

Date : January 11, 2023

CERTIFICATE OF ANALYSIS – GC PROFILING

SAMPLE IDENTIFICATION

Internal code : 23A04-PTH04

Customer identification : Frankincense Carterii ORGANIC - Somaliland - F00109R

Type : Essential oil

Source : *Boswellia carteri*

Customer : Plant Therapy

ANALYSIS

Method: PC-MAT-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 : Amélie Simard, Analyste

Analysis date : January 09, 2023

Checked and approved by :

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

Notes: This report may not be published, including online, without the written consent from Laboratoire PhytoChemia.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.

PHYSICOCHEMICAL DATA

Physical aspect: Faintly yellow liquid

Refractive index: 1.4746 ± 0.0003 (20 °C; method PC-MAT-016)

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
2-Methyl-3-buten-2-ol	0.01	Aliphatic alcohol
(E)-2-Methyl-1,3-pentadiene	0.01	Alkene
3-Methyl-2-butanone	0.01	Aliphatic ketone
Unknown	tr	Unknown
Toluene	0.08	Simple phenolic
Prenal	tr	Aliphatic aldehyde
Unknown	0.02	Alkene
Unknown	0.01	Unknown
Unknown	0.02	Unknown
Unknown	0.01	Unknown
Hashishene	0.76	Monoterpene
Tricyclene	0.06	Monoterpene
α -Thujene	1.74	Monoterpene
α -Pinene	40.54	Monoterpene
Unknown	0.04	Monoterpene
Camphene	0.66	Monoterpene
α -Fenchene	0.01	Monoterpene
Thuja-2,4(10)-diene	0.42	Monoterpene
3,7,7-Trimethylcyclohepta-1,3,5-triene	0.15	Monoterpene
Sabinene	6.12	Monoterpene
β -Pinene	1.40	Monoterpene
Pseudolimonene isomer	0.03	Monoterpene
<i>trans</i> -para-Menthane	0.02	Monoterpene
6-Methyl-5-hepten-2-one	0.03	Aliphatic ketone
Dehydro-1,8-cineole	0.07	Monoterpenic ether
Myrcene	7.72	Monoterpene
α -Phellandrene	1.58	Monoterpene
Pseudolimonene	0.03	Monoterpene
Octanal	0.05	Aliphatic aldehyde
Δ^3 -Carene	1.26	Monoterpene
ortho-Methylanisole	0.11	Simple phenolic
α -Terpinene	0.17	Monoterpene
meta-Cymene	0.03	Monoterpene
para-Cymene	3.66	Monoterpene
Limonene	12.87	Monoterpene
1,8-Cineole	0.23	Monoterpenic ether
β -Phellandrene	0.50	Monoterpene
ortho-Cymene	0.03	Monoterpene
Unknown	0.02	Unknown
(Z)- β -Ocimene	0.45	Monoterpene
Unknown	0.01	Unknown
(E)- β -Ocimene	0.13	Monoterpene
Unknown	0.01	Unknown
γ -Terpinene	0.30	Monoterpene
<i>cis</i> -Sabinene hydrate	0.04	Monoterpenic alcohol

