

IDENTIFIED COMPOUNDS

Identification	Column: BP5			Column: WAX			Molecular Class
	R.T.	R.I.	%	%	R.I.	R.T.	
$\alpha$ -Pinene	3.35	924	0.46	0.48	940	0.84	Monoterpene
Sabinene	4.07	968	0.30	0.30	1050	1.46	Monoterpene
$\beta$ -Pinene	4.13	971	0.04	0.04	1034	1.32	Monoterpene
Myrcene	4.42	989	1.76	1.81	1111	1.94	Monoterpene
$\alpha$ -Phellandrene	4.68	1004	0.04	0.02	1103	1.87	Monoterpene
Octanal	4.80	1011	0.32	0.31	1227	3.32*	Aliphatic aldehyde
Limonene	5.22*	1034	94.66	94.26	1148	2.37	Monoterpene
1,8-Cineole	5.22*	1034	[94.66]	0.28	1149	2.38	Monoterp. ether
para-Cymene	5.22*	1034	[94.66]	0.02	1203	2.99	Monoterpene
<i>trans</i> - $\beta$ -Ocimene	5.47	1048	0.09	0.06	1197	2.94	Monoterpene
$\gamma$ -Terpinene	5.65	1058	0.02	0.01	1183	2.78	Monoterpene
Terpinolene	6.12	1083	tr	[0.31]	1227	3.32*	Monoterpene
Octanol	6.17	1086	0.03	0.03	1495	7.46	Aliphatic alcohol
Linalool	6.64	1107	0.04	0.03	1485	7.27	Monoterp. alcohol
Nonanal	6.70	1109	0.02	0.02	1334	4.81	Aliphatic aldehyde
<i>cis</i> -Limonene oxide	7.24	1129	0.03	0.02	1367	5.28	Monoterp. ether
<i>trans</i> -Limonene oxide	7.36	1133	0.02	0.01	1379	5.47	Monoterp. ether
Citronellal	7.86	1152	0.02	0.03	1423	6.10	Monoterp. aldehyde
$\alpha$ -Terpineol	9.35	1203	0.08	0.08	1620	10.88	Monoterp. alcohol
Decanal	9.64	1210	0.28	0.34	1436	6.36*	Aliphatic aldehyde
<i>trans</i> -Piperitol	9.78	1213	0.03	0.02	1668	12.93	Monoterp. alcohol
Neral	10.99	1240	0.07	0.05	1593	10.09	Monoterp. aldehyde
Geranial	12.48	1273	0.17	0.17	1646	11.94	Monoterp. aldehyde
$\alpha$ -Copaene	17.38	1355	0.10	[0.34]	1436	6.36*	Sesquiterpene
$\beta$ -Cubebene	18.36	1370	0.08	0.05	1475	7.08	Sesquiterpene
$\beta$ -Elemene	18.61	1374	0.04	0.34	1522	7.99*	Sesquiterpene
Geranyl acetate	19.11	1382	0.07	0.06	1686	13.69	Monoterp. ester
$\beta$ -Caryophyllene	20.24	1398	0.33	[0.34]	1522	7.99*	Sesquiterpene
$\alpha$ -Humulene	23.01	1432	0.02	0.01	1587	9.90	Sesquiterpene
Germacrene D	25.20	1458	0.02	0.02	1629	11.23	Sesquiterpene
$\delta$ -Cadinene	28.90	1503	0.06	0.05	1673	13.12	Sesquiterpene
Nootkatone	42.81	1791	0.14	0.13	2349	43.47	Sesquiterp. ketone
Osthole	51.39	2135	0.02				Coumarin
7-Methoxy-8-(2-formyl-methylpropyl)-coumarin	53.48	2232	0.03	0.02	3423	61.30	Coumarin
Isoauraptene	53.65	2241	0.03	0.04	3454	61.73	Coumarin
Auraptene	61.12	2625	0.24	0.22	3793	66.19	Coumarin
<b>Total identified</b>			<b>99.66%</b>	<b>99.33%</b>			

\*: 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 :** Bright yellow liquid

**Refractive index :**  $1.4725 \pm 0.0003$  (20 °C)

*CONCLUSION*

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

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



