

GC/MS BATCH NUMBER: C30101

ESSENTIAL OIL: CAMPHOR
BOTANICAL NAME: CINNAMOMUM CAMPHORA
ORIGIN: CHINA

KEY CONSTITUENTS PRESENT IN THIS BATCH OF CAMPHOR OIL	%
1,8-CINEOLE	36.4
LIMONENE	22.3
α -PINENE	14.0
p-CYMENE	11.8
SABINENE	4.2
MYRCENE	3.0
γ -TERPINENE	2.7
β -PINENE	2.4
α -TERPINENE	1.7
CAMPHENE	1.4
α -THUJENE	1.2
α -PHELLANDRENE	1.0

Comments from Robert Tisserand: A fresh, clean cineole chemotype of camphor oil, with constituents in expected amounts.

Date : February 11, 2016

SAMPLE IDENTIFICATION

Internal code : 16B01-PTH7-1-LC

Customer identification : Camphor - China - C3010156R

Type : Essential oil

Source : *Cinnamomum camphora*

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 : 2016-02-08

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.	
Tricyclene	2.76	913	0.04	0.02	926	0.94	Monoterpene
α -Thujene	2.87	919	1.23	1.29	959	1.08	Monoterpene
α -Pinene	2.99	927	13.97	13.68	954	1.05	Monoterpene
α -Fenchene	3.20	940	0.10	0.18	992	1.24	Monoterpene
Camphene	3.22	942	1.38	1.33	1004	1.29	Monoterpene
Sabinene	3.66	969	4.16	4.20	1068	1.78	Monoterpene
β -Pinene	3.70	972	2.43	2.39	1050	1.62	Monoterpene
Myrcene	4.01	991	3.03	2.96	1124	2.31	Monoterpene
6-Methyl-5-hepten-2-one	4.08	995	0.30	0.17	1284	4.49	Aliphatic ketone
Δ^3 -Carene	4.25*	1005	1.20	0.16	1097	2.04	Monoterpene
α -Phellandrene	4.25*	1005	[1.20]	1.04	1117	2.22	Monoterpene
α -Terpinene	4.44	1015	1.74	1.70	1131	2.40	Monoterpene
1,8-Cineole	4.78*	1034	54.98	36.43	1164	2.81	Monoterp. ether
Limonene	4.78*	1034	[54.98]	22.34	1155	2.70	Monoterpene
para-Cymene	4.80	1035	11.78	8.23	1218	3.51	Monoterpene
cis- β -Ocimene	4.87	1039	0.08	0.04	1193	3.18	Monoterpene
trans- β -Ocimene	5.04	1049	0.53	0.52	1210	3.40	Monoterpene
γ -Terpinene	5.21	1059	2.65	2.68	1196	3.22	Monoterpene
cis-Sabinene hydrate	5.48	1075	0.04	0.06	1417	6.58*	Monoterp. alcohol
Terpinolene	5.65	1085	0.12	0.12	1229	3.66	Monoterpene
trans-Linalool oxide (fur.)	5.78	1092	0.04	[0.06]	1417	6.58*	Monoterp. alcohol
para-Cymenene	5.88	1097	0.02	0.02	1385	6.02	Monoterpene
Linalool	6.15	1109	0.02	0.02	1514	8.61	Monoterp. alcohol
Camphor	6.95	1143	0.04	0.02	1427	6.77	Monoterp. ketone
Total identified			99.88%	99.60%			

*: 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

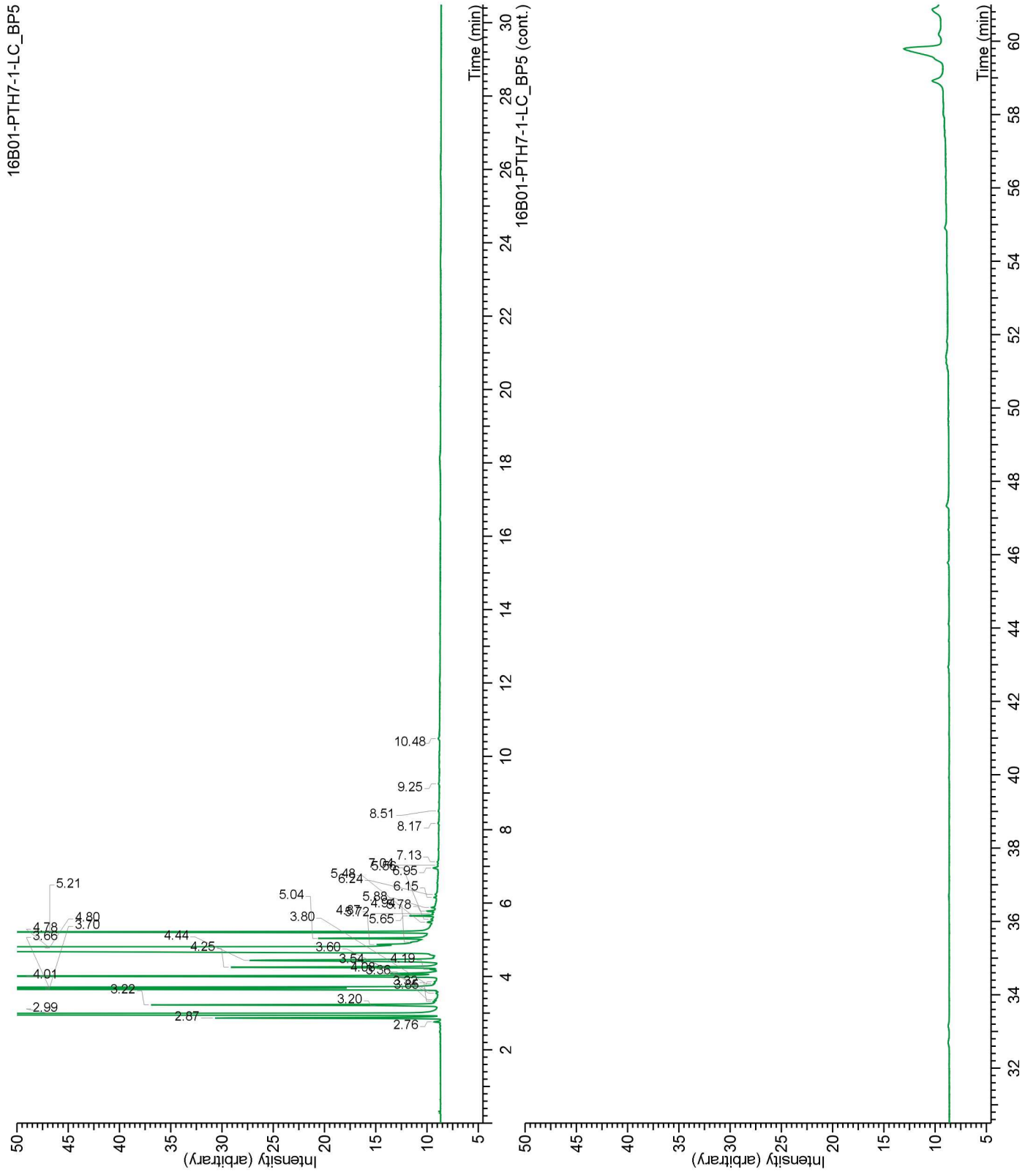
OTHER DATA

Physical aspect : Clear liquid

Refractive index : 1.4685 \pm 0.0003 (20 °C)

CONCLUSION

No adulterant, contaminant or diluent were detected using this method. This sample corresponds to the 1,8-cineole chemotype of the species.



16B01-PTH7-1-LC_WAX