Unknown	0.02	Oxygenated monoterpene
<i>cis</i> -Linalool oxide (fur.)	0.01	Monoterpenic alcohol
meta-Cymenene	0.06	Monoterpene
para-Cymenene	0.03	Monoterpene
<i>trans</i> -Linalool oxide (fur.)	0.02	Monoterpenic alcohol
Terpinolene	0.11	Monoterpene
α -Pinene oxide	0.04	Monoterpenic ether
6,7-Epoxymyrcene	0.01	Monoterpenic ether
<i>trans</i> -Sabinene hydrate	0.03	Monoterpenic alcohol
α -Thujone	0.10	Monoterpenic ketone
Linalool	0.23	Monoterpenic alcohol
Unknown	0.03	Monoterpenic alcohol
Verbenol analog?	0.04	Monoterpenic alcohol
β -Thujone	0.07	Monoterpenic ketone
Unknown	0.02	Oxygenated monoterpene
<i>trans</i> -para-Mentha-2,8-dien-1-ol	0.06	Monoterpenic alcohol
<i>cis</i> -para-Menth-2-en-1-ol	0.04	Monoterpenic alcohol
α -Campholenal	0.11	Monoterpenic aldehyde
Myrcenol	0.02	Monoterpenic alcohol
Unknown	0.11	Unknown
<i>cis</i> -Limonene oxide	0.04	Monoterpenic ether
allo-Ocimene	0.01	Monoterpene
<i>trans</i> -Pinocarveol	0.35	Monoterpenic alcohol
<i>trans</i> -Limonene oxide	0.02	Monoterpenic ether
<i>trans</i> -Sabinol	0.17	Monoterpenic alcohol
<i>trans</i> -Verbenol	0.50	Monoterpenic alcohol
meta-Mentha-4,6-dien-8-ol	0.11	Monoterpenic alcohol
Unknown	0.04	Oxygenated monoterpene
Pinocamphone	0.05	Monoterpenic ketone
Pinocarvone	0.03	Monoterpenic ketone
Unknown	0.02	Oxygenated monoterpene
Borneol	0.03	Monoterpenic alcohol
α -Phellandren-8-ol	0.17	Monoterpenic alcohol
<i>cis</i> -Sabinol	0.04	Monoterpenic alcohol
Terpinen-4-ol	0.55	Monoterpenic alcohol
Thuj-3-en-10-al	0.07	Monoterpenic aldehyde
meta-Cymen-8-ol	0.02	Monoterpenic alcohol
Cryptone	0.03	Normonoterpenic ketone
para-Cymen-8-ol	0.12	Monoterpenic alcohol
α -Terpineol	0.37	Monoterpenic alcohol
Myrtenal	0.03	Monoterpenic aldehyde
Myrtenol	0.14	Monoterpenic alcohol
<i>cis</i> - α -Phellandrene epoxide (iPr vs Me)	0.07	Monoterpenic ether
Verbenone	0.30	Monoterpenic ketone
<i>trans</i> -Piperitol	0.04	Monoterpenic alcohol
Octyl acetate	0.01	Aliphatic ester
<i>trans</i> -Carveol	0.14	Monoterpenic alcohol
<i>cis</i> -Carveol	0.04	Monoterpenic alcohol
Cuminal	0.04	Monoterpenic aldehyde
Carvone	0.13	Monoterpenic ketone
Carvotanacetone	0.03	Monoterpenic ketone
Piperitone	0.08	Monoterpenic ketone

Linalyl acetate	0.01	Monoterpenic ester
3,5-Dimethoxytoluene	0.05	Simple phenolic
Unknown	0.04	Oxygenated monoterpene
Bornyl acetate	0.22	Monoterpenic ester
para-Cymen-7-ol	0.03	Monoterpenic alcohol
Thymol	0.01	Monoterpenic alcohol
Carvacrol	0.03	Monoterpenic alcohol
Bicycloelemene	0.04	Sesquiterpene
Unknown	0.03	Unknown
α -Terpinyl acetate	0.02	Monoterpenic ester
α -Cubebene	0.18	Sesquiterpene
Cyclosativene I	0.04	Sesquiterpene
Cyclosativene II	0.05	Sesquiterpene
α -Ylangene	0.07	Sesquiterpene
α -Copaene	0.65	Sesquiterpene
β -Bourbonene	0.33	Sesquiterpene
β -Cubebene	0.09	Sesquiterpene
β -Elemene	1.00	Sesquiterpene
Unknown	0.03	Unknown
Isocaryophyllene	0.05	Sesquiterpene
α -Gurjunene	0.17	Sesquiterpene
β -Caryophyllene	2.31	Sesquiterpene
β -Copaene	0.07	Sesquiterpene
<i>trans</i> - α -Bergamotene	0.13	Sesquiterpene
6,9-Guaiadiene	0.10	Sesquiterpene
Unknown	0.05	Sesquiterpene
α -Humulene	0.44	Sesquiterpene
allo-Aromadendrene	0.18	Sesquiterpene
<i>cis</i> -Muurolo-4(15),5-diene	0.03	Sesquiterpene
<i>trans</i> -Cadina-1(6),4-diene	0.04	Sesquiterpene
γ -Muurolole	0.25	Sesquiterpene
Germacrene D	0.37	Sesquiterpene
β -Selinene	0.39	Sesquiterpene
<i>trans</i> -Muurolo-4(15),5-diene	0.03	Sesquiterpene
δ -Selinene	0.11	Sesquiterpene
α -Selinene	0.21	Sesquiterpene
epi-Cubebol	0.11	Sesquiterpenic alcohol
Bicyclogermacrene	tr	Sesquiterpene
α -Muurolole	0.16	Sesquiterpene
Germacrene A	0.05	Sesquiterpene
δ -Amorphene	0.02	Sesquiterpene
γ -Cadinene	0.26	Sesquiterpene
Cubebol	0.27	Sesquiterpenic alcohol
δ -Cadinene	0.56	Sesquiterpene
<i>trans</i> -Cadina-1,4-diene	0.03	Sesquiterpene
α -Cadinene	0.03	Sesquiterpene
α -Calacorene	0.02	Sesquiterpene
Isocaryophyllene epoxide B	0.02	Sesquiterpenic ether
α -Elemol	0.03	Sesquiterpenic alcohol
Germacrene B	0.07	Sesquiterpene
Elemicin	0.02	Phenylpropanoid
Palustrol	0.03	Sesquiterpenic alcohol

