

Date : June 18, 2019

CERTIFICATE OF ANALYSIS – GC PROFILING

SAMPLE IDENTIFICATION

Internal code : 19F05-PTH08-1-SCC

Customer identification : Lavender Infused Frankincense Carteri Organic - Somaliland/USA - LA310087R

Type : Essential oil

Source : Blend of oils

Customer : Plant Therapy

ANALYSIS

Method: PC-PA-014 - Analysis of the composition of an essential oil, or other volatile liquid, by FAST GC-FID (in French); identifications validated by GC-MS.

Analyst : Sylvain Mercier, M. Sc., Chimiste

Analysis date : June 12, 2019

Checked and approved by :

Alexis St-Gelais, M. Sc., chimiste 2013-174

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PHYSICOCHEMICAL DATA

Physical aspect: Light yellow liquid
Refractive index: 1.4645 ± 0.0003 (20 °C)

CONCLUSION

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

This sample features methyl decyl ether (synonym methoxydecane). PhytoChemia considers that several hypotheses can explain this sample's composition, such as a chemotype of *B. carteri* found in some regions or trees.

Another recent hypothesis is the growth of trees of *Boswellia occulta*, a very recently proposed species¹, within stands of *Boswellia carteri* in Somalia. This new species would exhibit a distinct chemistry². More research is warranted in the future to confirm these observations.

REFERENCES

- (1) Thulin, M.; DeCarlo, A.; Johnson, S. P. *Boswellia Occulta* (Burseraceae), a New Species of Frankincense Tree from Somalia (Somaliland). *Phytotaxa* **2019**, 394 (3), 219. <https://doi.org/10.11646/phytotaxa.394.3.3>.
- (2) Johnson, S.; DeCarlo, A.; Satyal, P.; Dosoky, N.; Sorensen, A.; Setzer, W. Organic Certification Is Not Enough: The Case of the Methoxydecane Frankincense. *Plants* **2019**, 8 (4), 88. <https://doi.org/10.3390/plants8040088>.

ANALYSIS SUMMARY – CONSOLIDATED CONTENTS

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

Identification	%	Classe
3-Methyl-2-butanone	tr	Aliphatic ketone
Unknown	0.01	Unknown
Toluene	0.08	Simple phenolic
Methyl hexyl ether	0.03	Aliphatic ether
Unknown	0.03	Alkene
Hexanol	0.01	Aliphatic alcohol
Unknown	0.03	Unknown
Hashishene	0.77	Monoterpene
Tricyclene	0.06	Monoterpene
α -Thujene	0.87	Monoterpene
α -Pinene	43.28	Monoterpene
Unknown	0.02	Monoterpene
Camphene	0.66	Monoterpene
α -Fenchene	0.01	Monoterpene
Thuja-2,4(10)-diene	0.56	Monoterpene
meta-Cymene	0.02	Monoterpene
Sabinene	4.43	Monoterpene
β -Pinene	4.16	Monoterpene
Pseudolimonene isomer	0.04	Monoterpene
6-Methyl-5-hepten-2-one	0.03	Aliphatic ketone
Dehydro-1,8-cineole	0.08	Monoterpenic ether
Myrcene	4.35	Monoterpene
α -Phellandrene	0.23	Monoterpene
Pseudolimonene	0.10	Monoterpene
Octanal	0.01	Aliphatic aldehyde
ortho-Methylanisole	0.07	Simple phenolic
Δ^3 -Carene	0.15	Monoterpene
α -Terpinene	0.03	Monoterpene
ortho-Cymene	0.04	Monoterpene
para-Cymene	2.36	Monoterpene
Limonene	5.07	Monoterpene
β -Phellandrene	0.49*	Monoterpene
1,8-Cineole	[0.49]*	Monoterpenic ether
Methyl octyl ether	2.67	Aliphatic ether
Cymene analog	0.08	Monoterpene
(Z)- β -Ocimene	0.40	Monoterpene
Unknown	0.02	Unknown
(E)- β -Ocimene	0.10	Monoterpene
γ -Terpinene	0.07	Monoterpene
cis-Sabinene hydrate	0.06	Monoterpenic alcohol
Unknown	0.02	Oxygenated monoterpene
cis-Linalool oxide (fur.)	0.01	Monoterpenic alcohol
Octanol	0.25	Aliphatic alcohol
Unknown	0.06	Oxygenated monoterpene
meta-Cymenene	0.16	Monoterpene
γ -Campholenal	0.02	Aliphatic alcohol
trans-Linalool oxide (fur.)	0.13	Monoterpenic alcohol

