

Date : 2024-05-27

CERTIFICATE OF ANALYSIS - GC PROFILING

SAMPLE IDENTIFICATION

Internal code : 24E10-PTH02

Customer Identification : Black Pepper - India - B40110R

Type : Essential Oil

Source : *Piper nigrum*

Customer : Plant Therapy

Checked and approved by:

Alexis St-Gelais, Ph. D., Chimiste 2013-174

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

Date : 2024-05-22

PHYSICOCHEMICAL DATA

Refractive index : 1.4836 ± 0.0003 (20 °C)

Method : PC-MAT-016 - Measure of the refractive index of a liquid.

Analyst : Cindy Caron B. Sc.

Date : 2024-05-13

CONCLUSION

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

ANALYSIS SUMMARY - CONSOLIDATED CONTENTS

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

Identification	%	Class
Isobutyral	tr	Aliphatic aldehyde
Isovaleral	0.01	Aliphatic aldehyde
2-Methylbutyral	tr	Aliphatic aldehyde
Toluene	tr	Simple phenolic
Hashishene	0.01	Monoterpene
Tricyclene	0.02	Monoterpene
α -Thujene	0.35	Monoterpene
α -Pinene	9.40	Monoterpene
α -Fenchene	0.02	Monoterpene
Camphene	0.19	Monoterpene
Thuja-2,4(10)-diene	0.01	Monoterpene
3,7,7-Trimethylcyclohepta-1,3,5-triene	0.02	Monoterpene
Sabinene	9.61	Monoterpene
β -Pinene	8.49	Monoterpene
6-Methyl-5-hepten-2-one	tr	Aliphatic ketone
Dehydro-1,8-cineole	tr	Monoterpenic ether
Myrcene	1.01	Monoterpene
2-Carene	0.01	Monoterpene
Pseudolimonene	0.03	Monoterpene
α -Phellandrene	1.34	Monoterpene
Δ^3 -Carene	8.50	Monoterpene
α -Terpinene	0.11	Monoterpene
<i>meta</i> -Cymene	0.02	Monoterpene
Carvomenthene	0.01	Aliphatic alcohol
<i>para</i> -Cymene	0.50	Monoterpene
β -Phellandrene	0.76	Monoterpene
Limonene	12.19	Monoterpene
(<i>Z</i>)- β -Ocimene	0.01	Monoterpene
(<i>E</i>)- β -Ocimene	0.06	Monoterpene
Unknown	0.03	Monoterpene
γ -Terpinene	0.21	Monoterpene
<i>cis</i> -Sabinene hydrate	0.06	Monoterpenic alcohol
Isoterpinolene	0.13	Monoterpene
<i>para</i> -Cresol	0.01	Simple phenolic
Terpinolene	0.38	Monoterpene
<i>para</i> -Cymenene	tr	Monoterpene
α -Pinene oxide	0.02	Monoterpenic ether
<i>trans</i> -Sabinene hydrate	0.05	Monoterpenic alcohol
Linalool	0.42	Monoterpenic alcohol
Verbenol analog?	0.01	Monoterpenic alcohol

