

IDENTIFIED COMPOUNDS

Identification	Column: BP5			Column: WAX			Molecular Class
	R.T.	R.I.	%	%	R.I.	R.T.	
Acetone	0.36	506	0.17	0.15	556	0.36	Aliphatic ketone
Hexanal	1.68	801	0.01	0.01	1033	1.32	Aliphatic aldehyde
cis-Hex-3-en-1-ol	2.50	865	0.01	0.01	1325	4.66	Aliphatic alcohol
4-Heptanone	2.57	871	0.02	0.02	1052	1.47*	Aliphatic ketone
Hexanol	2.71	882	0.01	0.01	1295	4.25	Aliphatic alcohol
Tricyclene	3.16	913	0.12	0.12	922	0.77	Monoterpene
α-Pinene	3.35	924	0.19	0.17	940	0.84	Monoterpene
Camphene	3.64	942	1.08	1.05	990	1.05	Monoterpene
Sabinene	4.07	968	0.01	[0.02]	1052	1.47*	Monoterpene
β-Pinene	4.13	971	0.01				Monoterpene
Myrcene	4.41	988	0.09	0.04	1110	1.93	Monoterpene
6-Methyl-5-hepten-2-one	4.49	993	1.60	2.46	1268	3.89*	Aliphatic ketone
α-Phellandrene	4.70	1005	0.05	0.03	1122	2.06	Monoterpene
Octanal	4.81	1011	0.07	0.07	1227	3.31	Aliphatic aldehyde
para-Cymene	5.06	1025	0.01	0.02	1199	2.97	Monoterpene
Limonene	5.09	1027	0.30	0.28	1134	2.20	Monoterpene
β-Phellandrene	5.13	1029	0.02	0.04	1140	2.27*	Monoterpene
1,8-Cineole	5.16	1030	0.01	[0.04]	1140	2.27*	Monoterp. ether
cis-β-Ocimene	5.28	1037	0.19	0.19	1179	2.73*	Monoterpene
trans-β-Ocimene	5.46	1047	0.13	0.12	1195	2.92	Monoterpene
γ-Terpinene	5.65	1058	0.01	[0.19]	1179	2.73*	Monoterpene
Bergamal	5.67	1059	0.02	0.01	1286	4.12	Aliphatic aldehyde
cis-Linalool oxide (fur.)	5.94	1073	0.01	0.01	1370	5.33	Monoterp. alcohol
4-Nonanone	6.00	1076	0.85	[2.46]	1268	3.89*	Aliphatic ketone
Terpinolene	6.12	1083	0.04	0.05	1218	3.19	Monoterpene
trans-Linalool oxide (fur.)	6.25	1090	0.04	0.22	1412	5.94*	Monoterp. alcohol
Rose furan	6.34	1095	0.09	0.07	1352	5.06	Monoterp. ether
Perillene	6.46	1100	0.09	0.09	1338	4.86	Monoterp. ether
Linalool	6.65	1107	1.14	1.10	1485	7.26	Monoterp. alcohol
Nonanal	6.70	1109	0.07	0.05	1341	4.91	Aliphatic aldehyde
Unknown (m/z = 81, 70 (71), 67 (57), 109 (47), 41 (43), 82 (42)... 137 (8), 152 (0))	7.42	1136	0.15				Oxygenated sesquiterp.
exo-Isocitral	7.63	1143	0.05	0.05	1428	6.19	Monoterp. aldehyde
trans-Chrysanthemal	7.72	1147	0.25	0.27	1424	6.13	Monoterp. aldehyde
Citronellal	7.86	1152	0.25	[0.22]	1412	5.94*	Monoterp. aldehyde
(Z)-Isocitral	8.15	1163	0.32	0.24	1468	6.95	Monoterp. aldehyde
Rosefuran epoxide	8.39	1172	0.20	1.97	1524	8.04*	Monoterp. ether
Borneol	8.56	1178	0.24	0.31	1611	10.62	Monoterp. alcohol
Terpinen-4-ol	8.68	1183	0.06	[1.97]	1524	8.04*	Monoterp. alcohol

