

GC/MS BATCH NUMBER: E40103

ESSENTIAL OIL: EUCALYPTUS RADIATA
BOTANICAL NAME: EUCALYPTUS RADIATA
ORIGIN: AUSTRALIA

KEY CONSTITUENTS PRESENT IN THIS BATCH OF EUCALYPTUS RADIATA OIL	%
1,8-CINEOLE + LIMONENE	76.2
α -TERPINEOL	10.0
α -PINENE	2.3
SABINENE	1.7
MYRCENE	1.3
TERPINEN-4-OL	1.2
α -TERPINYL ACETATE	1.1
GERANIOL	1.1

Comments from Robert Tisserand: A very nice, slightly minty E. radiata.

Date : October 18, 2017

SAMPLE IDENTIFICATION

Internal code : 17J04-PTH3-1-CC

Customer identification : Eucalyptus Radiata - Australia - E4010375R

Type : Essential oil

Source : *Eucalyptus radiata* var. *Australiana*

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 : 2017-10-18

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.	
Ethanol	0.35	632	0.05	0.05	789	0.70	Aliphatic alcohol
<i>cis</i> -Hex-3-en-1-ol	2.48	864	0.06	0.06	1326	5.54	Aliphatic alcohol
<i>trans</i> -Hex-2-en-1-ol	2.66	877	0.03	0.03	1350	5.91	Aliphatic alcohol
Hexanol	2.72	882	0.03	0.02	1302	5.17	Aliphatic alcohol
α -Thujene	3.31	920	0.23	2.43	954	1.18*	Monoterpene
α -Pinene	3.42	927	2.33	[2.43]	954	1.18*	Monoterpene
Sabinene	4.14	969	1.65	1.63	1058	2.02	Monoterpene
β -Pinene	4.20	973	0.67	0.60	1042	1.84	Monoterpene
Myrcene	4.48	989	1.31	1.70	1121	2.62*	Monoterpene
6-Methyl-5-hepten-2-one	4.56	994	0.01	0.01	1266	4.63	Aliphatic ketone
α -Phellandrene	4.76	1005	0.63	0.39	1114	2.53	Monoterpene
α -Terpinene	4.95	1015	0.22	[1.70]	1121	2.62*	Monoterpene
1,8-Cineole	5.33*	1036	76.08	76.23	1160	3.12*	Monoterp. ether
Limonene	5.33*	1036	[76.08]	[76.23]	1160	3.12*	Monoterpene
<i>para</i> -Cymene	5.33*	1036	[76.08]	0.42	1214	3.86	Monoterpene
<i>cis</i> - β -Ocimene	5.36	1038	0.05	0.40	1195	3.59*	Monoterpene
<i>trans</i> - β -Ocimene	5.54	1047	0.32	0.22	1208	3.77	Monoterpene
γ -Terpinene	5.73	1058	0.41	[0.40]	1195	3.59*	Monoterpene
<i>cis</i> -Linalool oxide (fur.)	6.00	1072	0.03	0.02	1379	6.39	Monoterp. alcohol
<i>cis</i> -Sabinene hydrate	6.06	1076	0.01	0.05	1408	6.88*	Monoterp. alcohol
Terpinolene	6.20	1083	0.14	0.12	1229	4.08	Monoterpene
<i>trans</i> -Linalool oxide (fur.)	6.32	1090	0.04	[0.05]	1408	6.88*	Monoterp. alcohol
Linalool	6.70	1106	0.40	0.57	1499	9.03*	Monoterp. alcohol
<i>cis</i> - <i>para</i> -Menth-2-en-1-ol	7.22	1125	0.18	[0.57]	1499	9.03*	Monoterp. alcohol
<i>trans</i> - <i>para</i> -Menth-2-en-1-ol	7.74	1144	0.12	0.10	1557	11.10	Monoterp. alcohol
Citronellal	7.98	1153	0.04	0.03	1419	7.14	Monoterp. aldehyde
Borneol	8.63	1176	0.21	0.71	1621	13.73*	Monoterp. alcohol
Terpinen-4-ol	8.81	1183	1.15	1.18	1529	10.09	Monoterp. alcohol
α -Terpineol	9.59	1206	9.98	10.49	1626	14.00*	Monoterp. alcohol
<i>trans</i> -Piperitol	9.98	1215	0.07	0.06	1670	16.29	Monoterp. alcohol
Nerol	10.58	1228	0.04	0.04	1732	19.81	Monoterp. alcohol
Citronellol	10.83	1233	0.06	0.04	1711	18.42	Monoterp. alcohol
Neral	11.17	1241	0.26	0.47	1602	12.77*	Monoterp. aldehyde
Carvone	11.47	1247	0.03	[10.49]	1626	14.00*	Monoterp. ketone
Piperitone	11.80	1254	0.13	[0.71]	1621	13.73*	Monoterp. ketone
Geraniol	11.89	1256	1.06	1.10	1784	23.27	Monoterp. alcohol
Geranial	12.68	1274	0.34	0.38	1650	15.20	Monoterp. aldehyde
α -Terpinyl acetate	16.68	1342	1.08	[10.49]	1626	14.00*	Monoterp. ester
β -Caryophyllene	20.59	1400	0.10	0.09	1523	9.86	Sesquiterpene
<i>cis</i> - β -Guaiene	26.85	1475	0.15	[0.47]	1602	12.77*	Sesquiterpene

