

ANALYSIS Cypress, White Essential Oil

Laboratoire
PhytoChemia



Plus que des analyses... des conseils



SAMPLE IDENTIFICATION

Internal code : 17B16-FSE27-1-DM

Customer identification : White Cypress Leaf - Lot #EA-2016

Type : Essential oil

Source : *Callitris glaucophylla*

Customer : Flowers Shining Everywhere Inc.



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 : 2017-03-08



Checked and approved by :

Sylvain Mercier, M. Sc., chimiste 2014-005



Note: This report may not be published, including online, without the written consent from Laboratoire PhytoChemia.

This report is digitally signed, it is only considered valid if the digital signature is intact.



Unidentified terpinyl ester	11.19	1245	0.43				Monoterp. ester
cis-Ascaridol glycol	12.28	1269	0.56				Monoterp. alcohol
Bornyl acetate	13.01*	1285	17.40	[19.95]	1515	9.53*	Monoterp. ester
trans-Ascaridol glycol	13.01*	1285	[17.40]				Monoterp. alcohol
Unknown (m/z = 43, 93, 75), 69 (50), 91 (41), 41 (31), 109 (23)...	13.87	1303	1.28				
Limonene hydroperoxide I	14.46	1312	0.45				Monoterp. peroxide
Unknown (m/z = 93, 69 (99), 91 (87), 81 (82), 41 (78), 43 (73), 79 (55), 107 (53), 109 (53)...	14.70	1315	0.71				
Myrtenyl acetate	15.09	1321	0.12	0.08	1616	13.40	Monoterp. ester
Limonene hydroperoxide II	15.76	1332	0.22				Monoterp. peroxide
α -Copaene	17.49	1358	0.26	0.23	1430	7.41	Sesquiterpene
Unknown (m/z = 107, 93 (93), 109 (56), 91 (44), 55 (36), 79 (31), 41 (25)...	17.92	1364	0.50				
trans-para-Menth-6-en-2,8-diol?	19.10	1382	0.43				Monoterp. alcohol
Isocaryophyllene	19.33	1386	0.34	[19.95]	1515	9.53*	Sesquiterpene
Unknown (m/z = 81, 79 (82), 93 (81), 107 (63), 91 (56), 105 (51), 135 (45)...	19.76	1392	0.29				
β -Caryophyllene	20.36	1401	1.79	1.94	1522	9.79	Sesquiterpene
Unknown (m/z = 120, 91 (50), 93 (44), 79 (43), 69 (39), 41 (35), 119 (33)...	21.03	1409	0.26				
8-Hydroxycarvotanacetone	21.28	1412	0.19				Monoterp. alcohol
9-epi- β -Caryophyllene	22.77	1430	0.12	0.09	1670	16.18	Sesquiterpene
α -Humulene	23.06	1434	0.18	0.20	1581	12.01	Sesquiterpene
Caryophyllene oxide analog II?	31.25	1537	0.25				Sesquiterp. ether
Caryophyllene oxide	33.58*	1570	7.03	6.03	1854	28.01	Sesquiterp. ether
Caryophyllene oxide epimer	33.58*	1570	7.03	1.49	1847	27.50	Sesquiterp. ether
Humulene epoxide II	35.16	1592	0.26	0.27	1904	31.66	Sesquiterp. ether
Caryophylla-4(12),8(13)-dien-5 α -ol	36.49	1618	0.06	0.08	2179	41.91	Sesquiterp. alcohol
Caryophylla-4(12),8(13)-dien-5 β -ol	36.71	1623	0.17	0.19	2186	42.09	Sesquiterp. alcohol
Total identified			93.22%				94.45%

*: 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: 1.4740 ± 0.0003 (20 °C)

CONCLUSION

A scientific study indicates a lower content of bornyl acetate and alpha-terpineol, and does not mention other terpineol isomers. The simultaneous presence of several terpineol isomers might indicate that foreign terpineol has been added to the oil. Yet, since literature is scarce on this oil, we will not issue any final conclusion pertaining to oil purity. Note that the presence of detectable limonene hydroperoxides by GC is likely indicative of a high level of oxidation, usually associated with irritation risks for the skin.



