Date : 2026-07-28

Certificate of Analysis - GC Profiling

Sample Identification

Internal code : 26G03-PTH02
Customer Identification : Lemon Myrtle Oil - Australia - LP0111
Type : Essential Oil
Source : *Backhousia citriodora*
Customer : Plant Therapy

Checked and approved by:

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

Notes: This report may not be published, including online, without the written consent from Laboratoire PhytoChemia.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. The results only describe the samples that were submitted to the assays. The compliance status of the sample is provided to facilitate the reading of the report. The client remains ultimately responsible for reviewing the results presented within this report and to establish compliance of the tested batch against relevant quality criteria.

This report is an update of the version first issued on 2026-07-07 to make a modification in the sample identification section.

Méthode certifiée ISO 17025:2017 Certified method

Laboratoire PhytoChemia

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Gas Chromatographic Analysis

Method : PC-MAT-014 - Analysis of the composition of an essential oil or other volatile liquide by FAST GC-FID
ISO
Results : See analysis summary (next page)
Analyst : Jean-Christophe Fortin, M. Sc.
Date : 2026-07-07

Physicochemical data

Refractive index : 1.488 ± 0.0003 (20 °C)
Method : PC-MAT-016 - Measure of the refractive index of a liquid.
Analyst : Cindy Caron B. Sc.
Date : 2026-07-03

Conclusion

No adulterant, contaminant or diluent has been detected using this method.

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Analysis Summary - Consolidated Contents

New readers of similar reports are encouraged to read table footnotes at least once.

Identification	%	Class
2-Methyl-3-buten-2-ol	0.01	Aliphatic alcohol
Methyl 2-methylbutyrate	0.01	Aliphatic ester
(3*Z*)-Hexenol	0.05	Aliphatic alcohol
Hexanol	0.01	Aliphatic alcohol
2,6-Dimethyl-1,5-heptadiene	0.01	Normonoterpene
Unknown	0.02	Unknown
α-Pinene	tr	Monoterpene
β-Pinene	0.02	Monoterpene
Dehydro-1,8-cineole	0.14	Monoterpenic ether
6-Methyl-5-hepten-2-one	0.50	Aliphatic ketone
Myrcene	0.06	Monoterpene
Octan-3-ol	0.01	Aliphatic alcohol
α-Phellandrene	0.02	Monoterpene
para-Cymene	0.01	Monoterpene
1,8-Cineole	0.03	Monoterpenic ether
Limonene	0.17	Monoterpene
(*Z*)-β-Ocimene	0.01	Monoterpene
Seudenone?	0.01	Aliphatic ketone
(*E*)-β-Ocimene	0.02	Monoterpene
cis-Linalool oxide (fur.)	0.01	Monoterpenic alcohol
trans-Linalool oxide (fur.)	0.01	Monoterpenic alcohol
Terpinolene	0.01	Monoterpene
Rosefuran	0.01	Monoterpenic ether
Linalool	0.42	Monoterpenic alcohol
cis-Chrysanthemal?	0.05	Monoterpenic aldehyde
α-Cyclocitral	0.02	Monoterpenic aldehyde
trans-para-Mentha-2,8-dien-1-ol	0.04	Monoterpenic alcohol
cis-para-Menth-2-en-1-ol	0.01	Monoterpenic alcohol
cis-para-Mentha-2,8-dien-1-ol	0.05	Monoterpenic alcohol
trans-para-Menth-2-en-1-ol	0.03	Monoterpenic alcohol
Isopulegol	0.04	Monoterpenic alcohol
exo-Isocitral	0.20	Monoterpenic aldehyde
trans-Chrysanthemal	0.02	Monoterpenic aldehyde
Citronellal	0.65	Monoterpenic aldehyde
iso-Isopulegol	0.01	Monoterpenic alcohol
Borneol	0.05	Monoterpenic alcohol
α-Phellandren-8-ol	0.05	Monoterpenic alcohol
Isoneral	0.72	Monoterpenic aldehyde
Terpinen-4-ol	0.05	Monoterpenic alcohol
Unknown	0.38	Oxygenated monoterpene

