



PLANT THERAPY
100% PURE ESSENTIAL OILS

GC/MS BATCH NUMBER: L10104

ESSENTIAL OIL: LAUREL LEAF
BOTANICAL NAME: LAURUS NOBILIS
ORIGIN: CORSICA

KEY CONSTITUENTS PRESENT IN THIS BATCH OF LAUREL LEAF OIL	%
1,8-CINEOLE + LIMONENE	47.0
α -PINENE	7.6
α -TERPINYL ACETATE	6.7
LINALOOL	6.6
SABINENE	5.7
β -PINENE	4.8
α -TERPINEOL	3.9
METHYLEUGENOL	2.3
EUGENOL	2.1
TERPINEN-4-ol	1.8
CAMPHENE	1.7
p-CYMENE	1.6

Comments from Robert Tisserand: Characteristic green-spicy odor profile. Constituents are in expected amounts.

Date : November 10, 2017

SAMPLE IDENTIFICATION

Internal code : 17K08-PTH2-1-CC

Customer identification : Laurel leaf - Corsica - L1010469R

Type : Essential oil

Source : *Laurus nobilis*

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 : 2017-11-09

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.	
<i>cis</i> -Hex-3-en-1-ol	2.51	866	0.05	0.05	1320	5.45	Aliphatic alcohol
Tricyclene	3.24	916	0.09	0.06	923	1.05	Monoterpene
α -Thujene	3.32	921	0.29	7.71	952	1.16*	Monoterpene
α -Pinene	3.44	928	7.59	[7.71]	952	1.16*	Monoterpene
α -Fenchene	3.70	943	0.12	0.12	995	1.39	Monoterpene
Camphene	3.72	944	1.66	1.68	1001	1.45	Monoterpene
Thuja-2,4(10)-diene	3.81	949	0.01	5.77	1055	1.99*	Monoterpene
Sabinene	4.16	970	5.72	[5.77]	1055	1.99*	Monoterpene
β -Pinene	4.23	974	4.83	4.55	1039	1.81	Monoterpene
Myrcene	4.49*	990	0.94	0.83	1116	2.56	Monoterpene
Dehydro-1,8-cineole	4.49*	990	[0.94]	0.44	1123	2.65*	Monoterp. ether
α -Phellandrene	4.76*	1005	0.35	0.14	1110	2.48	Monoterpene
Δ 3-Carene	4.76*	1005	[0.35]	0.10	1079	2.28	Monoterpene
α -Terpinene	4.95	1016	0.29	[0.44]	1123	2.65*	Monoterpene
1,8-Cineole	5.31*	1035	48.59	47.79	1153	3.03*	Monoterp. ether
Limonene	5.31*	1035	[48.59]	[47.79]	1153	3.03*	Monoterpene
para-Cymene	5.31*	1035	[48.59]	1.58	1209	3.78	Monoterpene
<i>cis</i> - β -Ocimene	5.36	1038	0.06	0.81	1189	3.52*	Monoterpene
<i>trans</i> - β -Ocimene	5.54	1047	0.16	0.11	1203	3.70	Monoterpene
γ -Terpinene	5.73	1058	0.73	[0.81]	1189	3.52*	Monoterpene
<i>cis</i> -Linalool oxide (fur.)	6.01	1073	0.03	0.02	1373	6.29	Monoterp. alcohol
<i>cis</i> -Sabinene hydrate	6.07	1076	0.14	0.17	1404	6.78*	Monoterp. alcohol
Terpinolene	6.20	1083	0.15	0.15	1223	4.00	Monoterpene
<i>trans</i> -Linalool oxide (fur.)	6.32	1090	0.02	[0.17]	1404	6.78*	Monoterp. alcohol
para-Cymenene	6.43	1096	0.01	0.01	1365	6.16	Monoterpene
Linalool	6.76*	1108	6.73	6.70	1494	8.92*	Monoterp. alcohol
<i>trans</i> -Sabinene hydrate	6.76*	1108	[6.73]	0.12	1476	8.50	Monoterp. alcohol
<i>cis</i> -para-Menth-2-en-1-ol	7.24	1126	0.05	[6.70]	1494	8.92*	Monoterp. alcohol
Camphor	7.78	1145	1.10	1.11	1421	7.19	Monoterp. ketone
δ -Terpineol	8.66*	1178	0.51	0.17	1594	12.48	Monoterp. alcohol
Borneol	8.66*	1178	[0.51]	7.60	1618	13.55*	Monoterp. alcohol
Terpinen-4-ol	8.84	1184	1.75	2.21	1524	9.92*	Monoterp. alcohol
α -Terpineol	9.56	1205	3.92	3.40	1620	13.69*	Monoterp. alcohol
Nerol	10.59	1228	0.09	0.08	1726	19.40	Monoterp. alcohol
Linalyl acetate	11.40	1246	0.07	0.23	1506	9.23*	Monoterp. ester
4-Thujen-2- α -yl acetate?	12.33	1266	0.03	0.04	1551	10.89*	Monoterp. ester
Bornyl acetate	12.92	1279	0.20	[0.23]	1506	9.23*	Monoterp. ester
Lavandulyl acetate	13.43	1290	0.02	[0.04]	1551	10.89*	Monoterp. ester
δ -Terpinyl acetate	14.59	1310	0.23	0.22	1569	11.57	Monoterp. ester
α -Cubebene	15.98	1331	0.02	[0.17]	1404	6.78*	Sesquiterpene
α -Terpinyl acetate	16.80	1343	6.70	[7.60]	1618	13.55*	Monoterp. ester

