



PLANT THERAPY
100% PURE ESSENTIAL OILS

GC/MS BATCH NUMBER: E40102

ESSENTIAL OIL: EUCALYPTUS RADIATA
BOTANICAL NAME: EUCALYPTUS RADIATA
ORIGIN: SOUTH AFRICA

KEY CONSTITUENTS PRESENT IN THIS BATCH OF EUCALYPTUS RADIATA OIL	%
1,8-CINEOLE + LIMONENE	76.4
α -TERPINEOL	9.9
TERPINEN-4-ol	1.8
α -PINENE	1.8
α -TERPINYL ACETATE	1.7
GERANIAL	1.1
SABINENE	1.0

Comments from Robert Tisserand: Crystal-clear, slightly minty eucalyptus odor profile. Constituents are in expected amounts.

Date : September 21, 2017

SAMPLE IDENTIFICATION

Internal code : 17114-PTH4-1-DM

Customer identification : Eucalyptus Radiata - South Africa - E4010267R

Type : Essential oil

Source : *Eucalyptus Radiata*

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 : 2017-09-20

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	3.31	920	0.20	1.84	939	1.19*	Monoterpene
α -Pinene	3.41	926	1.75	[1.84]	939	1.19*	Monoterpene
Camphene	3.70	943	0.01				Monoterpene
Sabinene	4.13	969	1.01	1.00	1056	2.04	Monoterpene
β -Pinene	4.20	972	0.55	0.50	1035	1.86	Monoterpene
Myrcene	4.48	989	0.99	1.04	1113	2.64	Monoterpene
α -Phellandrene	4.75	1005	0.43	0.30	1106	2.55	Monoterpene
α -Terpinene	4.95	1015	0.31	0.33	1119	2.72	Monoterpene
1,8-Cineole	5.32*	1036	76.06	76.42	1152	3.15*	Monoterp. ether
Limonene	5.32*	1036	[76.06]	[76.42]	1152	3.15*	Monoterpene
para-Cymene	5.32*	1036	[76.06]	0.24	1209	3.89	Monoterpene
cis- β -Ocimene	5.36	1038	0.02	0.61	1191	3.62*	Monoterpene
trans- β -Ocimene	5.53	1047	0.23	0.19	1203	3.80	Monoterpene
γ -Terpinene	5.72	1057	0.64	[0.61]	1191	3.62*	Monoterpene
cis-Linalool oxide (fur.)	6.00	1072	0.02	0.01	1373	6.42*	Monoterp. alcohol
cis-Sabinene hydrate	6.05	1075	0.02	0.03	1401	6.93*	Monoterp. alcohol
Terpinolene	6.19	1083	0.17	0.15	1224	4.11	Monoterpene
trans-Linalool oxide (fur.)	6.31	1089	0.02	[0.03]	1401	6.93*	Monoterp. alcohol
para-Cymenene	6.41	1095	tr	[0.01]	1373	6.42*	Monoterpene
Linalool	6.68	1106	0.39	0.45	1492	9.11*	Monoterp. alcohol
cis-para-Menth-2-en-1-ol	7.21	1125	0.10	[0.45]	1492	9.11*	Monoterp. alcohol
trans-para-Menth-2-en-1-ol	7.73	1144	0.07	0.07	1550	11.21	Monoterp. alcohol
Citronellal	7.96	1152	0.04	0.03	1412	7.20	Monoterp. aldehyde
Borneol	8.61	1176	0.20	10.56	1619	14.15*	Monoterp. alcohol
Terpinen-4-ol	8.81	1183	1.83	1.80	1523	10.19	Monoterp. alcohol
α -Terpineol	9.57	1206	9.92	[10.56]	1619	14.15*	Monoterp. alcohol
trans-Piperitol	9.96	1214	0.03	0.03	1662	16.45	Monoterp. alcohol
Nerol	10.56	1227	0.08	0.09	1723	20.01	Monoterp. alcohol
Citronellol	10.81	1233	0.05	0.05	1703	18.64	Monoterp. alcohol
Neral	11.16	1240	0.82	0.97	1595	12.90*	Monoterp. aldehyde
Piperitone	11.78	1254	0.17	[10.56]	1619	14.15*	Monoterp. ketone
Geraniol	11.85	1256	0.41	0.43	1774	23.48	Monoterp. alcohol
Geranial	12.67	1274	1.11	1.15	1642	15.35	Monoterp. aldehyde
α -Terpinyl acetate	16.67	1342	1.70	1.30	1613	13.80	Monoterp. ester
Methyl (E)-cinnamate	19.90	1390	0.19	0.19	1949	34.84	Phenylpropanoid ester
β -Caryophyllene	20.56	1400	0.06	0.04	1515	9.93	Sesquiterpene
allo-Aromadendrene	23.62	1436	0.02	0.02	1555	11.42	Sesquiterpene
cis- β -Guaiene	26.81	1474	0.13	[0.97]	1595	12.90*	Sesquiterpene
Total identified			99.75%	99.84%			

