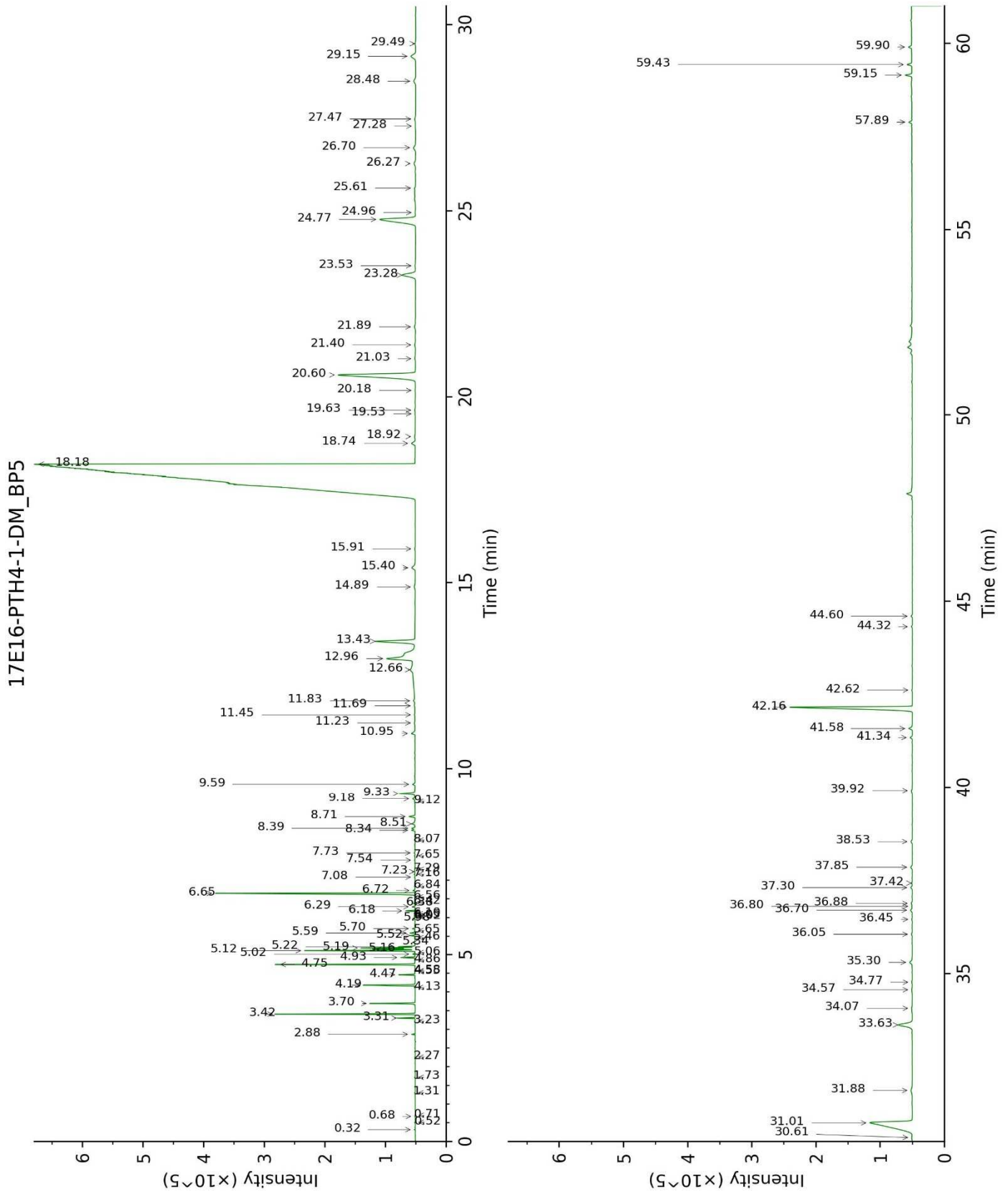
OTHER DATA

Physical aspect : Yellow liquid

Refractive index : 1.5325 ± 0.0003 (20 °C)

CONCLUSION

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



17E16-PTH4-1-DM_WAX