Unknown	0.01	Unknown
Unknown	0.01	Oxygenated monoterpene
<i>trans-para</i> -Mentha-2,8-dien-1-ol	0.03	Monoterpenic alcohol
<i>cis</i> -Limonene oxide	0.01	Monoterpenic ether
<i>trans</i> -Pinocarveol	0.03	Monoterpenic alcohol
<i>trans-para</i> -Menth-2-en-1-ol	0.02	Monoterpenic alcohol
<i>trans</i> -Verbenol	0.02	Monoterpenic alcohol
<i>meta</i> -Mentha-4,6-dien-8-ol	0.02	Monoterpenic alcohol
Sabinaketone	tr	Normonoterpenic ketone
Pinocarvone	0.01	Monoterpenic ketone
α -Phellandren-8-ol	0.01	Monoterpenic alcohol
<i>cis</i> -Sabinol	0.01	Monoterpenic alcohol
Terpinen-4-ol	0.30	Monoterpenic alcohol
Cryptone	0.01	Normonoterpenic ketone
<i>meta</i> -Cymen-8-ol	0.01	Monoterpenic alcohol
<i>para</i> -Cymen-8-ol	0.01	Monoterpenic alcohol
Unknown	0.01	Unknown
Myrtenal	0.01	Monoterpenic aldehyde
α -Terpineol	0.08	Monoterpenic alcohol
Methyl salicylate	0.01	Phenolic ester
Myrtenol	0.02	Monoterpenic alcohol
<i>cis</i> - α -Phellandrene epoxide (iPr vs Me)	0.03	Monoterpenic ether
Unknown	0.03	Oxygenated monoterpene
Verbenone	0.01	Monoterpenic ketone
Car-2-en-4-one?	0.03	Monoterpenic ketone
<i>trans</i> -Carveol	0.02	Monoterpenic alcohol
<i>cis</i> -Carveol	0.01	Monoterpenic alcohol
Cuminal	0.01	Monoterpenic aldehyde
Carvone	0.01	Monoterpenic ketone
Car-3-en-2-one	0.01	Monoterpenic ketone
Unknown	0.02	Unknown
Methyl citronellate	0.01	Monoterpenic ester
<i>trans</i> -Ascaridole glycol	0.01	Monoterpenic alcohol
(7Z)-Undecen-2-one	0.01	Aliphatic ketone
Bornyl acetate	0.01	Monoterpenic ester
Unknown	0.01	Oxygenated monoterpene
Car-3-en-5-one	0.01	Monoterpenic ketone
<i>para</i> -Menth-5-en-1,2-diol isomer III	0.01	Monoterpenic alcohol
Methyl geranate	tr	Monoterpenic ester
Bicycloelemene	0.05	Sesquiterpene
δ -Elemene isomer	0.02	Sesquiterpene
δ -Elemene	2.80	Sesquiterpene
α -Cubebene	0.25	Sesquiterpene
Cyclosativene I	0.06	Sesquiterpene
Cyclosativene II	0.05	Sesquiterpene

α -Ylangene	0.03	Sesquiterpene
α -Copaene	2.71	Sesquiterpene
<i>cis</i> - β -Elemene	0.03	Sesquiterpene
β -Cubebene	0.20	Sesquiterpene
β -Elemene	0.96	Sesquiterpene
Isocaryophyllene	0.05	Sesquiterpene
α -Gurjunene	0.17	Sesquiterpene
<i>cis</i> - α -Bergamotene	0.03	Sesquiterpene
β -Caryophyllene	28.34	Sesquiterpene
β -Copaene	0.13	Sesquiterpene
γ -Elemene	0.02	Sesquiterpene
α -Guaiene	[0.26]	Sesquiterpene
<i>trans</i> - α -Bergamotene	[0.26]	Sesquiterpene
Unknown	0.02	Unknown
Unknown	0.01	Sesquiterpene
<i>trans</i> -Muuroala-3,5-diene	0.06	Sesquiterpene
α -Humulene	1.49	Sesquiterpene
β -Santalene	0.02	Sesquiterpene
allo-Aromadendrene	tr	Sesquiterpene
(<i>E</i>)- β -Farnesene	0.12	Sesquiterpene
γ -Gurjunene	0.03	Sesquiterpene
<i>trans</i> -Cadina-1(6),4-diene	0.05	Sesquiterpene
γ -Muurolene	0.11	Sesquiterpene
α -Amorphene	0.05	Sesquiterpene
Germacrene D	0.52	Sesquiterpene
ar-Curcumene	0.08	Sesquiterpene
β -Selinene	1.14	Sesquiterpene
<i>trans</i> -Muuroala-4(15),5-diene	0.08	Sesquiterpene
α -Selinene	0.82	Sesquiterpene
Viridiflorene	0.25	Sesquiterpene
epi-Cubebol	0.05	Sesquiterpenic alcohol
Germacrene A	0.09	Sesquiterpene
α -Muurolene	0.23	Sesquiterpene
γ -Cadinene	0.03	Sesquiterpene
β -Bisabolene	0.51	Sesquiterpene
Cubebol	0.07	Sesquiterpenic alcohol
(3 <i>E</i> ,6 <i>E</i>)- α -Farnesene	0.05	Sesquiterpene
<i>trans</i> -Calamenene	0.06	Sesquiterpene
Zonarene	0.03	Sesquiterpene
δ -Cadinene	1.08	Sesquiterpene
<i>trans</i> -Cadina-1,4-diene	0.06	Sesquiterpene
(<i>E</i>)- γ -Bisabolene	0.01	Sesquiterpene
α -Cadinene	0.01	Sesquiterpene
α -Calacorene	0.02	Sesquiterpene
(<i>E</i>)- α -Bisabolene	0.02	Sesquiterpene