Unknown	0.04	Oxygenated sesquiterpene
Spathulenol	0.10	Sesquiterpenic alcohol
Germacrene D-4-ol	0.04	Sesquiterpenic alcohol
Caryophyllene oxide	0.43	Sesquiterpenic ether
Caryophyllene oxide isomer	0.06	Sesquiterpenic ether
Salvial-4(14)-en-1-one	0.01	Aliphatic alcohol
Viridiflorol	0.70	Sesquiterpenic alcohol
Copaborneol	0.07	Sesquiterpenic alcohol
Humulene epoxide II	0.07	Sesquiterpenic ether
10-epi-Cubenol	0.03	Sesquiterpenic alcohol
Unknown	0.07	Sesquiterpenic alcohol
1-epi-Cubenol	0.04	Sesquiterpenic alcohol
τ -Cadinol	0.14	Sesquiterpenic alcohol
τ -Muurolol	0.02	Sesquiterpenic alcohol
β -Eudesmol	0.04	Sesquiterpenic alcohol
α -Cadinol	0.02	Sesquiterpenic alcohol
(3Z)-Caryophylla-3,8(13)-dien-5 β -ol	0.03	Sesquiterpenic alcohol
Germacra-4(15),5,10(14)-trien-1 α -ol	0.01	Sesquiterpenic alcohol
Shyobunol	0.01	Sesquiterpenic alcohol
α -Phellandrene dimer II	0.04	Diterpene
α -Phellandrene dimer III	0.01	Diterpene
α -Phellandrene dimer IV	0.01	Diterpene
(3E)-Cembrene A	0.11	Diterpene
Cembrene C	0.03	Diterpene
Incensole	0.07	Diterpenic alcohol
Serratol	0.32	Diterpenic alcohol
Consolidated total	98.46%	