para-Cymenene	0.06	Monoterpene
Terpinolene	0.03	Monoterpene
α -Pinene oxide	0.09	Monoterpenic ether
<i>trans</i> -Sabinene hydrate	0.03	Monoterpenic alcohol
Perillene	0.05	Monoterpenic ether
Linalool	0.19	Monoterpenic alcohol
α -Thujone	0.10	Monoterpenic ketone
Unknown	0.03	Monoterpenic alcohol
β -Thujone	0.10	Monoterpenic ketone
Octen-3-yl acetate	0.03	Aliphatic ester
<i>cis</i> -para-Menth-2-en-1-ol	0.05	Monoterpenic alcohol
<i>trans</i> -para-Mentha-2,8-dien-1-ol	0.07	Monoterpenic alcohol
α -Campholenal	0.26	Monoterpenic aldehyde
<i>cis</i> -Limonene oxide	0.02	Monoterpenic ether
Octan-3-yl acetate	0.02	Aliphatic ester
Methyl nonyl ether	0.46	Aliphatic ether
<i>trans</i> -Pinocarveol	0.70	Monoterpenic alcohol
Camphor	0.02	Monoterpenic ketone
<i>trans</i> -Sabinol	0.15	Monoterpenic alcohol
<i>trans</i> -Verbenol	0.70	Monoterpenic alcohol
meta-Mentha-4,6-dien-8-ol	0.10	Monoterpenic alcohol
Sabinaketone	0.05	Normonoterpenic ketone
Unknown	0.08	Oxygenated monoterpene
Pinocarpone	0.11	Monoterpenic ketone
Borneol	0.16	Monoterpenic alcohol
α -Phellandren-8-ol	0.08	Monoterpenic alcohol
Umbellulone	0.04	Monoterpenic ketone
<i>cis</i> -Sabinol	0.02	Monoterpenic alcohol
Terpinen-4-ol	0.42	Monoterpenic alcohol
Cryptone	0.12	Normonoterpenic ketone
para-Cymen-8-ol	0.28	Monoterpenic alcohol
α -Terpineol	0.16	Monoterpenic alcohol
Myrtenal	0.27	Monoterpenic aldehyde
Myrtenol	0.22	Monoterpenic alcohol
α -Phellandrene epoxide	0.04	Monoterpenic ether
Verbenone	0.46	Monoterpenic ketone
<i>trans</i> -Piperitol	0.03	Monoterpenic alcohol
(4Z)-Decenyl methyl ether	0.03	Aliphatic ether
para-Cymen-9-ol	0.07	Monoterpenic alcohol
Decenyl methyl ether isomer 3	0.06	Aliphatic ether
Octyl acetate	1.81	Aliphatic ester
Decenyl methyl ether isomer 2	0.08	Aliphatic ether
<i>trans</i> -Carveol	0.17	Monoterpenic alcohol
Decenyl methyl ether isomer 1	0.15	Aliphatic ether
<i>cis</i> -Carveol	0.03	Monoterpenic alcohol
Cuminal	0.02	Monoterpenic aldehyde
Methyl decyl ether	8.32	Aliphatic ether
Carvone	0.03	Monoterpenic ketone
(2E)-Decenyl methyl ether	0.11	Aliphatic ether
Carvotanacetone	0.04	Monoterpenic ketone
Unknown	0.20	Unknown
Linalyl acetate	0.05	Monoterpenic ester