Isogeranial	1.44	Monoterpenic aldehyde
para-Cymen-8-ol	0.02	Monoterpenic alcohol
α-Terpineol	0.23	Monoterpenic alcohol
β-Phellandren-8-ol	0.02	Monoterpenic alcohol
trans-Isopiperitenol	0.08	Monoterpenic alcohol
Unknown	0.23	Oxygenated monoterpene
cis-Isopiperitenol	0.05	Monoterpenic alcohol
Nerol	0.41	Monoterpenic alcohol
Citronellol	0.09	Monoterpenic alcohol
Neral	39.45	Monoterpenic aldehyde
Piperitone	0.10	Monoterpenic ketone
Geraniol	0.80	Monoterpenic alcohol
Geranial	48.52	Monoterpenic aldehyde
Unknown	0.04	Oxygenated monoterpene
Citronellic acid	0.03	Monoterpenic acid
Neric acid	0.08	Monoterpenic acid
Unknown	0.22	Unknown
α-Terpinyl acetate	0.02	Monoterpenic ester
Unknown	0.05	Unknown
Geranic acid	0.32	Aliphatic acid
Unknown	0.29	Unknown
α-Copaene	0.06	Sesquiterpene
Geranyl acetate	0.05	Monoterpenic ester
β-Elemene	0.10	Sesquiterpene
β-Caryophyllene	0.45	Sesquiterpene
trans-α-Bergamotene	0.01	Sesquiterpene
α-Humulene	0.05	Sesquiterpene
allo-Aromadendrene	0.04	Sesquiterpene
(*E*)-β-Farnesene	0.02	Sesquiterpene
Selina-4,11-diene	0.03	Sesquiterpene
Germacrene D	0.02	Sesquiterpene
Viridiflorene	0.06	Sesquiterpene
Bicyclogermacrene	0.04	Sesquiterpene
α-Muurolene	0.02	Sesquiterpene
γ-Cadinene	0.01	Sesquiterpene
(3*E*,6*E*)-α-Farnesene	0.01	Sesquiterpene
δ-Cadinene	0.04	Sesquiterpene
Spathulenol	0.04	Sesquiterpenic alcohol
Caryophyllene oxide	0.07	Sesquiterpenic ether
Caryophyllene oxide isomer	0.01	Sesquiterpenic ether
Humulene epoxide II	0.01	Sesquiterpenic ether
Isospathulenol	0.02	Sesquiterpenic alcohol
Unknown	0.03	Unknown
Unknown	0.09	Unknown
Unknown	0.02	Unknown

Unknown	0.07	Unknown
Unknown	0.05	Unknown
Unknown	0.04	Unknown
Consolidated total	**97.93**	

tr: The compound has been detected below 0.005% of the total signal

Note: no correction factor was applied

About "consolidated" data: The table above presents the breakdown of the sample volatile constituents after applying an algorithm to collapse data acquired from the multi-columns system of PhytoChemia into a single set of consolidated contents. In case of discrepancies between columns, the algorithm is set to prioritize data from the most standard DB-5 column, and smallest values so as to avoid overestimating individual content. This process is semi-automatic. Advanced users are invited to consult the "Full analysis data" table after the chromatograms in this report to access the full untreated data and perform their own calculations if needed.

Unknowns: Unknown compounds' mass spectral data is presented in the "Full analysis data" table. The occurrence of unknown compounds is to be expected in many samples, and does not denote particular problems unless noted otherwise in the conclusion.

Bracketed value ([xx]): A bracketed percent value indicate that two or more compound percentage could not be solved due to coelution.