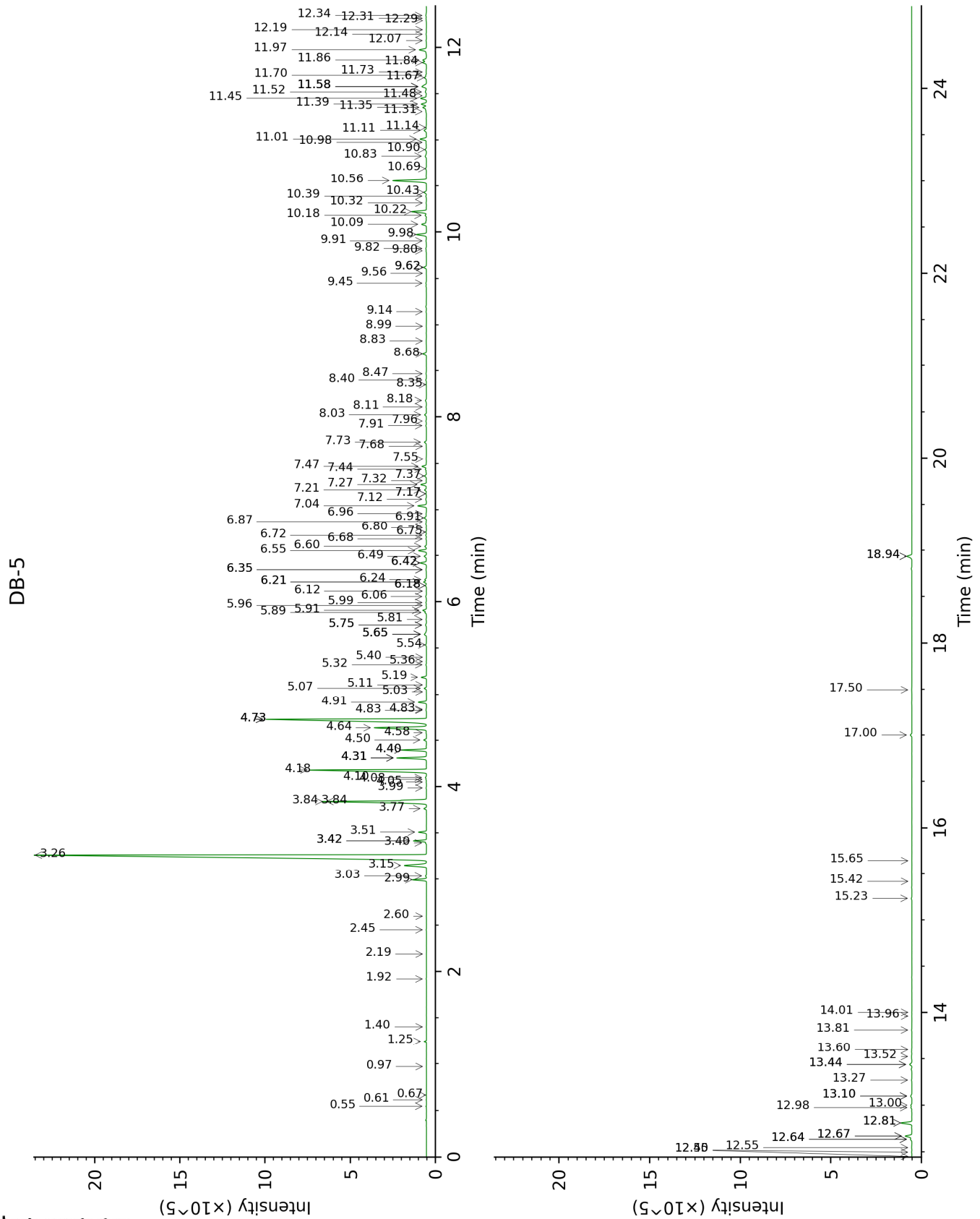
tr: The compound has been detected below 0.005% of total signal.