Isocaryophyllene epoxide B	0.03	Sesquiterpenic ether
α -Elemol	0.01	Sesquiterpenic alcohol
Germacrene B	0.08	Sesquiterpene
(E)-Nerolidol	0.17	Sesquiterpenic alcohol
Spathulenol	0.01	Sesquiterpenic alcohol
Caryophyllene oxide isomer	0.07	Sesquiterpenic ether
Caryophyllene oxide	0.35	Sesquiterpenic ether
Globulol	0.01	Sesquiterpenic alcohol
Humulene epoxide I	0.02	Sesquiterpenic ether
Copaborneol	0.01	Sesquiterpenic alcohol
Humulene epoxide II	0.03	Sesquiterpenic ether
α -Corocalene	0.01	Sesquiterpene
Unknown	0.02	Oxygenated sesquiterpene
Alismol	0.13	Sesquiterpenic alcohol
Caryophylladienol II	0.02	Sesquiterpenic alcohol
τ -Cadinol	0.04	Sesquiterpenic alcohol
τ -Muurolol	0.02	Sesquiterpenic alcohol
α -Muurolol	0.07	Sesquiterpenic alcohol
α -Cadinol	0.01	Sesquiterpenic alcohol
Selin-11-en-4 α -ol	0.01	Sesquiterpenic alcohol
(3Z)-Caryophylla-3,8(13)-dien-5 β -ol	0.01	Sesquiterpenic alcohol
Dehydrojinkoh-eremol	0.01	Sesquiterpenic alcohol
Eudesma-4(15),7-dien-1 β -ol	tr	Sesquiterpenic alcohol
α -Bisabolol	0.01	Sesquiterpenic alcohol
<i>meta</i> -Camphorene	0.01	Diterpene
Consolidated total	99.37	