Geraniol	0.01	Monoterpenic alcohol
3,5-Dimethoxytoluene	0.04	Simple phenolic
Unknown	0.09	Oxygenated monoterpene
Unknown	0.08	Unknown
Decanol	0.25	Aliphatic alcohol
Bornyl acetate	0.30	Monoterpenic ester
para-Cymen-7-ol	0.03	Monoterpenic alcohol
2-Undecanone	0.03	Aliphatic ketone
Lavandulyl acetate	0.01	Monoterpenic ester
Perillyl alcohol	0.03	Monoterpenic alcohol
trans-Pinocarvyl acetate	0.01	Monoterpenic ester
Thymol	0.02	Monoterpenic alcohol
Carvacrol	0.04	Monoterpenic alcohol
Unknown	0.11	Unknown
Bicycloelemene	0.03	Sesquiterpene
α-Cubebene	0.14	Sesquiterpene
Cyclosativene I	0.04	Sesquiterpene
Cyclosativene II	0.05	Sesquiterpene
α-Ylangene	0.04	Sesquiterpene
Neryl acetate	0.04	Monoterpenic ester
α-Copaene	0.49	Sesquiterpene
β-Bourbonene	0.64	Sesquiterpene
1,5-diepi-β-Bourbonene	0.02	Sesquiterpene
Geranyl acetate	0.10	Monoterpenic ester
β-Cubebene	0.06	Sesquiterpene
β-Elemene	0.24	Sesquiterpene
Hexyl hexanoate	0.06	Aliphatic ester
α-Gurjunene	0.10	Sesquiterpene
β-Caryophyllene	0.69	Sesquiterpene
Decyl acetate	0.03	Aliphatic ester
β-Copaene	0.10	Sesquiterpene
trans-α-Bergamotene	0.07	Sesquiterpene
6,9-Guaiadiene	0.18	Sesquiterpene
α-Humulene	0.21	Sesquiterpene
allo-Aromadendrene	0.09	Sesquiterpene
(E)-β-Farnesene	0.02	Sesquiterpene
γ-Murolene	0.21	Sesquiterpene
Germacrene D	0.14	Sesquiterpene
β-Selinene	0.10	Sesquiterpene
epi-Cubebol	0.04	Sesquiterpenic alcohol
α-Selinene	0.08	Sesquiterpene
α-Murolene	0.10	Sesquiterpene
γ-Cadinene	0.18	Sesquiterpene
Cubebol	0.07	Sesquiterpenic alcohol
δ-Cadinene	0.23	Sesquiterpene
α-Cadinene	0.02	Sesquiterpene
α-Elemol	0.05	Sesquiterpenic alcohol
Isocaryophyllene epoxide B	0.03	Sesquiterpenic ether
(E)-Nerolidol	0.04	Sesquiterpenic alcohol
Caryophyllene oxide	0.26	Sesquiterpenic ether
Caryophyllene oxide isomer	0.07	Sesquiterpenic ether
Viridiflorol	0.32	Sesquiterpenic alcohol

Copaborneol	0.05	Sesquiterpenic alcohol
Humulene epoxide II	0.06	Sesquiterpenic ether
10-epi- γ -Eudesmol	0.17	Sesquiterpenic alcohol
1-epi-Cubenol	0.03	Sesquiterpenic alcohol
τ -Cadinol	0.08	Sesquiterpenic alcohol
Unknown	0.03	Sesquiterpenic alcohol
Unknown	0.01	Oxygenated sesquiterpene
α -Cadinol	0.02	Sesquiterpenic alcohol
<i>trans</i> -Calamene-10-ol	0.02	Sesquiterpenic alcohol
(3 <i>Z</i>)-Caryophylla-3,8(13)-dien-5 β -ol	0.02	Sesquiterpenic alcohol
Eudesma-4(15),7-dien-1 β -ol	0.04	Sesquiterpenic alcohol
α -Phellandrene dimer II	0.03	Diterpene
α -Phellandrene dimer III	0.01	Diterpene
Unknown	0.03	Oxygenated sesquiterpene
(3 <i>E</i>)-Cembrene A	0.12	Diterpene
Cembrene C	0.05	Diterpene
Verticilla-4(20),7,11-triene	0.01	Diterpene
Incensole	0.13	Diterpenic alcohol
Serratol	0.27	Diterpenic alcohol
Consolidated total	96.75%	

*: Individual compounds concentration could not be found due to overlapping coelutions on columns considered [xx]: Duplicate percentage due to coelutions, not taken into account in the consolidated total