Eugenol	17.77	1358	2.05	2.01	2053	38.39	Phenylpropanoid
Neryl acetate	17.87	1360	0.02	0.04	1660	15.73	Monoterp. ester
β-Elemene	18.95	1376	0.11	[2.21]	1524	9.92*	Sesquiterpene
β-Caryophyllene	20.62	1401	0.92	0.58	1520	9.75	Sesquiterpene
Methyleugenol	21.76	1414	2.26	2.24	1929	33.27	Phenylpropanoid
α-Guaiene	22.10	1418	0.03	0.04	1535	10.30	Sesquiterpene
α-Humulene	23.42	1434	0.06	0.09	1582	12.00	Sesquiterpene
allo-Aromadendrene	23.69	1437	0.03	0.04	1563	11.35	Sesquiterpene
Germacrene D	25.63	1460	0.02	[3.40]	1620	13.69*	Sesquiterpene
β-Selinene	26.24	1468	0.07	[3.40]	1620	13.69*	Sesquiterpene
Viridiflorene	26.40	1469	0.03	[7.60]	1618	13.55*	Sesquiterpene
Bicyclgermacrene	26.89	1475	0.07	0.07	1640	14.67	Sesquiterpene
γ-Cadinene	28.72	1497	0.04	0.08	1662	15.87	Sesquiterpene
δ-Cadinene	29.36	1506	0.06	0.09	1673	16.44	Sesquiterpene
Caryophyllene oxide	33.84	1569	0.13	0.07	1844	27.45	Sesquiterp. ether
Spathulenol	34.01	1571	0.06	0.05	2013	37.07	Sesquiterp. alcohol
β-Eudesmol	37.90	1647	0.02	0.03	2106	40.03	Sesquiterp. alcohol
α-Eudesmol	38.10	1652	0.02	0.02	2119	40.44	Sesquiterp. alcohol
Total identified			99.25%	99.42%			