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

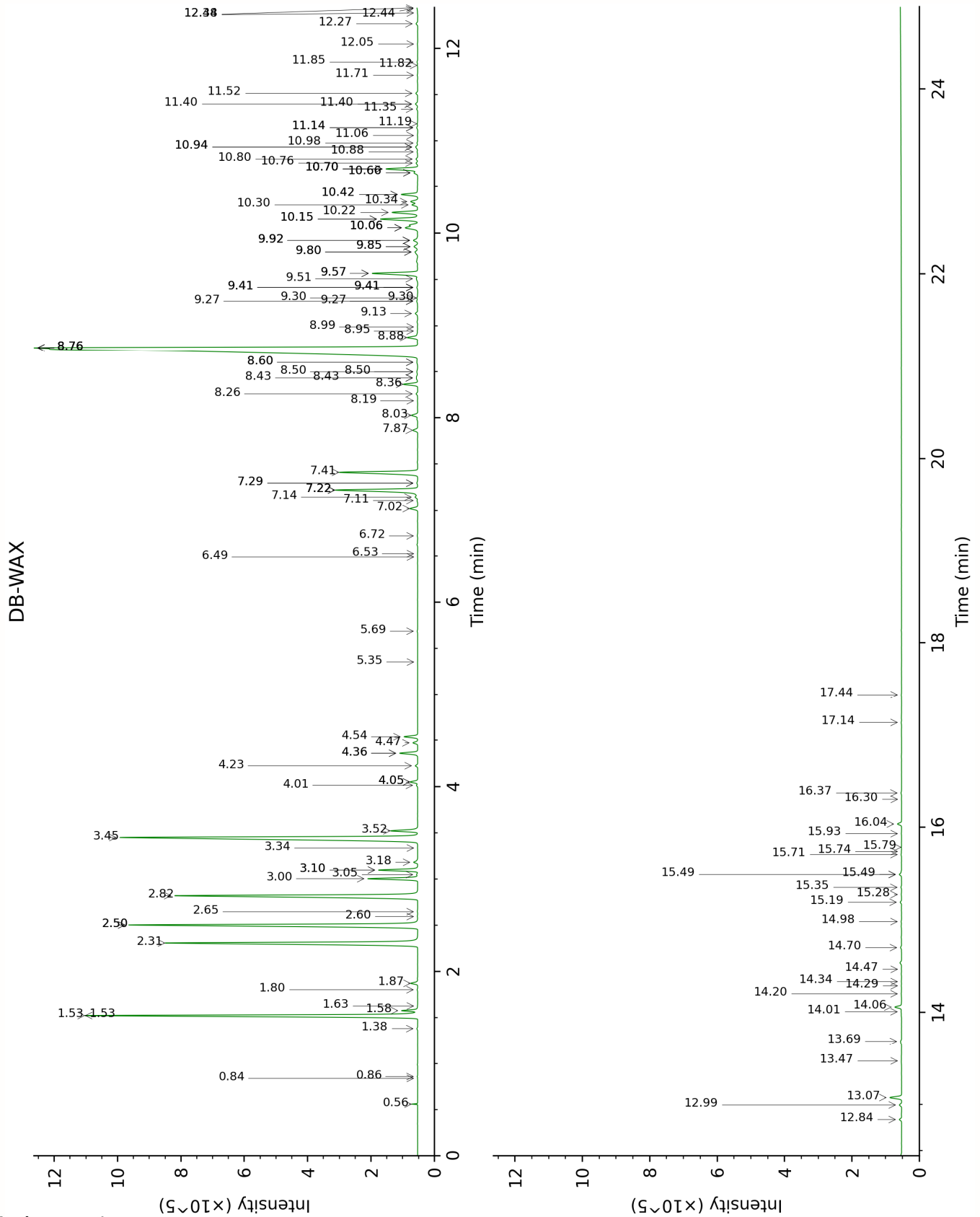
Note: no correction factor was applied

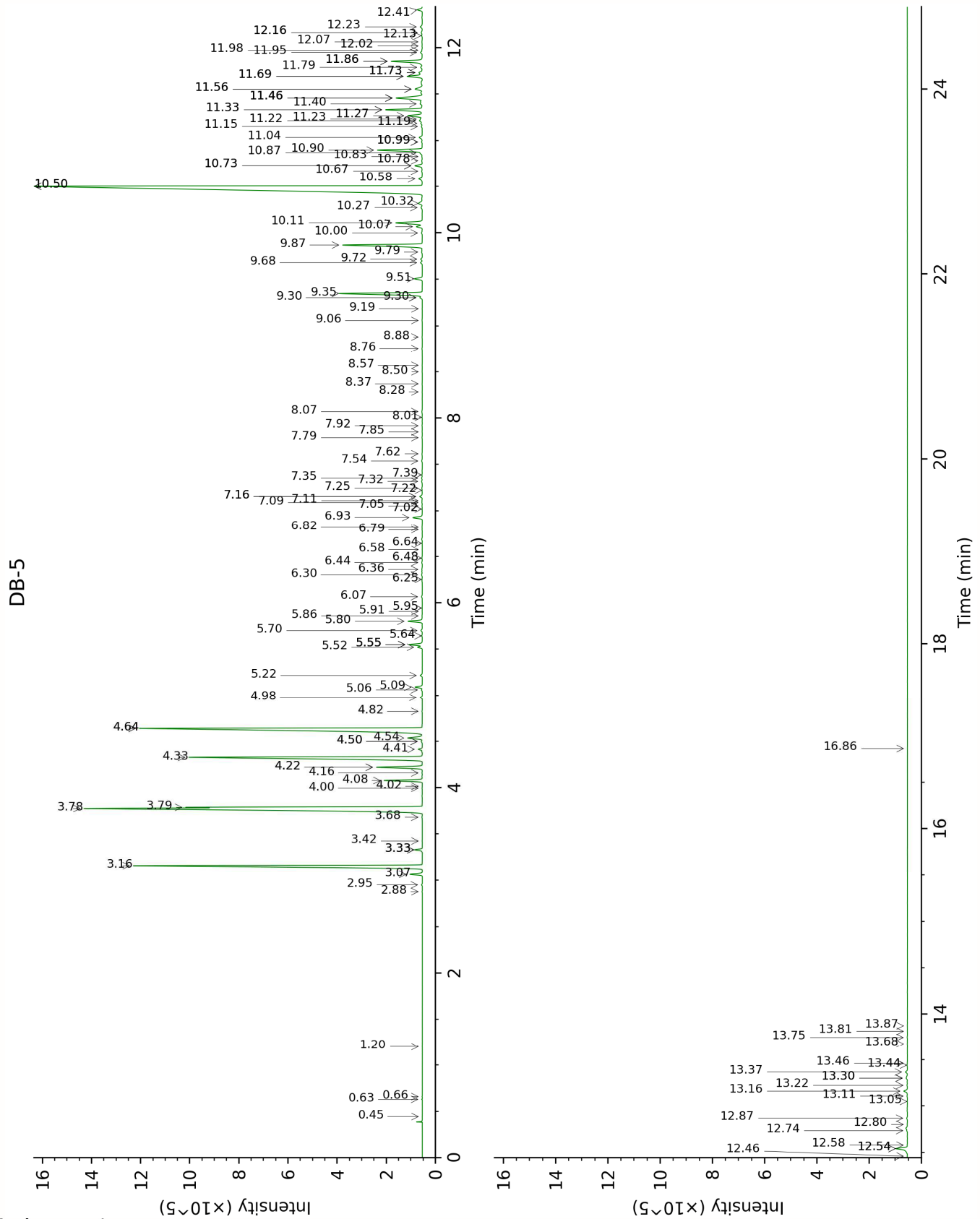
About "consolidated" data: The table above presents the breakdown of the sample volatile constituents after applying an algorithm to collapse data acquired from the multi-columns system of PhytoChemia into a single set of consolidated contents. In case of discrepancies between columns, the algorithm 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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FULL ANALYSIS DATA