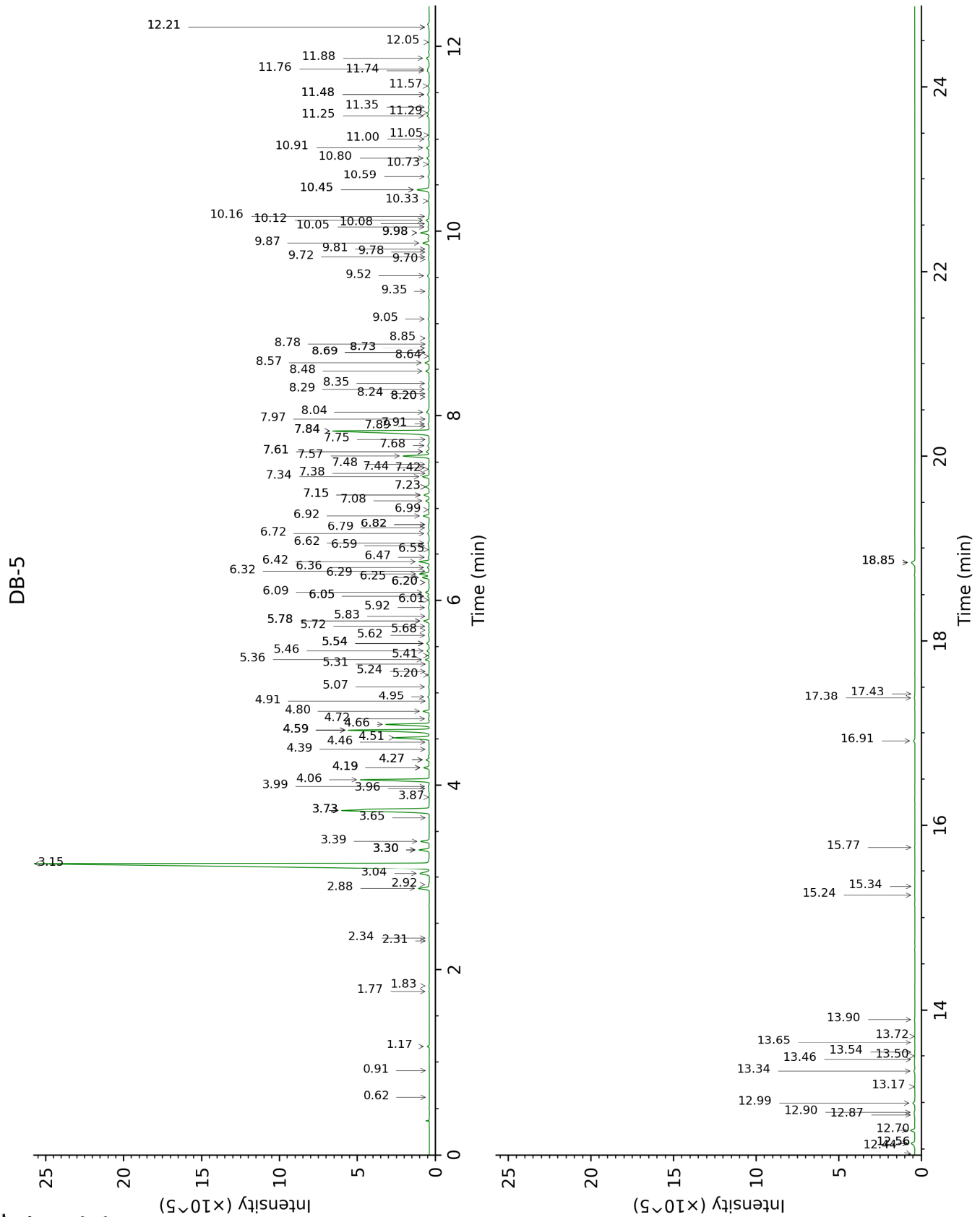
tr: The compound has been detected below 0.005% of total signal.