Note: no correction factor was applied

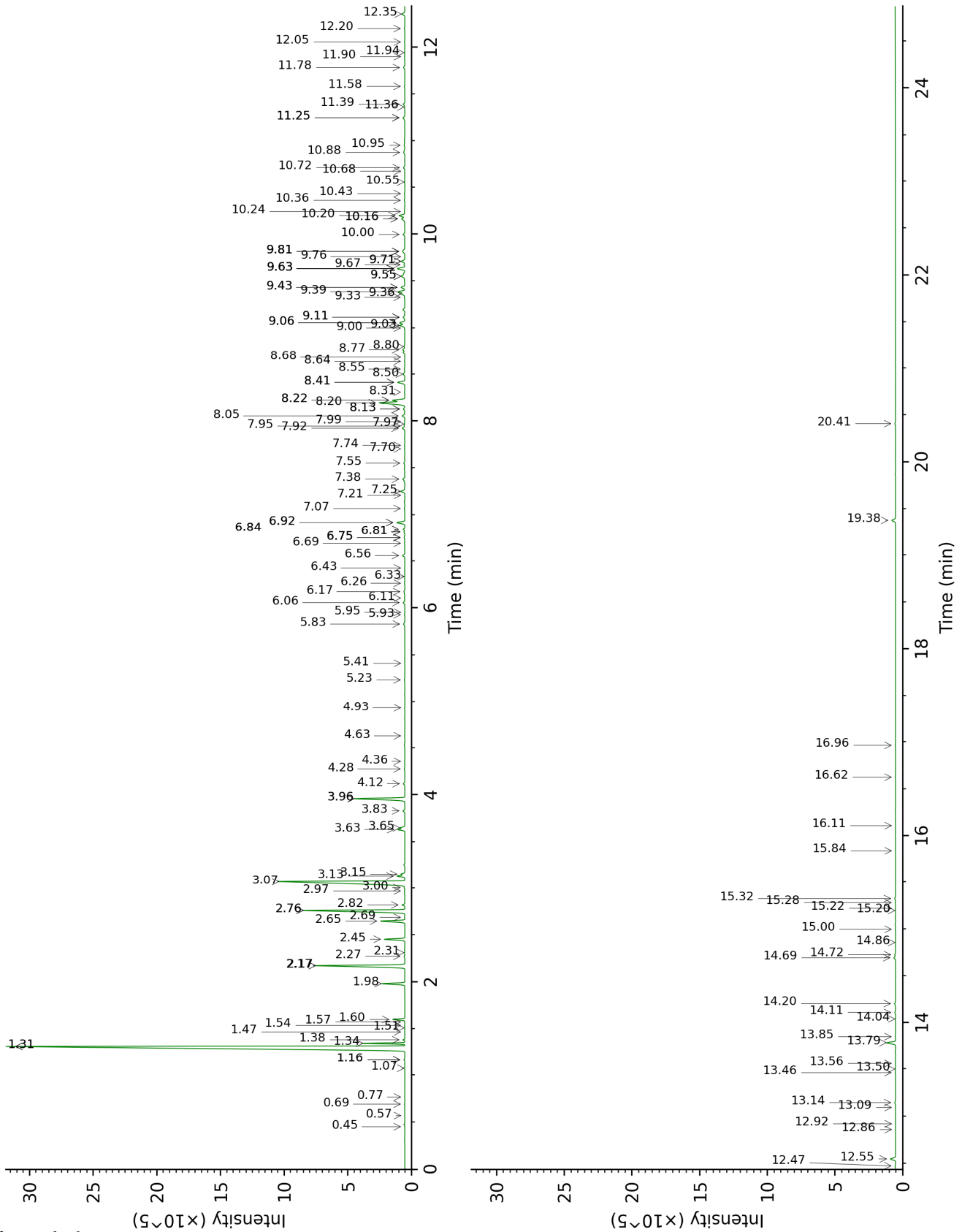
About "consolidated" data: The table above presents the breakdown of the sample volatile constituents after applying an algorithm to collapse data acquired from the multi-columns system of PhytoChemia into a single set of consolidated contents. In case of discrepancies between columns, the algorithm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