Isobutyral	Column DB-WAX			Column DB-5		
	0.56	778.2	0.05	0.44	537.2	tr
Isovaleral	0.86	888.5	0.01	0.63	641.5	0.01
2-Methylbutyral	0.84	881.6	tr	0.66	651.9	tr
Toluene	1.63	1003.6	tr	1.20	759.5	tr
Hashishene	1.53*	993.7	[9.34]	2.88	914.4	0.01
Tricyclene	1.38	972.0	0.02	2.95	919.3	0.02
α -Thujene	1.58	998.8	0.39	3.07	926.8	0.35
α -Pinene	1.53*	993.7	[9.34]	3.16	932.9	9.40
α -Fenchene	1.80	1020.5	0.02	3.33*	944.3	[0.21]
Camphene	1.87	1027.2	0.19	3.33*	944.3	[0.21]
Thuja-2,4(10)-diene	2.50*	1087.3	[9.61]	3.42	950.6	0.01
3,7,7-Trimethylcyclohepta-1,3,5-triene	3.10*	1133.6	[1.03]	3.68	967.6	0.02
Sabinene	2.50*	1087.3	[9.61]	3.78*†	973.8	[14.45]
β -Pinene	2.31	1068.8	8.49	3.79*†	974.6	[3.65]
6-Methyl-5-hepten-2-one	5.35	1298.4	tr	4.00	988.3	tr
Dehydro-1,8-cineole	3.34	1151.6	0.01	4.02	989.7	tr
Myrcene	3.10*	1133.6	[1.03]	4.08	993.8	1.01
2-Carene	2.60	1095.5	0.01	4.16	999.2	0.01
Pseudolimonene	3.05	1129.9	0.03	4.22*	1003.2	[1.35]
α -Phellandrene	3.00	1126.5	1.34	4.22*	1003.2	[1.35]
Δ^3 -Carene	2.82	1112.6	8.48	4.33	1010.0	8.50
α -Terpinene	3.18	1139.9	0.13	4.41	1015.4	0.11
<i>meta</i> -Cymene	4.36*	1226.1	[0.53]	4.50*	1020.8	[0.04]
Carvomenthene	2.65	1099.5	0.01	4.50*	1020.8	[0.04]
<i>para</i> -Cymene	4.36*	1226.1	[0.53]	4.54	1023.1	0.50
β -Phellandrene	3.52	1165.6	0.76	4.64*	1029.6	[12.91]
Limonene	3.45	1160.1	12.19	4.64*	1029.6	[12.91]
(<i>Z</i>)- β -Ocimene	4.01	1201.8	0.03	4.82	1041.2	0.01
(<i>E</i>)- β -Ocimene	4.23	1216.6	0.07	4.98	1050.7	0.06
Unknown CUSE I [m/z 93, 91 (54), 92 (31), 77 (29), 79 (17), 43 (13), 41 (10), 136 (9)]	4.05*	1204.4	[0.22]	5.06	1056.1	0.03
γ -Terpinene	4.05*	1204.4	[0.22]	5.09	1057.9	0.21
<i>cis</i> -Sabinene hydrate	7.14	1427.6	0.09	5.22	1065.8	0.06
Isoterpinolene	4.47	1233.9	0.14	5.52	1085.0	0.13
<i>para</i> -Cresol	14.29	2021.1	0.01	5.55*	1086.8	[0.40]
Terpinolene	4.54	1238.5	0.38	5.55*	1086.8	[0.40]
<i>para</i> -Cymenene	6.52	1382.2	tr	5.55*	1086.8	[0.40]