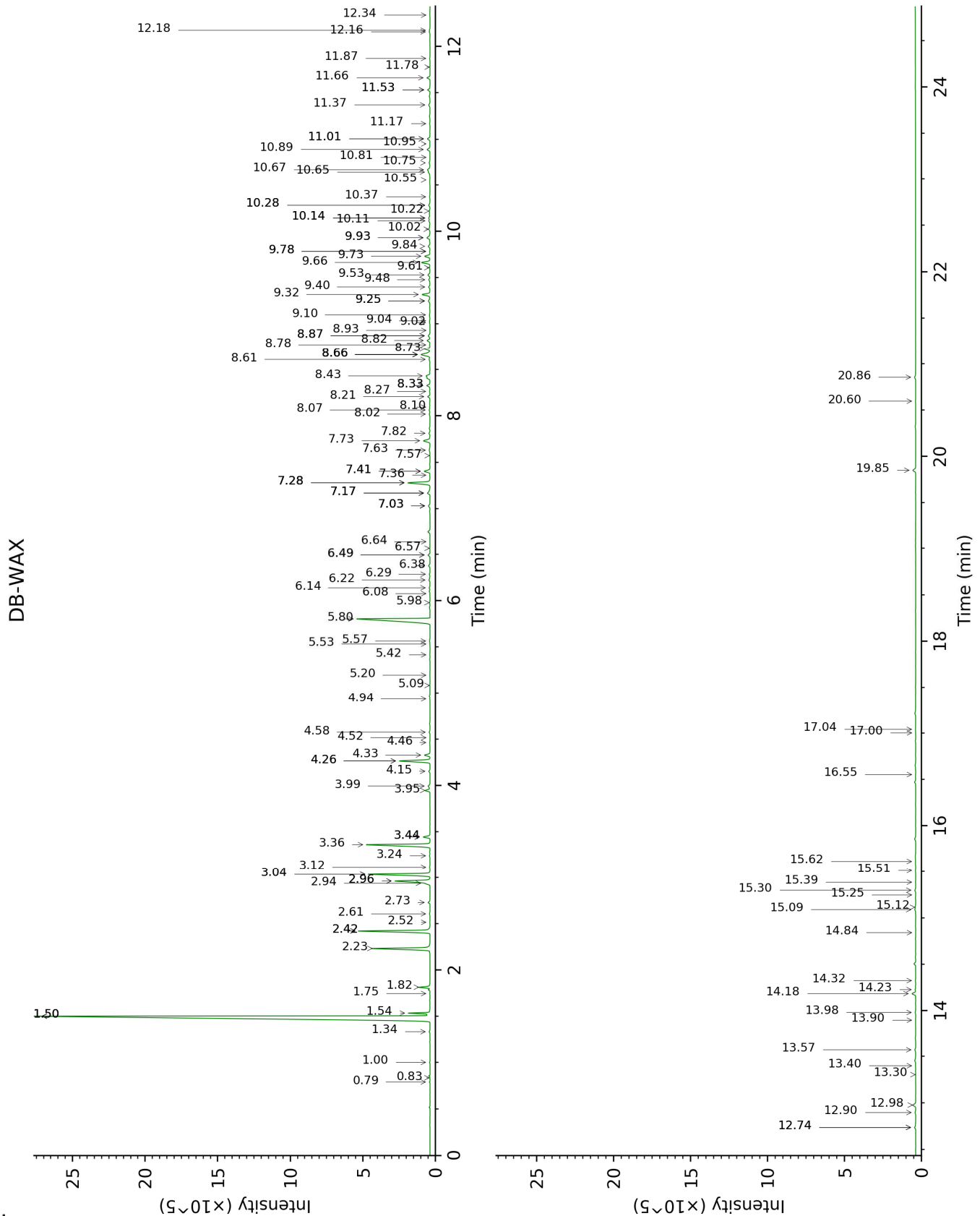
Note: no correction factor was applied

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.

This page was intentionally left blank. The following pages present the complete data of the analysis.





FULL ANALYSIS DATA

Identification	Column DB-5			Column DB-WAX		
	R.T	R.I	%	R.T	R.I	%
3-Methyl-2-butanone	0.62	645	tr	0.83	900	0.02
Unknown [m/z 93, 91 (70), 77 (48), 108 (42)]	0.91	724	0.01			
Toluene	1.17	760	0.08	1.50*†	1000	44.86
Methyl hexyl ether	1.77	827	0.03	1.00	925	0.02
Unknown [m/z 109, 67 (32), 81 (14), 41 (12), 124 (10)]	1.83	832	0.03	0.79	887	0.02
Hexanol	2.31	871	0.01	5.53	1316	0.02
Unknown [m/z 79, 78 (45), 91 (28), 77 (28), 41 (13), 80 (12), 107 (11)... 122 (1)]	2.34	874	0.03			
Hashishene	2.88	915	0.77	1.50*†	1000	[44.86]
Tricyclene	2.92	917	0.06	1.34	977	0.09
α-Thujene	3.04	925	0.87	1.54†	1004	[44.86]
α-Pinene	3.15	932	43.28	1.50*†	1000	[44.86]
Unknown [m/z 91, 92 (47), 65 (11)... 134 (1)]	3.30*	942	0.70	2.52	1098	0.02
Camphene	3.30*	942	[0.70]	1.82	1030	0.66
α-Fenchene	3.30*	942	[0.70]	1.75	1024	0.01
Thuja-2,4(10)-diene	3.39	948	0.56	2.42*	1089	4.99
meta-Cymene	3.65	965	0.02	3.04*	1138	4.36
Sabinene	3.73*	970	8.59	2.42*	1089	[4.99]
β-Pinene	3.73*	970	[8.59]	2.24	1070	4.16
Pseudolimonene isomer	3.87	980	0.04	2.61	1104	0.06
6-Methyl-5-hepten-2-one	3.96	986	0.03	5.20	1302	0.02
Dehydro-1,8-cineole	3.99	987	0.08	3.24	1154	0.05
Myrcene	4.06	992	4.35	3.04*	1138	[4.36]
α-Phellandrene	4.19*	1001	0.37	2.94	1130	0.23
Pseudolimonene	4.19*	1001	[0.37]	2.96*	1132	2.77
Octanal	4.19*	1001	[0.37]	4.52	1251	0.01
ortho-Methylanisole	4.27*†	1006	0.28	6.14	1360	0.07
Δ3-Carene	4.27*†	1006	[0.28]	2.73	1114	0.15
α-Terpinene	4.39	1013	0.03	3.12	1144	0.04
ortho-Cymene	4.46	1018	0.04	4.26*	1232	2.34
para-Cymene	4.51	1021	2.36	4.26*	1232	[2.34]
Limonene	4.59*	1026	5.56	3.36	1163	5.07