DB-WAX



FULL ANALYSIS DATA

Identification	Column DB-5			Column DB-WAX		
	R.T	R.I	%	R.T	R.I	%
2-Methyl-3-buten-2-ol	0.55	606	0.01	1.51	1015	0.01
(E)-2-Methyl-1,3-pentadiene	0.62	629	0.01	0.45	761	0.01
3-Methyl-2-butanone	0.67	646	0.01	0.77	899	0.01
Unknown [m/z 93, 91 (70), 77 (48), 108 (42)]	0.97	722	tr	0.57	827	tr
Toluene	1.25	759	0.08	1.38	1002	0.08
Prenal	1.40	780	tr	3.00	1154	0.05
Unknown [m/z 109, 67 (32), 81 (14), 41 (12), 124 (10)]	1.92	832	0.02	0.69	877	0.01
Unknown [m/z 109, 43 (28), 124 (28), 41 (14), 55 (11), 79 (9), 81 (8)...]	2.19	854	0.01	1.57	1022	0.01
Unknown [m/z 79, 78 (45), 91 (28), 77 (28), 41 (13), 80 (12), 107 (11)... 122 (1)]	2.45	875	0.02	1.07	953	0.01
Unknown [m/z 119, 91 (35), 79 (17), 77 (13), 120 (11), 117 (9)... 134 (1)]	2.60	887	0.01	1.16*	969	0.06
Hashishene	2.99	916	0.76	1.31*	995	41.35
Tricyclene	3.03	918	0.06	1.16*	969	[0.06]
α-Thujene	3.15	926	1.74	1.34	998	1.74
α-Pinene	3.26	934	40.54	1.31*	995	[41.35]
Unknown [m/z 91, 92 (47), 65 (11)... 134 (1)]	3.40	942	0.04	2.27	1094	0.05
Camphene	3.42*	944	0.67	1.60	1024	0.66
α-Fenchene	3.42*	944	[0.67]	1.54	1018	0.01
Thuja-2,4(10)-diene	3.51	950	0.42	2.17*	1084	6.55
3,7,7-Trimethylcyclohepta-1,3,5-triene	3.76	966	0.15	2.76*	1134	7.89
Sabinene	3.84*	972	7.52	2.17*	1084	[6.55]
β-Pinene	3.84*	972	[7.52]	1.98	1064	1.40
Pseudolimonene isomer	3.99	981	0.03	2.31	1097	0.02
trans-para-Menthane	4.05	985	0.02	1.47	1010	0.01
6-Methyl-5-hepten-2-one	4.08	987	0.03	4.93	1298	0.02
Dehydro-1,8-cineole	4.10	988	0.07	2.97	1151	0.02
Myrcene	4.18	994	7.72	2.76*	1134	[7.89]
α-Phellandrene	4.31*	1002	1.68	2.65	1125	1.58

Pseudolimonene	4.31*	1002	[1.68]	2.69	1128	0.03
Octanal	4.31*	1002	[1.68]	4.28	1252	0.05
Δ3-Carene	4.40*	1008	1.36	2.45	1109	1.26
ortho-Methylanisole	4.40*	1008	[1.36]	5.83	1363	0.11
α-Terpinene	4.50	1014	0.17	2.82	1139	0.15
meta-Cymene	4.58	1019	0.03	3.96*	1228	3.65
para-Cymene	4.64	1023	3.66	3.96*	1228	[3.65]
Limonene	4.73*	1028	13.53	3.07	1159	12.87
1,8-Cineole	4.73*	1028	[13.53]	3.16	1166	0.23
β-Phellandrene	4.73*	1028	[13.53]	3.14	1164	0.50
ortho-Cymene	4.83	1034	0.03	4.36	1258	0.03
Unknown [m/z 67, 93 (70), 82 (70), 121 (42), 107 (39), 91 (33), 79 (28)...]	4.84	1035	0.02			
(Z)-β-Ocimene	4.91	1040	0.45	3.63	1204	0.49
Unknown [m/z 109, 43 (57), 91 (28), 67 (25), 93 (24), 95 (22), 77 (21), 137 (21), 41 (17), 79 (14)...]	5.03	1047	0.01	7.21	1465	0.01
(E)-β-Ocimene	5.07	1050	0.13	3.83	1219	0.13
Unknown [m/z 109, 45 (67), 41 (40), 67 (39), 81 (33), 79 (27), 95 (24), 91 (23), 82 (21), 55 (21), 93 (20)...]	5.11	1052	0.01	6.75*	1431	0.07
γ-Terpinene	5.19	1057	0.30	3.65	1205	0.28
cis-Sabinene hydrate	5.32	1065	0.04	6.69	1426	0.03
Unknown [m/z 79, 93 (60), 43 (40), 94 (35), 137 (33), 77 (26), 91 (20), 152 (18)]	5.36	1068	0.02	4.63	1279	0.02
cis-Linalool oxide (fur.)	5.40	1070	0.01	6.34	1400	0.01
meta-Cymenene	5.54	1079	0.06	6.06	1379	0.13
para-Cymenene	5.65*	1086	0.22	6.11	1383	0.03
trans-Linalool oxide (fur.)	5.65*	1086	[0.22]	6.75*	1431	[0.07]
Terpinolene	5.65*	1086	[0.22]	4.12	1240	0.11
α-Pinene oxide	5.75*	1092	0.08	5.23	1320	0.04
6,7-Epoxymyrcene	5.75*	1092	[0.08]	5.95	1372	0.01
trans-Sabinene hydrate	5.81	1096	0.03	7.74	1505	0.03
α-Thujone	5.89	1100	0.10	5.93	1370	0.04
Linalool	5.91	1102	0.23	7.92	1519	0.20
Unknown [m/z 119, 109 (94), 43 (61), 95 (56), 91 (48), 77 (32), 152 (32), 137 (31), 134 (24)]	5.96	1105	0.03	8.31	1549	0.03