α -Pinene oxide	5.69	1322.3	0.02	5.64	1092.7	0.02
<i>trans</i> -Sabinene hydrate	8.26	1510.7	0.05	5.70	1096.3	0.05
Linalool	8.36	1518.8	0.42	5.80	1102.5	0.42
Verbenol analog?	8.60*	1537.1	[0.05]	5.86	1106.2	0.01
Unknown BORI V [m/z 94, 59 (83), 43 (81), 95 (56), 109 (50), 79 (50), 91 (40)...]				5.91	1109.3	0.01
Unknown SASC I [m/z 41, 67 (75), 69 (59), 79 (55), 81 (44), 71 (41)... 150 (5)]	6.49	1379.7	tr	5.94	1111.6	0.01
<i>trans-para</i> -Mentha-2,8-dien-1-ol	9.27*	1588.3	[0.05]	6.07	1119.4	0.03
<i>cis</i> -Limonene oxide	6.72	1396.1	0.02	6.25	1131.3	0.01
<i>trans</i> -Pinocarveol	9.42*	1600.0	[0.03]	6.30	1134.5	0.03
<i>trans-para</i> -Menth-2-en-1-ol	9.27*	1588.3	[0.05]	6.36	1138.2	0.02
<i>trans</i> -Verbenol	9.80*	1630.7	[0.13]	6.44	1143.0	0.02
<i>meta</i> -Mentha-4,6-dien-8-ol	9.57*	1612.2	[1.53]	6.48	1146.1	0.02
Sabinaketone	8.99	1566.9	0.01	6.58	1152.0	tr
Pinocarvone	8.19	1505.0	0.01	6.64	1156.3	0.01
α -Phellandren-8-ol	10.42*	1680.4	[0.51]	6.79	1165.9	0.01
<i>cis</i> -Sabinol	11.14*	1741.2	[0.03]	6.82	1167.5	0.01
Terpinen-4-ol	8.88	1558.1	0.35	6.93	1174.5	0.30
Cryptone	9.42*	1600.0	[0.03]	7.02	1180.4	0.01
<i>meta</i> -Cymen-8-ol	11.82	1798.1	0.01	7.05	1182.5	0.01
<i>para</i> -Cymen-8-ol	11.85	1801.2	0.02	7.09	1184.8	0.01
Unknown UNKN VI [m/z 43, 135 (73), 59 (46), 93 (39), 91 (35), 81 (32)...]				7.11	1186.1	0.01
Myrtenal	8.95	1563.5	0.01	7.16*	1189.0	[0.09]
α -Terpineol	10.06*†	1651.7	[0.49]	7.16*	1189.0	[0.09]
Methyl salicylate	10.76	1709.0	0.05	7.22	1193.3	0.01
Myrtenol	11.19	1744.7	0.02	7.24	1194.8	0.02
<i>cis</i> - α -Phellandrene epoxide (iPr vs Me)	11.34	1758.0	0.03	7.32	1199.5	0.03
Unknown PINI IV [m/z 109, 91 (100), 81 (88), 94 (75), 119 (74), 96 (73), 41 (63)... 150 (2)]	11.14*	1741.2	[0.03]	7.35	1201.7	0.03