β-Phellandrene	4.59*	1026	[5.56]	3.44*	1170	0.50
1,8-Cineole	4.59*	1026	[5.56]	3.44*	1170	[0.50]
Methyl octyl ether	4.66	1030	2.67	2.96*	1132	[2.77]
Cymene analog	4.72	1034	0.08	4.58	1256	0.08
(Z)-β-Ocimene	4.80	1039	0.40	3.95	1209	0.36
Unknown [m/z 109, 43 (57), 91 (28), 67 (25), 93 (24), 95 (22), 77 (21), 137 (21), 41 (17), 79 (14)...]	4.91	1046	0.02			
(E)-β-Ocimene	4.95	1048	0.10	4.15	1224	0.10
γ-Terpinene	5.07	1056	0.07	3.99	1212	0.19
cis-Sabinene hydrate	5.20	1064	0.06	7.03*	1426	0.16
Unknown [m/z 79, 93 (60), 43 (40), 94 (35), 137 (33), 77 (26), 91 (20), 152 (18)]	5.24	1066	0.02	4.94	1282	0.03
cis-Linalool oxide (fur.)	5.31	1071	0.01	6.64	1396	0.01
Octanol	5.36	1074	0.25	8.33*	1524	0.30
Unknown [m/z 43, 94 (63), 109 (61), 59 (55), 79 (51)...152 (2)]	5.41	1077	0.06	7.40*	1454	0.53
meta-Cymenene	5.46	1080	0.16	6.38	1378	0.12
γ-Campholenal	5.54*	1085	0.23	5.09	1294	0.02
trans-Linalool oxide (fur.)	5.54*	1085	[0.23]	7.03*	1426	[0.16]
para-Cymenene	5.54*	1085	[0.23]	6.49*	1386	0.16
Terpinolene	5.54*	1085	[0.23]	4.46	1247	0.03
α-Pinene oxide	5.62	1090	0.09	5.57	1319	0.06
trans-Sabinene hydrate	5.68	1094	0.03	8.10	1506	0.03
Perillene	5.72	1097	0.05	6.29	1371	0.06
Linalool	5.78*	1100	0.43	8.21	1515	0.19
α-Thujone	5.78*	1100	[0.43]	6.22	1366	0.10
Unknown [m/z 119, 109 (94), 43 (61), 95 (56), 91 (48), 77 (32), 152 (32), 137 (31), 134 (24)]	5.83	1104	0.03	8.66*	1550	1.04
β-Thujone	5.92	1110	0.10	6.49*	1386	[0.16]
Octen-3-yl acetate	6.01	1115	0.03	5.98	1349	0.04
cis-para-Mentha-2-en-1-ol	6.05*	1118	0.12	8.27	1519	0.05
trans-para-Mentha-2,8-dien-1-ol	6.05*	1118	[0.12]	9.10	1584	0.07