Verbenol analog?	5.99	1107	0.04	8.13*	1535	0.12
β-Thujone	6.06	1111	0.07	6.17	1388	0.08
Unknown [m/z 109, 91 (57), 93 (47), 81 (44), 77 (40)... 154 (1)]	6.12	1115	0.02			
<i>trans</i> -para-Mentha-2,8-dien-1-ol	6.18*	1119	0.07	8.80	1587	0.06
<i>cis</i> -para-Menth-2-en-1-ol	6.18*	1119	[0.07]	7.95	1521	0.04
α-Campholenal	6.22*	1121	0.17	6.84*	1438	0.15
Myrcenol	6.22*	1121	[0.17]	8.68	1578	0.02
Unknown [m/z 111, 43 (22), 55 (14), 41 (12), 110 (11)...]	6.24	1123	0.11			
<i>cis</i> -Limonene oxide	6.35*	1130	0.05	6.26	1394	0.04
allo-Ocimene	6.35*	1130	[0.05]	5.41	1333	0.01
<i>trans</i> -Pinocarveol	6.42*	1134	0.43	9.03†	1605	0.83
<i>trans</i> -Limonene oxide	6.42*	1134	[0.43]	6.43	1406	0.02
<i>trans</i> -Sabinol	6.49	1139	0.17	9.63*	1654	0.64
<i>trans</i> -Verbenol	6.55	1143	0.50	9.39	1634	0.55
meta-Mentha-4,6-dien-8-ol	6.60	1146	0.11	9.11*	1612	0.14
Unknown [m/z 109, 81 (39), 41 (38), 95 (24)... 152 (1)]	6.68	1151	0.04			
Pinocamphone	6.72	1153	0.05	7.07	1454	0.04
Pinocarvone	6.75	1155	0.03	7.70	1502	0.03
Unknown [m/z 109, 43 (75), 137 (46), 67 (31), 93 (25)... 152 (4)]	6.80	1159	0.02			
Borneol	6.87	1163	0.03	9.63*	1654	[0.64]
α-Phellandren-8-ol	6.91	1166	0.17	10.00	1683	0.14
<i>cis</i> -Sabinol	6.96	1168	0.04	10.68	1741	0.02
Terpinen-4-ol	7.04	1174	0.55	8.41*	1557	0.61
Thuj-3-en-10-al	7.12	1178	0.07	8.55	1568	0.06
meta-Cymen-8-ol	7.17*	1182	0.05	11.36	1799	0.02
Cryptone	7.17*	1182	[0.05]	9.00	1603	0.03
para-Cymen-8-ol	7.22	1185	0.12	11.39	1801	0.12
α-Terpineol	7.27	1188	0.37	9.63*	1654	[0.64]
Myrtenal	7.32	1191	0.03	8.50	1564	0.14
Myrtenol	7.37	1194	0.14	10.72	1744	0.11
<i>cis</i> -α-Phellandrene epoxide (iPr vs Me)	7.44	1199	0.07	10.88	1758	0.15
Verbenone	7.47	1201	0.30	9.43*	1638	0.32
<i>trans</i> -Piperitol	7.55	1206	0.04	10.24	1704	0.04
Octyl acetate	7.68	1215	0.01	6.92*	1443	0.64
<i>trans</i> -Carveol	7.73	1218	0.14	11.25*	1789	0.18
<i>cis</i> -Carveol	7.91	1230	0.04	11.58	1818	0.04
Cuminal	7.96	1233	0.04	10.36	1714	0.05
Carvone	8.02	1238	0.13	9.82*	1669	0.29
Carvotanacetone	8.11	1243	0.03	9.33	1629	0.05