*: 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

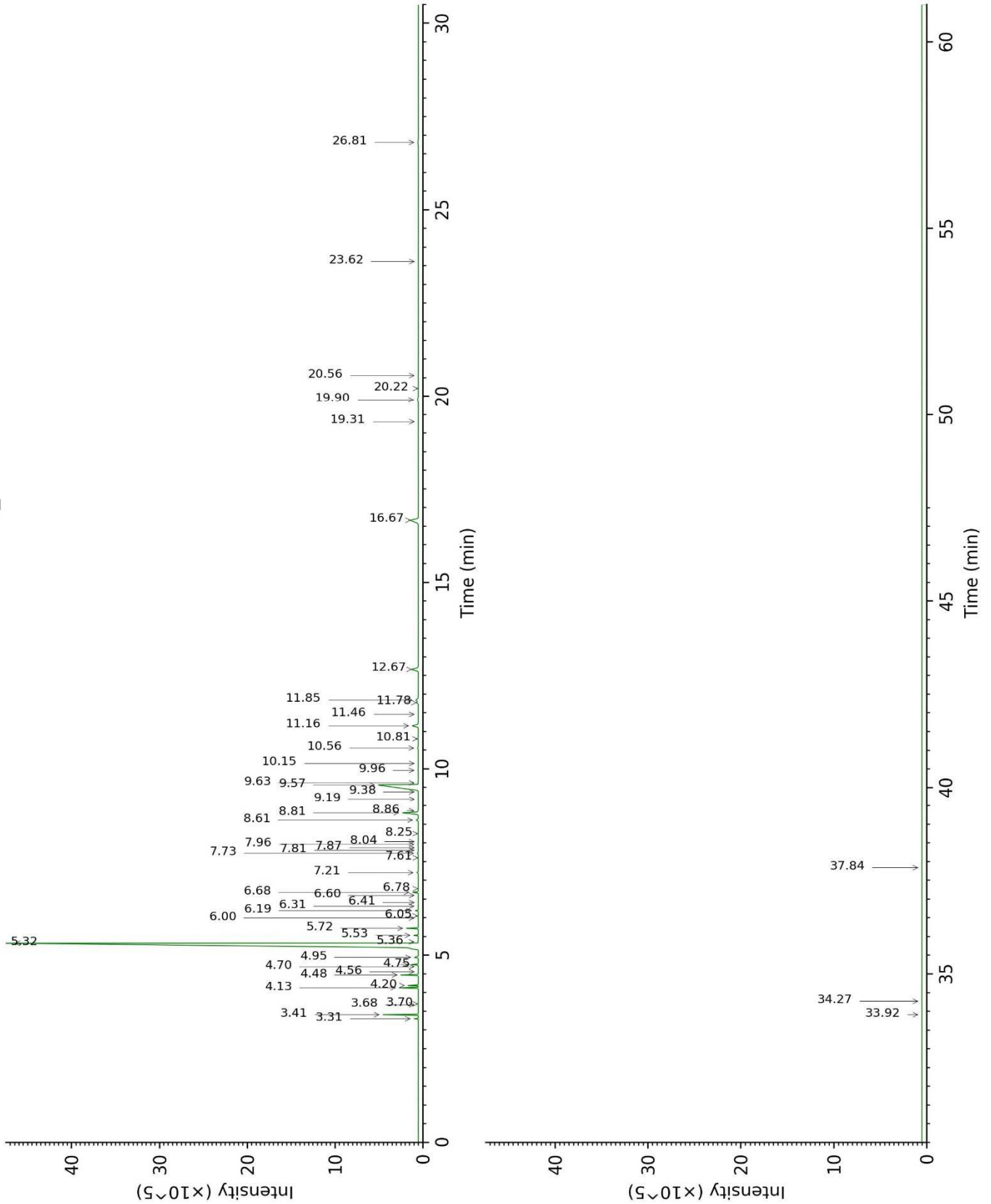
Physical aspect : Clear liquid

Refractive index : 1.4625 ± 0.0003 (20 °C)

CONCLUSION

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

17114-PTH4-1-DM_BP5



17114-PTH4-1-DM_WAX