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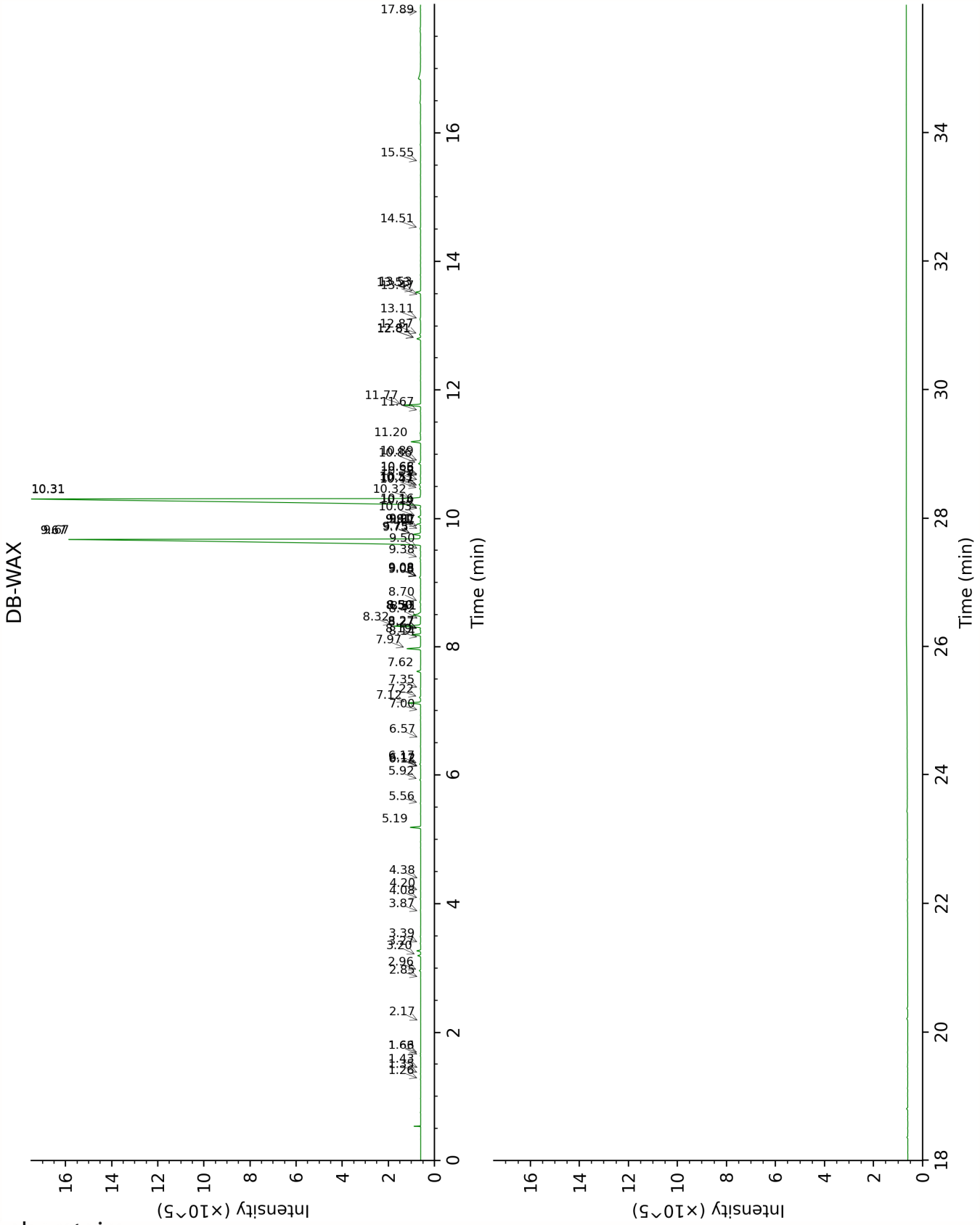
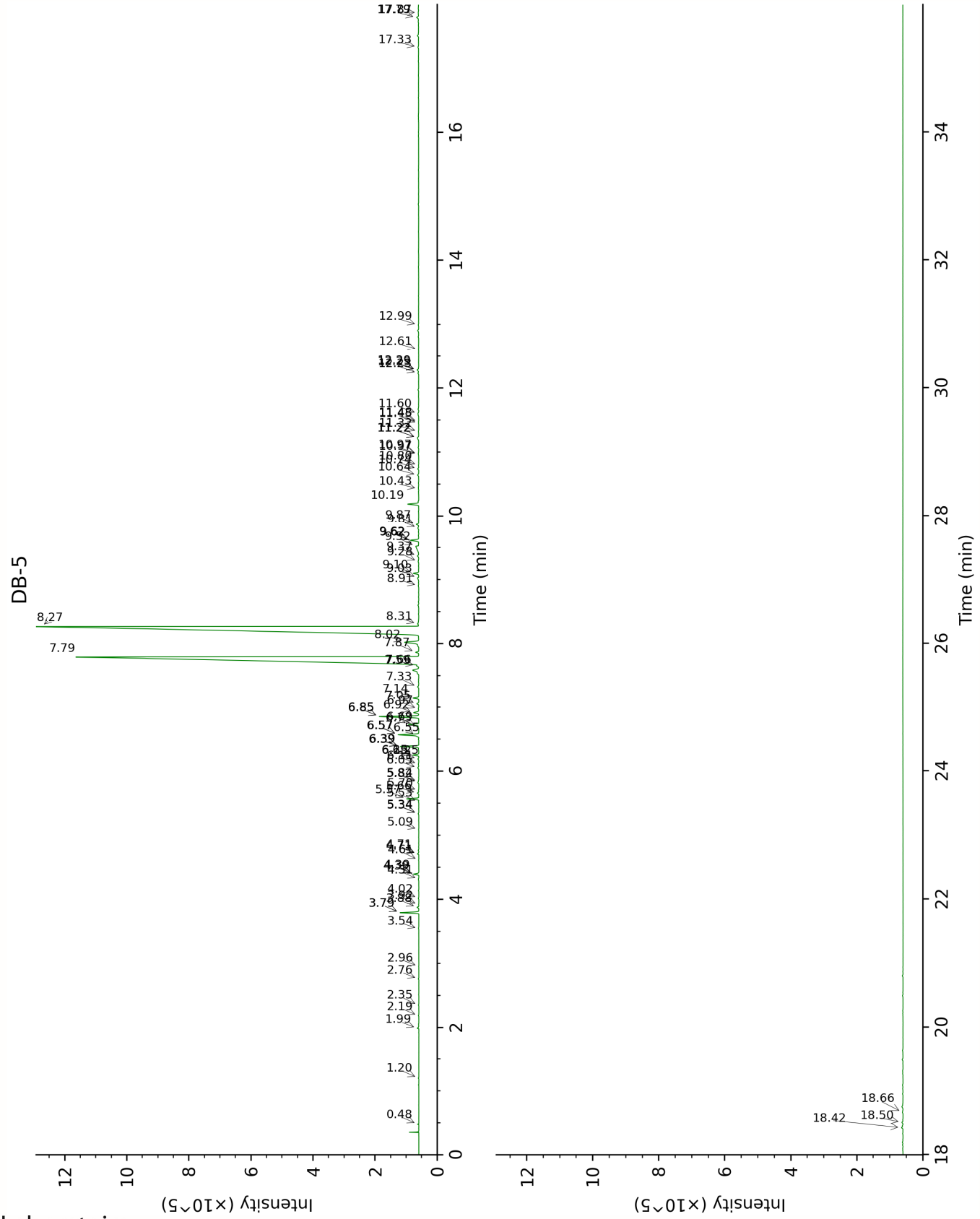