Verbenone	9.92*	1640.7	[0.16]	7.39	1203.9	0.01
Car-2-en-4-one?	9.80*	1630.7	[0.13]	7.54	1214.0	0.03
<i>trans</i> -Carveol	11.71	1788.7	0.01	7.62	1219.1	0.02
<i>cis</i> -Carveol	12.05	1818.3	0.02	7.79	1230.8	0.01
Cuminal	10.88	1719.3	0.02	7.85	1235.0	0.01
Carvone	10.30	1671.5	0.18	7.92	1239.4	0.01
Car-3-en-2-one	10.70*	1703.7	[1.02]	8.01	1245.5	0.01
Unknown CALU IV [m/z 43, 97 (69), 107 (46), 41 (28), 55 (21), 109 (20)...]	11.40*	1762.6	[0.09]	8.07	1249.7	0.02
Methyl citronellate	8.50*	1529.2	[0.05]	8.28	1263.9	0.01
<i>trans</i> -Ascaridole glycol	14.47	2038.0	0.01	8.37	1269.7	0.01
(7Z)-Undecen-2-one				8.50	1278.4	0.01
Bornyl acetate	8.50*	1529.2	[0.05]	8.57	1283.1	0.01
Unknown MISC IX [m/z 43, 93 (66), 91 (44), 41 (38), 69 (35)... 152? (1)]				8.76	1295.6	0.01
Car-3-en-5-one	12.38	1847.7	0.01	8.88	1303.9	0.01
<i>para</i> -Menth-5-en- 1,2-diol isomer III	15.49*	2137.1	[0.08]	9.06	1316.5	0.01
Methyl geranate	10.06*†	1651.7	[0.49]	9.19	1325.4	tr
Bicycloelemene	7.30*	1438.7	[0.03]	9.30*	1333.8	[0.07]
δ-Elemene isomer	7.11	1424.9	0.02	9.30*	1333.8	[0.07]
δ-Elemene	7.22*	1433.2	[2.94]	9.35	1337.0	2.80
α-Cubebene	7.02	1418.5	0.24	9.51	1348.1	0.25
Cyclosativene I	7.22*	1433.2	[2.94]	9.68	1360.3	0.06
Cyclosativene II	7.22*	1433.2	[2.94]	9.72	1363.0	0.05
α-Ylangene	7.30*	1438.7	[0.03]	9.80	1368.4	0.03
α-Copaene	7.41	1447.4	2.70	9.87	1373.7	2.71
<i>cis</i> -β-Elemene	8.60*	1537.1	[0.05]	10.00	1382.8	0.03
β-Cubebene	8.03	1492.9	0.20	10.07	1387.7	0.20
β-Elemene	8.76*	1549.5	[29.47]	10.11	1390.5	0.96
Isocaryophyllene	8.43*	1524.0	[0.09]	10.27	1402.1	0.05
α-Gurjunene	7.87	1480.9	0.16	10.32	1405.4	0.17
<i>cis</i> -α-Bergamotene	8.43*	1524.0	[0.09]	10.50*	1419.1	[28.38]
β-Caryophyllene	8.76*	1549.5	[29.47]	10.50*	1419.1	[28.38]
β-Copaene	8.76*	1549.5	[29.47]	10.58	1425.1	0.13
γ-Elemene	9.30*	1590.9	[0.03]	10.67	1431.6	0.02
α-Guaiene	8.76*	1549.5	[29.47]	10.73*	1436.1	[0.26]
<i>trans</i> -α- Bergamotene	8.76*	1549.5	[29.47]	10.73*	1436.1	[0.26]
Unknown ZIOF XIV	17.44	2336.1	0.01	10.78	1440.1	0.02

