



PLANT THERAPY
100% PURE ESSENTIAL OILS

GC/MS BATCH NUMBER: CB8100

ESSENTIAL OIL: CEDARWOOD TEXAS
BOTANICAL NAME: JUNIPERUS MEXICANA
ORIGIN: USA

KEY CONSTITUENTS PRESENT IN THIS BATCH OF CEDARWOOD TEXAS OIL	%
THUJOPSENE	32.4
α -CEDROL	23.1
α -CEDRENE	16.3
β -CEDRENE	4.1
WIDDROL	1.8
α -CUPRENE	1.5
CUPARENE	1.4
α -CHAMIGRENE	1.2
α -ACORENOL	1.2
β -ELEMENE	1.0

Comments from Robert Tisserand: Intense pencil sharpenings odor profile. Five of the six key ISO constituents are within range with widdrol slightly low - not a concern.

Date : April 26, 2017

SAMPLE IDENTIFICATION

Internal code : 17D24-PTH2-1-DM

Customer identification : Cedarwood TX - USA - CB8100610R

Type : Essential oil

Source : *Juniperus mexicana*

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 : 2017-04-26

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 -Pinene	3.41	928	0.15	0.14	932	1.12	Monoterpene
α -Fenchene	3.67	944	0.03	0.03	982	1.34	Monoterpene
Camphene	3.70	945	tr	0.01	990	1.39	Monoterpene
Thuja-2,4(10)-diene	3.78	950	0.03	0.03	1047	1.90	Monoterpene
Sabinene	4.12	971	tr	0.01	1069	2.11	Monoterpene
β -Pinene	4.19	975	tr				Monoterpene
Isopropenylbenzene	4.37	986	0.02				Normonoterpene
Myrcene	4.43	989	tr				Monoterpene
Δ 3-Carene	4.74	1007	0.03	0.02	1079	2.20	Monoterpene
α -Terpinene	4.92	1017	tr				Monoterpene
para-Cymene	5.10	1027	0.02	0.02	1200	3.67	Monoterpene
Limonene	5.14	1029	0.01	0.01	1132	2.78	Monoterpene
γ -Terpinene	5.69	1059	tr	tr	1180	3.40	Monoterpene
para-Cymenene	6.36	1095	0.01	0.01	1357	6.05	Monoterpene
α -Campholenal	7.20	1128	0.01				Monoterp. aldehyde
<i>trans</i> -Pinocarveol	7.50	1139	0.03	0.03	1566	11.44	Monoterp. alcohol
Camphor	7.70	1146	0.02	0.02	1423	7.23	Monoterp. ketone
meta-Mentha-4,6-dien-8-ol	7.84	1151	0.01				Monoterp. alcohol
Pinocamphone	8.06	1159	0.02	0.02	1418	7.11	Monoterp. ketone
α -Terpineol	9.28	1202	0.16	1.18	1613	13.24*	Monoterp. alcohol
Verbenone	9.71	1212	0.05	0.48	1607	12.96*	Monoterp. ketone
α -Terpinyl acetate	16.47	1342	0.16	0.74	1617	13.43	Monoterp. ester
diepi- α -Cedrene	17.75	1362	0.35	0.32	1426	7.30	Sesquiterpene
α -Duprezianene	17.92	1364	0.07	0.09	1462	8.16	Sesquiterpene
Isolongifolene	18.08	1367	0.51	0.51	1440	7.64	Sesquiterpene
β -Elemene	18.79	1378	0.90	1.08	1516	9.54	Sesquiterpene
Longifolene	19.14	1383	0.08	16.29	1487	8.76*	Sesquiterpene
2-epi- α -Cedrene	19.39	1387	0.22	[16.29]	1487	8.76*	Sesquiterpene
α -Cedrene	20.33	1401	16.26	[16.29]	1487	8.76*	Sesquiterpene
β -Funebrene?	20.52	1403	1.01	1.02	1498	9.03	Sesquiterpene
β -Cedrene	20.73	1406	4.07	3.66	1509	9.32	Sesquiterpene
Thujopsen	21.92	1420	32.38	32.67	1535	10.26	Sesquiterpene
α -Himachalene	22.63	1428	0.57	0.50	1544	10.61	Sesquiterpene
Thujopsadiene	22.88	1431	0.08	0.07	1589	12.26	Sesquiterpene
α -Acoradiene	23.99	1445	0.78	0.60	1577	11.83	Sesquiterpene
β -Acoradiene	24.24	1448	0.48	0.47	1596	12.52	Sesquiterpene
β -Chamigrene	25.07	1458	0.92	[1.18]	1613	13.24*	Sesquiterpene
γ -Himachalene	25.40	1462	0.23	[0.48]	1607	12.96*	Sesquiterpene
ar-Curcumene	26.36	1473	0.12	0.13	1684	16.91	Sesquiterpene
β -Alaskene	26.68	1477	0.20	0.14	1645	14.91	Sesquiterpene
α -Cuprenene	26.96	1480	1.53				Sesquiterpene

β-Himachalene	27.26*	1484	1.34	0.44	1632	14.18	Sesquiterpene
α-Chamigrene	27.26*	1484	[1.34]	1.17	1628	13.98	Sesquiterpene
Cuparene	27.89	1492	1.43	1.44	1706	18.04	Sesquiterpene
α-Alaskene	28.15	1495	0.38				Sesquiterpene
7-epi-α-Selinene	28.45	1498	0.08	0.07	1661	15.76	Sesquiterpene
δ-Cadinene	29.06	1507	0.09	0.08	1689	17.22	Sesquiterpene
γ-Cuprenene	30.07	1521	0.35	0.37	1594	12.45	Sesquiterpene
δ-Cuprenene	30.67	1529	0.18				Sesquiterpene
allo-Cedrol	34.40	1581	0.34	0.32	1960	34.59	Sesquiterp. alcohol
α-Cedrol	35.43*	1595	24.11	23.10	1989	35.86	Sesquiterp. alcohol
Widdrol	35.43*	1595	[24.11]	1.83	2019	37.18	Sesquiterp. alcohol
epi-Cedrol	35.85	1602	0.38				Sesquiterp. alcohol
α-Acorenol	36.60	1620	1.20	1.29	2008	36.70	Sesquiterp. alcohol
β-Acorenol	36.85	1627	0.73	0.62	2043	37.96	Sesquiterp. alcohol
Himachalol	37.18	1635	0.22	0.23	2098	39.67	Sesquiterp. alcohol
Cedr-8-en-15-ol?	37.88*	1652	0.67	0.27	2201	42.47	Sesquiterp. alcohol
Selin-11-en-4-α-ol	37.88*	1652	[0.67]	0.27	2116	40.20	Sesquiterp. alcohol
Germacra-4(15),5,10(14)- trien-1-α-ol	39.16	1683	0.26				Sesquiterp. alcohol
Cedr-8-en-13-ol	39.23	1685	0.22	0.17	2267	44.03	Sesquiterp. alcohol
Thujopsenal?	39.56	1693	0.77				Sesquiterp. aldehyde
Total identified				94.27%	91.97%		

*: 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 : Brownish yellow liquid

Refractive index : 1.5045 ± 0.0003 (20 °C)

CONCLUSION

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