DB-WAX
Time (min)
Intensity (×10^5)
17.89
15.55
14.51
13.11
11.77
11.67
11.20
10.31
9.50
9.38
8.70
8.32
7.97
7.62
7.35
7.17
7.00
6.57
5.92
5.56
5.19
4.38
4.20
4.08
3.87
3.39
2.96
2.85
2.17
1.68
1.26


DB-5
Time (min)
Intensity (×10^5)
8.27
7.79
18.66
18.50
18.42

FULL ANALYSIS DATA

	Column DB-WAX			Column DB-5		
2-Methyl-3-buten-2-ol	1.63	1012.2	0.01	0.48	601.7	0.01
Methyl 2-methylbutyrate	1.35	978.0	0.01	1.20	774.3	0.01
(3*Z*)-Hexenol	5.92	1353.0	0.04	1.99	855.6	0.05
Hexanol	5.56	1327.2	0.02	2.18	872.4	0.01
2,6-Dimethyl-1,5-heptadiene	1.26	963.8	0.01	2.35	886.8	0.01
Unknown HYPE V [m/z 67, 109 (89), 124 (85), 41 (41), 81 (35), 55 (24)...]	1.66	1015.5	0.01	2.76	918.5	0.02
α-Pinene	1.43	990.1	0.01	2.96	931.6	tr
β-Pinene	2.17	1065.6	tr	3.54	971.3	0.02
Dehydro-1,8-cineole	3.20	1151.7	0.14	3.79*	988.3	[0.63]
6-Methyl-5-hepten-2-one	5.19	1301.0	0.50	3.79*	988.3	[0.63]
Myrcene	2.96	1133.6	0.06	3.88	994.0	0.06
Octan-3-ol	6.12*	1366.6	[0.01]	3.92	996.8	0.01
α-Phellandrene	2.85	1125.0	0.01	4.02	1003.5	0.02
para-Cymene	4.20	1226.8	0.02	4.31	1022.4	0.01
1,8-Cineole	3.39	1166.4	0.03	4.40*	1027.5	[0.20]
Limonene	3.27	1157.4	0.17	4.40*	1027.5	[0.20]
(*Z*)-β-Ocimene	3.87	1203.2	0.01	4.61	1041.3	0.01
Seudenone?	8.42	1535.3	0.01	4.71*	1047.5	[0.05]
(*E*)-β-Ocimene	4.08	1217.9	0.02	4.71*	1047.5	[0.05]
cis-Linalool oxide (fur.)	6.57	1398.4	0.01	5.09	1071.7	0.01
trans-Linalool oxide (fur.)	7.00	1430.0	0.01	5.34*	1087.3	[0.02]
Terpinolene	4.38	1239.5	0.01	5.34*	1087.3	[0.02]
Rosefuran	6.12*	1366.6	[0.01]	5.53	1099.3	0.01
Linalool	8.19	1518.0	0.42	5.57	1102.1	0.42
cis-Chrysanthemal?	6.17	1370.4	0.05	5.66	1107.8	0.05
α-Cyclocitral				5.70	1110.7	0.02
trans-para-Mentha-2,8-dien-1-ol	9.08*	1585.9	[0.07]	5.82	1118.3	0.04
cis-para-Menth-2-en-1-ol	8.27*	1524.1	[0.04]	5.84	1119.3	0.01
cis-para-Mentha-2,8-dien-1-ol	9.67*	1632.9	[39.45]	6.05	1133.2	0.05

trans-para-Menth-2-en-1-ol	9.08*	1585.9	[0.07]	6.11	1136.9	0.03
Isopulegol	8.27*	1524.1	[0.04]	6.19	1142.1	0.04
exo-Isocitral	7.62	1475.4	0.20	6.25*	1146.1	[0.22]
trans-Chrysanthemal	7.35	1455.7	0.02	6.25*	1146.1	[0.22]
Citronellal	7.12	1438.7	0.65	6.39*	1154.6	[0.66]
iso-Isopulegol	8.14	1514.0	0.01	6.39*	1154.6	[0.66]
Borneol	9.91*	1652.4	[0.22]	6.55	1165.1	0.05
α-Phellandren-8-ol	10.31*	1684.0	[48.60]	6.57*	1166.5	[0.77]
Isoneral	7.97	1501.5	0.72	6.57*	1166.5	[0.77]
Terpinen-4-ol	8.70	1556.6	0.04	6.69	1174.2	0.05
Unknown CYFL V [m/z 84, 83 (74), 137 (56), 41 (47), 93 (43), 108 (40)... 152 (2)]	9.75*	1639.1	[0.43]	6.73	1176.6	0.38
Isogeranial	8.32	1528.3	1.44	6.85*	1184.8	[1.49]
para-Cymen-8-ol	11.67	1798.7	0.02	6.85*	1184.8	[1.49]
α-Terpineol	9.91*	1652.4	[0.22]	6.92	1188.7	0.23
β-Phellandren-8-ol	10.89	1732.6	0.03	6.97	1192.5	0.02
trans-Isopiperitenol	10.53	1702.5	0.10	7.05	1197.7	0.08
Unknown CYFL VI [m/z 84, 41 (83), 83 (79), 91 (76), 93 (67), 119 (64), 137 (63), 109 (54), 108 (54)... 152 (4)]	10.32	1684.8	0.22	7.14	1203.4	0.23
cis-Isopiperitenol	10.47	1697.1	0.05	7.33	1215.7	0.05
Nerol	11.20	1758.3	0.52	7.59	1233.3	0.41
Citronellol	10.86	1729.8	0.11	7.66	1237.9	0.09
Neral	9.67*	1632.9	[39.45]	7.79	1247.1	39.45
Piperitone	10.03	1661.9	0.16	7.87	1252.1	0.10
Geraniol	11.76	1806.8	0.91	8.02	1262.6	0.80
Geranial	10.31*	1684.0	[48.60]	8.27	1279.1	48.52
Unknown CYFL VII [m/z 43, 69 (77), 41 (70), 109 (54)... 152 (6)]	13.11	1926.1	0.06	8.31	1282.0	0.04
Citronellic acid				8.91	1323.0	0.03
Neric acid				9.03	1331.6	0.08
Unknown CYFL VIII [m/z 82, 59 (44), 41 (43), 95 (31), 43	12.81*	1898.6	[0.22]	9.10	1336.7	0.22