*: 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

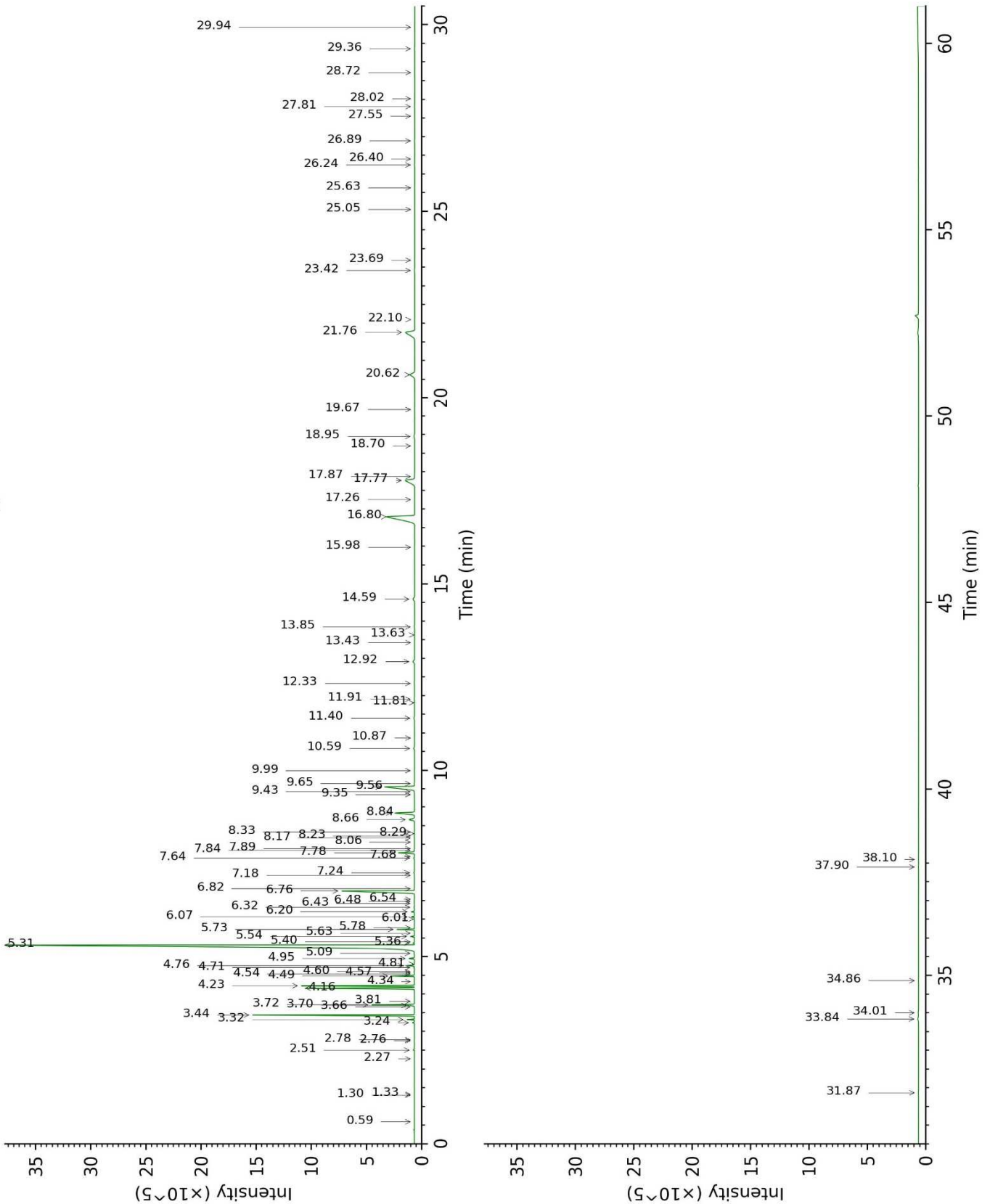
Physical aspect : Clear liquid

Refractive index : 1.4688 ± 0.0003 (20 °C)

CONCLUSION

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

17K08-PTH2-1-CC_BP5



17K08-PTH2-1-CC_WAX