[m/z 41, 97 (78), 69 (77), 43 (71), 125 (67), 55 (56)... 168 (39)] Unknown ZIOF XV [m/z 139, 69 (60), 41 (51), 43 (47), 119 (41)... 204 (1)]				10.83	1443.5	0.01
<i>trans</i> -Muuroala-3,5-diene	9.14	1578.1	0.09	10.87	1446.5	0.06
α -Humulene	9.57*	1612.2	[1.53]	10.90	1448.6	1.49
β -Santalene	9.42*	1600.0	[0.03]	10.99*	1455.2	[0.02]
allo-Aromadendrene	9.30*	1590.9	[0.03]	10.99*	1455.2	[0.02]
(<i>E</i>)- β -Farnesene	9.85*	1635.3	[0.15]	11.04	1458.8	0.12
γ -Gurjunene	9.42*	1600.0	[0.03]	11.15	1467.6	0.03
<i>trans</i> -Cadina-1(6),4-diene	9.51	1607.6	0.06	11.19	1470.1	0.05
γ -Muurolene	9.92*	1640.7	[0.16]	11.22	1472.3	0.11
α -Amorphene	9.85*	1635.3	[0.15]	11.23	1473.5	0.05
Germacrene D	10.06*†	1651.7	[0.49]	11.27	1476.3	0.52
ar-Curcumene	10.94*	1723.6	[0.08]	11.33*	1481.1	[1.22]
β -Selinene	10.15*	1659.1	[1.22]	11.33*	1481.1	[1.22]
<i>trans</i> -Muuroala-4(15),5-diene	10.15*	1659.1	[1.22]	11.40	1485.8	0.08
α -Selinene	10.22	1664.9	0.82	11.46*	1490.5	[1.13]
Viridiflorene	9.92*	1640.7	[0.16]	11.46*	1490.5	[1.13]
epi-Cubebol	12.27	1837.4	0.05	11.46*	1490.5	[1.13]
Germacrene A	10.66*	1700.2	[0.12]	11.56*	1497.6	[0.33]
α -Muurolene	10.34	1674.3	0.23	11.56*	1497.6	[0.33]
γ -Cadinene	10.70*	1703.7	[1.02]	11.69*	1508.1	[0.53]
β -Bisabolene	10.42*	1680.4	[0.51]	11.69*	1508.1	[0.53]
Cubebol	12.84	1887.2	0.07	11.73*	1511.3	[0.13]
(3 <i>E</i> ,6 <i>E</i>)- α -Farnesene	10.80	1712.7	0.05	11.73*	1511.3	[0.13]
<i>trans</i> -Calamenene	11.52	1772.3	0.06	11.79	1515.7	0.06
Zonarene	10.66*	1700.2	[0.12]	11.86*	1520.8	[1.11]
δ -Cadinene	10.70*	1703.7	[1.02]	11.86*	1520.8	[1.11]
<i>trans</i> -Cadina-1,4-diene	10.94*	1723.6	[0.08]	11.95	1528.3	0.06
(<i>E</i>)- γ -Bisabolene	10.70*	1703.7	[1.02]	11.98	1530.3	0.01
α -Cadinene	11.06	1734.1	0.01	12.02	1533.8	0.01
α -Calacorene	12.44*	1852.6	[0.05]	12.07	1537.3	0.02
(<i>E</i>)- α -Bisabolene	10.98	1727.2	0.03	12.13	1542.6	0.02
Isocaryophyllene epoxide B	12.44*	1852.6	[0.05]	12.16*	1545.1	[0.04]
α -Elemol	14.34	2025.4	0.01	12.16*	1545.1	[0.04]
Germacrene B	11.40*	1762.6	[0.09]	12.23	1550.0	0.08

(E)-Nerolidol	14.06	1999.3	0.20	12.41	1564.5	0.17
Spathulenol	14.70	2060.2	0.03	12.46	1568.2	0.01
Caryophyllene oxide isomer	12.99	1901.6	0.07	12.54*	1574.7	[0.46]
Caryophyllene oxide	13.07	1908.9	0.35	12.54*	1574.7	[0.46]
Globulol	14.20	2012.9	0.01	12.58	1577.7	0.01
Humulene epoxide I	13.47	1945.1	0.01	12.74	1590.0	0.02
Copaborneol	15.28	2115.8	0.01	12.80	1595.2	0.01
Humulene epoxide II	13.69	1964.8	0.05	12.87	1600.5	0.03
α -Corocalene	14.01	1994.4	0.02	13.05	1615.3	0.01
Unknown MECA IV [m/z 161, 43 (74), 105 (57), 121 (45), 81 (43)... 204 (31)...]	14.98	2087.0	0.01	13.11	1620.0	0.02
Alismol	16.04	2191.0	0.12	13.16	1624.5	0.13
Caryophylladienol II	16.37	2225.2	0.02	13.22	1629.7	0.02
τ -Cadinol	15.19	2107.6	0.04	13.30*	1636.1	[0.06]
τ -Muurolol	15.35	2123.4	0.02	13.30*	1636.1	[0.06]
α -Muurolol	15.49*	2137.1	[0.08]	13.37	1641.6	0.07
α -Cadinol	15.79	2166.0	0.01	13.44	1647.7	0.01
Selin-11-en-4 α -ol	15.93	2180.4	0.01	13.46	1649.5	0.01
(3Z)-Caryophylla-3,8(13)-dien-5 β -ol	17.14	2303.9	0.01	13.68	1667.2	0.01
Dehydrojinkoh-eremol				13.75	1672.9	0.01
Eudesma-4(15),7-dien-1 β -ol	16.30	2218.2	tr	13.82	1678.5	tr
α -Bisabolol	15.74	2161.5	0.01	13.87	1683.4	0.01
<i>meta</i> -Camphorene	15.71	2158.2	0.02	16.86	1950.5	0.01
Total reported		99.38%			99.38%	

*: 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