α -Elemol	32.61	1552	0.02	0.02	1996	36.33	Sesquiterp. alcohol
β -Eudesmol	37.89	1646	0.04	0.06	2113	40.24	Sesquiterp. alcohol
Total identified			99.76%	99.72%			

*: 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

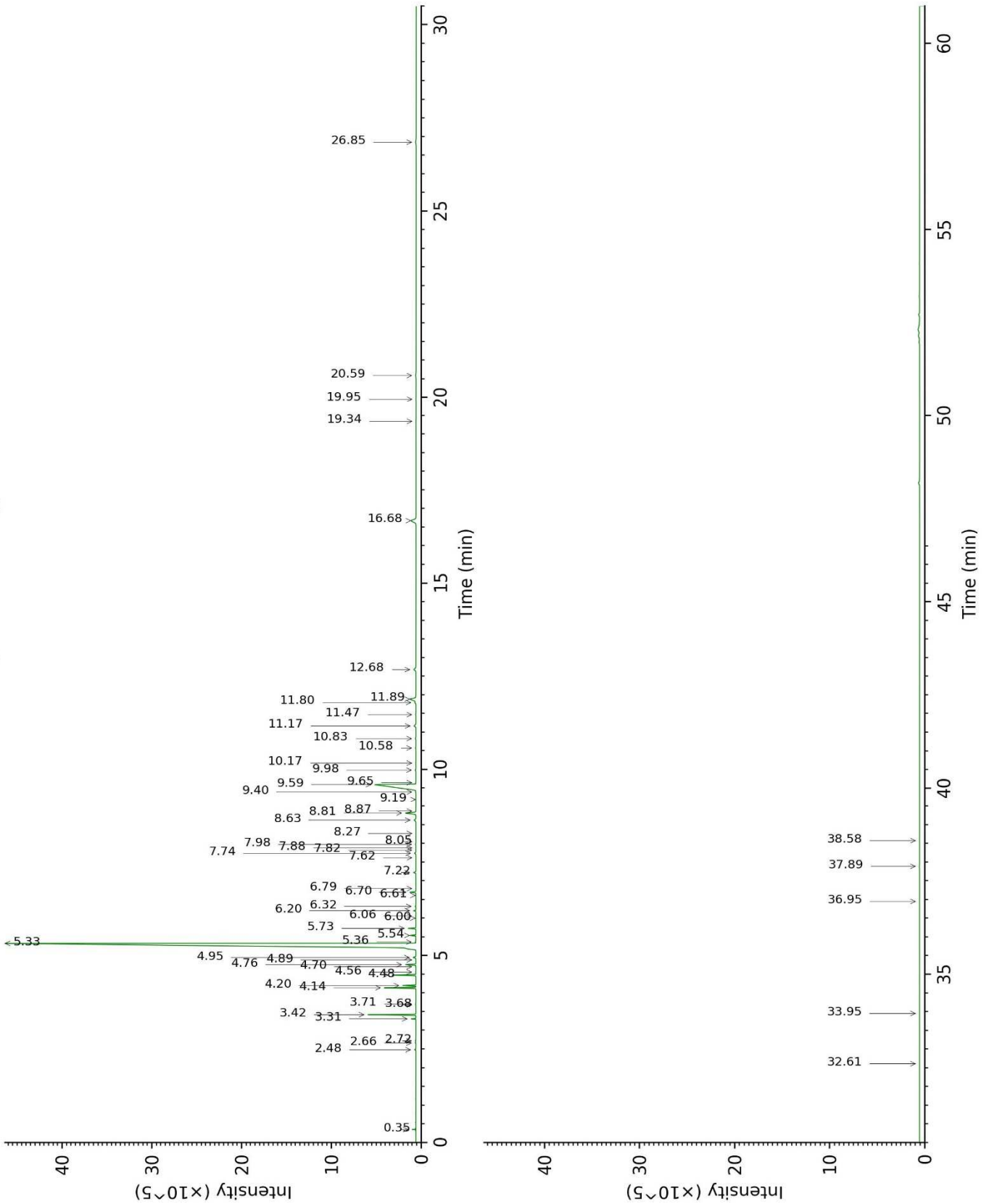
Physical aspect : Clear liquid

Refractive index : 1.4625 \pm 0.0003 (20 °C)

CONCLUSION

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

17J04-PTH3-1-CC_BP5



17J04-PTH3-1-CC_WAX