α -Campholenal	6.09	1120	0.26	7.17*	1436	0.32
<i>cis</i> -Limonene oxide	6.20*	1127	0.05	6.57	1391	0.02
Octan-3-yl acetate	6.20*	1127	[0.05]	5.42	1308	0.02
Methyl nonyl ether	6.25	1130	0.46	4.33	1237	0.44
<i>trans</i> -Pinocarveol	6.29	1133	0.70	9.32	1602	0.72
Camphor	6.32	1135	0.02	7.36	1451	0.03
<i>trans</i> -Sabinol	6.36	1138	0.15	10.02	1659	0.14
<i>trans</i> -Verbenol	6.42	1142	0.70	9.66	1630	0.74
meta-Mentha-4,6-dien-8-ol	6.47	1145	0.10	9.48	1615	0.15
Sabinaketone	6.55	1150	0.05	8.87*	1567	0.19
Unknown [m/z 97, 81 (96), 109 (80), 43 (53), 53 (40), 41 (36), 56 (29), 95 (25)... 152 (1)]	6.59	1153	0.08	7.63	1471	0.11
Pinocarvone	6.62	1154	0.11	8.07	1504	0.08
Borneol	6.72	1161	0.16	9.93*	1652	0.34
α -Phellandren-8-ol	6.78	1165	0.08	10.28*	1680	0.15
Umbellulone	6.82*	1167	0.07	9.04	1579	0.04
<i>cis</i> -Sabinol	6.82*	1167	[0.07]	10.95	1736	0.02
Terpinen-4-ol	6.92	1174	0.42	8.73	1555	0.43
Cryptone	6.99	1178	0.12	9.40	1608	0.13
para-Cymen-8-ol	7.08	1184	0.28	11.66	1797	0.24
α -Terpineol	7.15*	1188	0.43	9.93*	1652	[0.34]
Myrtenal	7.15*	1188	[0.43]	8.82	1563	0.27
Myrtenol	7.23*	1194	0.27	11.01*	1741	0.24
α -Phellandrene epoxide	7.23*	1194	[0.27]	11.17	1755	0.04
Verbenone	7.34	1201	0.46	9.73	1635	0.46
<i>trans</i> -Piperitol	7.38	1204	0.03	10.56	1703	0.03
(4Z)-Decenyl methyl ether	7.42	1207	0.03	6.08	1356	0.03
para-Cymen-9-ol	7.44	1208	0.07	12.16	1841	0.07
Decenyl methyl ether isomer 3	7.48	1210	0.06			
Octyl acetate	7.57	1216	1.81	7.28*	1445	1.87
Decenyl methyl ether isomer 2	7.61*	1220	0.25			
<i>trans</i> -Carveol	7.61*	1220	[0.25]	11.53*	1786	0.21
Decenyl methyl ether isomer 1	7.68	1224	0.15			
<i>cis</i> -Carveol	7.74	1228	0.03	11.87	1816	0.03
Cuminal	7.84*	1235	8.35	10.81	1724	0.02
Methyl decyl ether	7.84*	1235	[8.35]	5.80	1336	8.32
Carvone	7.89	1238	0.03	10.14*	1669	0.13
(2E)-Decenyl methyl ether	7.91	1240	0.11			
Carvotanacetone	7.97	1244	0.04	9.61	1625	0.06
Unknown [m/z 43,	8.04	1249	0.20	11.37	1772	0.14

97 (69), 107 (46), 41 (28), 55 (21), 109 (20)...						
Linalyl acetate	8.20*	1260	0.07	8.33*	1524	[0.30]
Geraniol	8.20*	1260	[0.07]	11.78	1807	0.01
3,5-Dimethoxytoluene	8.24	1262	0.04	11.53*	1786	[0.21]
Unknown [m/z 109, 41 (22), 81 (14), 43 (11)... 152 (4)]	8.29	1266	0.09			
Unknown [m/z 83, 43 (68), 69 (67), 41 (39), 82 (38), 98 (37)...	8.35	1270	0.08			
Decanol	8.48	1279	0.25	10.89	1731	0.28
Bornyl acetate	8.57	1285	0.30	8.43	1532	0.34
para-Cymen-7-ol	8.64	1290	0.03	14.32	2040	0.04
2-Undecanone	8.69*	1293	0.04	8.78	1559	0.03
Lavandulyl acetate	8.69*	1293	[0.04]	8.93	1571	0.01
Perillyl alcohol	8.74*	1296	0.04	13.40	1953	0.03
<i>trans</i> -Pinocarvyl acetate	8.74*	1296	[0.04]	9.25*	1596	0.21
Thymol	8.78	1300	0.02	15.25	2130	0.01
Carvacrol	8.85	1304	0.04	15.51	2157	0.04
Unknown [m/z 111, 126 (93), 43 (90), 71 (60)...	9.05	1314	0.11	15.30	2135	0.08
Bicycloelemene	9.35	1335	0.03	7.28*	1445	[1.87]
α -Cubebene	9.52	1346	0.14	7.03*	1426	[0.16]
Cyclosativene I	9.70	1359	0.04	7.17*	1436	[0.32]
Cyclosativene II	9.72	1361	0.05	7.17*	1436	[0.32]
α -Ylangene	9.78	1364	0.04	7.28*	1445	[1.87]
Neryl acetate	9.81	1367	0.04	10.37	1688	0.05
α -Copaene	9.87	1371	0.49	7.40*	1454	[0.53]
β -Bourbonene	9.98*	1379	0.70	7.73	1479	0.64
1,5-diepi- β - Bourbonene	9.98*	1379	[0.70]	7.57	1467	0.02
Geranyl acetate	10.05	1383	0.10	10.75	1719	0.11
β -Cubebene	10.08	1386	0.06	8.02	1500	0.08
β -Elemene	10.12	1388	0.24	8.66*	1550	[1.04]
Hexyl hexanoate	10.16	1391	0.06	9.02	1578	0.04
α -Gurjunene	10.33	1403	0.10	7.82	1485	0.09
β -Caryophyllene	10.45*	1412	0.99	8.66*	1550	[1.04]
Decyl acetate	10.45*	1412	[0.99]	9.78*	1640	0.05
β -Copaene	10.59	1423	0.10	8.61	1546	0.11
<i>trans</i> - α - Bergamotene	10.73	1433	0.07	8.66*	1550	[1.04]
6,9-Guaiadiene	10.80	1438	0.18	8.87*	1567	[0.19]
α -Humulene	10.91	1446	0.21	9.53	1619	0.22
allo- Aromadendrene	11.00	1453	0.09	9.25*	1596	[0.21]