(E)-Isocitral	8.76	1186	0.74	0.64	1495	7.46	Monoterp. aldehyde
β-Phellandren-8-ol	8.83	1189	0.11	0.13	1700	14.34	Monoterp. alcohol
α-Terpineol	9.36	1203	0.16	0.32	1620	10.88*	Monoterp. alcohol
Decanal	9.65	1210	0.16	0.12	1435	6.34	Aliphatic aldehyde
Nerol	10.66	1233	0.13	0.12	1723	15.35	Monoterp. alcohol
Neral	11.24	1246	29.91	30.54	1599	10.27	Monoterp. aldehyde
Piperitone	11.66	1255	0.12	[0.32]	1620	10.88*	Monoterp. ketone
Geraniol	12.17	1267	6.18	6.41	1777	18.34	Monoterp. alcohol
Geranial	12.86	1281	39.50	40.10	1652	12.22	Monoterp. aldehyde
Geranyl formate	13.68	1298	0.13	0.10	1631	11.30	Monoterp. ester
Cycloisositravene	16.63	1344	0.19	0.17	1420	6.05	Sesquiterpene
α-Ylangene	16.84	1347	0.13	0.16	1399	5.75	Sesquiterpene
α-Copaene	17.40	1355	0.04	0.04	1442	6.46	Sesquiterpene
Neryl acetate	17.82	1362	0.09	0.08	1658	12.49	Monoterp. ester
β-Bourbonene	17.90*	1363	0.14	0.04	1454	6.68	Sesquiterpene
Neric acid	17.90*	1363	[0.14]	0.15	2203	39.97	Monoterp. acid
β-Elemene	18.64	1374	0.15	[1.97]	1524	8.04*	Sesquiterpene
Geranyl acetate	19.23	1384	4.69	4.47	1687	13.74	Monoterp. ester
β-Caryophyllene	20.30*	1399	2.53	[1.97]	1524	8.04*	Sesquiterpene
Geranic acid	20.30*	1399	[2.53]	0.89	2251	41.23	Monoterp. acid
α-Humulene	23.03	1432	0.19	0.17	1585	9.83	Sesquiterpene
(E)-Isoeugenol	25.00	1456	0.33	0.34	2230	40.68	Phenylpropanoid
Germacrene D	25.22	1458	0.09	0.10	1626	11.09	Sesquiterpene
4-epi-Cubebol	27.37	1483	0.07	0.09	1803	19.83	Sesquiterp. alcohol
γ-Cadinene	28.30	1495	1.14	0.89	1669	12.95	Sesquiterpene
Cubebol	28.92*	1503	0.61	0.25	1855	23.08	Sesquiterp. alcohol
δ-Cadinene	28.92*	1503	[0.61]	0.43	1673	13.12*	Sesquiterpene
trans-γ-Bisabolene	29.39	1510	0.14	[0.43]	1673	13.12*	Sesquiterpene
α-Elemol	32.07	1546	0.08	0.06	1999	32.34	Sesquiterp. alcohol
Sesquirosefuran	32.38	1551	0.07	0.07	1830	21.41	Sesquiterp. ether
Geranyl butyrate	33.52*	1566	1.17	0.49	1847	22.55	Monoterp. ester
Caryophyllene oxide	33.52*	1566	[1.17]	0.31	1852	22.88	Sesquiterp. ether
Humulene epoxide II	35.22	1589	0.05	0.04	1897	26.00	Sesquiterp. ether
Geranylgeraniol isomer	51.38	2134	0.08	0.05	2566	47.74	Diterp. alcohol
Total identified			96.95%	97.00%			

*: 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 : Yellow liquid

Refractive index : 1.4840 ± 0.0003 (20 °C)

CONCLUSION

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

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 : 2018-10-02