(29), 81 (24)...]						
α-Terpinyl acetate	9.82	1644.5	0.03	9.28	1349.6	0.02
Unknown LICU I [m/z 110, 95 (98), 109 (40), 43 (35), 111 (32)... 153 (13)...]	13.53*	1964.7	[0.30]	9.37	1355.9	0.05
Geranic acid				9.52	1366.6	0.32
Unknown ZIOF XI [m/z 81, 59 (94), 41 (74), 85 (40), 43 (55)...]	13.53*	1964.7	[0.30]	9.62*	1373.4	[0.35]
α-Copaene	7.22	1445.8	0.06	9.62*	1373.4	[0.35]
Geranyl acetate	10.66	1713.4	0.02	9.81	1387.0	0.05
β-Elemene	8.51	1542.8	0.08	9.86	1391.1	0.10
β-Caryophyllene	8.50*	1541.4	[0.47]	10.19	1414.6	0.45
trans-α-Bergamotene	8.50*	1541.4	[0.47]	10.43	1432.5	0.01
α-Humulene	9.38	1609.6	0.05	10.64	1448.6	0.05
allo-Aromadendrene	9.08*	1585.9	[0.07]	10.74	1455.8	0.04
(*E*)-β-Farnesene	9.67*	1632.9	[39.45]	10.80	1460.2	0.02
Selina-4,11-diene	9.50	1619.5	0.03	10.97*	1473.1	[0.03]
Germacrene D	9.87	1648.7	0.02	10.97*	1473.1	[0.03]
Viridiflorene	9.75*	1639.1	[0.43]	11.22*	1492.1	[0.10]
Bicyclogermacrene	10.16	1672.1	0.04	11.22*	1492.1	[0.10]
α-Muurolene	10.14	1670.9	0.01	11.32	1499.6	0.02
γ-Cadinene	10.51	1700.6	0.02	11.45	1509.2	0.01
(3*E*,6*E*)-α-Farnesene	10.68	1715.1	0.01	11.48	1511.4	0.01
δ-Cadinene	10.59	1707.4	0.02	11.60	1521.3	0.04
Spathulenol	14.51	2057.9	0.04	12.23	1570.8	0.04
Caryophyllene oxide	12.87	1904.6	0.07	12.28*	1575.1	[0.08]
Caryophyllene oxide isomer	12.81*	1898.6	[0.22]	12.28*	1575.1	[0.08]
Humulene epoxide II	13.47	1959.8	0.01	12.61	1600.6	0.01
Isospathulenol	15.55	2160.8	0.02	12.99	1632.3	0.02
Unknown COCI LXIII [m/z 69, 41 (95), 55 (57), 109 (46), 95 (45), 67 (34)...]				17.33	2022.3	0.03
Unknown CYFL IX				17.79	2068.4	0.09

[m/z 93, 69 (95), 135 (76), 107 (53), 41 (53), 109 (50)... 235 (10)...]						
Unknown COCI XXXVI [m/z 69, 81 (56), 83 (52), 41 (39), 95 (42), 55 (27)...]	17.88	2407.6	0.01	17.87	2076.1	0.02
Unknown LICU II [m/z 69, 41 (38), 151 (36), 123 (34), 82 (24), 43 (23), 109 (21)...]				18.42	2131.9	0.07
Unknown COCI LII [m/z 69, 41 (75), 95 (53), 55 (47), 82 (40), 81 (38)...]				18.50	2140.5	0.05
Unknown COCI LIV [m/z 69, 41 (77), 95 (55), 55 (50), 82 (46), 109 (42)...]				18.66	2157.0	0.04
Total reported		97.20%			97.96%	

*: Two or more compounds are coeluting on this column
[xx]: Duplicate percentage due to coelutions, only the first one is taken into account in the consolidated total
†: Peaks apexes were resolved, but peaks overlapped and were summed for analysis
tr: The compound has been detected below 0.005% of total signal.

Note: no correction factor was applied
R.T.: Retention time (minutes)
R.I.: Retention index