(E)-β-Farnesene	11.05	1456	0.02	9.78*	1640	[0.05]
γ-Murolene	11.25	1472	0.21	9.84	1644	0.18
Germacrene D	11.28	1474	0.14	10.11	1666	0.12
β-Selinene	11.35	1479	0.10	10.14*	1669	[0.13]
epi-Cubebol	11.48*	1489	0.18	12.18	1842	0.04
α-Selinene	11.48*	1489	[0.18]	10.22	1675	0.08
α-Murolene	11.58	1496	0.10	10.28*	1680	[0.15]
γ-Cadinene	11.74†	1508	0.28	10.65	1710	0.18
Cubebol	11.76†	1510	[0.28]	12.74*	1892	0.10
δ-Cadinene	11.88	1519	0.23	10.67	1713	0.28
α-Cadinene	12.05	1532	0.02	11.01*	1741	[0.24]
α-Elemol	12.21*	1545	0.06	14.23	2031	0.05
Isocaryophyllene epoxide B	12.21*	1545	[0.06]	12.34	1857	0.03
(E)-Nerolidol	12.44	1563	0.04	13.98	2007	0.05
Caryophyllene oxide	12.56*	1572	0.38	12.98	1914	0.26
Caryophyllene oxide isomer	12.56*	1572	[0.38]	12.90	1907	0.07
Viridiflorol	12.70	1583	0.32	14.18	2027	0.32
Copaborneol	12.87	1596	0.05	15.12	2117	0.05
Humulene epoxide II	12.90	1598	0.06	13.57	1969	0.10
10-epi-γ-Eudesmol	13.00	1606	0.17			
1-epi-Cubebol	13.17	1621	0.03	13.90	1999	0.03
τ-Cadinol	13.34	1635	0.08	15.09	2114	0.09
Unknown cadinol analog II [m/z 95, 121 (73), 43 (57), 79 (43), 161 (43), 109 (40)... 204 (35), 222 (2)]	13.46	1645	0.03	15.39	2144	0.02
Unknown [m/z 161, 59 (67), 95 (45), 93 (40), 105 (40), 149 (39), 81 (39), 43 (38), 204 (37)... 220 (5)]	13.50	1648	0.01	14.84	2090	0.01
α-Cadinol	13.54	1651	0.02	15.62	2167	0.02
trans-Calamenen-10-ol	13.65	1660	0.02	17.00	2310	0.01
(3Z)-Caryophylla-3,8(13)-dien-5β-ol	13.72	1666	0.02	17.04	2314	0.03
Eudesma-4(15),7-dien-1β-ol	13.90	1681	0.04			
α-Phellandrene dimer II	15.24	1795	0.03	12.74*	1892	[0.10]
α-Phellandrene dimer III	15.34	1804	0.01	13.30	1944	0.01
Unknown [m/z 43, 107 (97), 81 (83),	15.76	1842	0.03	20.60	2717	0.02

121 (77), 123 (74), 93 (73)... 220 (26)...						
(3E)-Cembrene A	16.92	1948	0.12			
Cembrene C	17.38	1992	0.05			
Verticilla- 4(20),7,11-triene	17.43	1997	0.01	16.56	2263	0.01
Incensole	18.85*	2138	0.36	20.86	2749	0.13
Serratol	18.85*	2138	[0.36]	19.85	2628	0.27
Total identified		96.60%			95.14%	
Total reported		97.43%			95.60%	

*: Two or more compounds are coeluting on this column

[xx]: Duplicate percentage due to coelutions, not 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