Piperitone	8.18	1248	0.08	9.71*	1660	0.29
Linalyl acetate	8.35	1259	0.01	7.99	1524	0.02
3,5-Dimethoxytoluene	8.40	1263	0.05	11.25*	1789	[0.18]
Unknown [m/z 109, 41 (22), 81 (14), 43 (11)... 152 (4)]	8.47	1267	0.04			
Bornyl acetate	8.68	1282	0.22	8.06	1529	0.22
para-Cymen-7-ol	8.83	1291	0.03	14.04	2043	0.03
Thymol	8.99	1302	0.01	15.00	2136	0.03
Carvacrol	9.14	1313	0.03	15.22	2158	0.03
Bicycloelemene	9.45	1334	0.04	6.84*	1438	[0.15]
Unknown [m/z 133, 105 (45), 91 (38), 119 (36)... 150 (3)]	9.56	1342	0.03			
α-Terpinyl acetate	9.62*	1346	0.20	9.55*†	1647	0.47
α-Cubebene	9.62*	1346	[0.20]	6.56	1416	0.18
Cyclosativene I	9.80	1359	0.04	6.75*	1431	[0.07]
Cyclosativene II	9.82	1360	0.05	6.81*	1435	0.07
α-Ylangene	9.91	1366	0.07	6.81*	1435	[0.07]
α-Copaene	9.98	1371	0.65	6.92*	1443	[0.64]
β-Bourbonene	10.09	1379	0.33	7.25	1468	0.33
β-Cubebene	10.18	1386	0.09	7.55	1490	0.10
β-Elemene	10.22	1388	1.00	8.22*†	1542	[3.34]
Unknown [m/z 71, 100 (92), 111 (79), 69 (46), 109 (45)...]	10.32	1395	0.03	16.96	2339	0.04
Isocaryophyllene	10.39	1400	0.05	7.97	1522	0.03
α-Gurjunene	10.43	1403	0.17	7.38	1478	0.17
β-Caryophyllene	10.56	1413	2.31	8.20†	1540	3.34
β-Copaene	10.69	1423	0.07	8.13*	1535	[0.12]
trans-α-Bergamotene	10.83	1433	0.13	8.22*†	1542	[3.34]
6,9-Guaiadiene	10.90	1438	0.10	8.41*	1557	[0.61]
Unknown [m/z 91, 161 (92), 105 (85), 119 (63), 133 (53), 79 (49), 204 (46)]	10.98	1444	0.05	8.64	1574	0.03
α-Humulene	11.01	1446	0.44	9.06*†	1607	[0.83]
allo-Aromadendrene	11.11	1453	0.18	8.77	1584	0.18
cis-Muurolo-4(15),5-diene	11.14	1456	0.03	9.11*	1612	[0.14]
trans-Cadina-1(6),4-diene	11.31	1468	0.04	9.06*†	1607	[0.83]
γ-Muurolole	11.35	1472	0.25	9.36	1632	0.23
Germacrene D	11.39	1474	0.37	9.55*†	1647	[0.47]
β-Selinene	11.45	1479	0.39	9.63*	1654	[0.64]
trans-Muurolo-4(15),5-diene	11.48	1481	0.03	9.67	1657	0.06
δ-Selinene	11.52	1484	0.11	9.43*	1638	[0.32]
α-Selinene	11.58*	1488	0.44	9.71*	1660	[0.29]
epi-Cubebol	11.58*	1488	[0.44]	11.78	1836	0.11

Bicyclogermacrene	11.58*	1488	[0.44]	9.82*	1669	[0.29]
α-Muurolene	11.67	1495	0.16	9.82*	1669	[0.29]
Germacrene A	11.70	1497	0.05	10.16*	1697	0.33
δ-Amorphene	11.73	1500	0.02	9.76	1664	0.01
γ-Cadinene	11.84	1508	0.26	10.16*	1697	[0.33]
Cubebol	11.86	1510	0.27	12.35	1886	0.25
δ-Cadinene	11.98	1519	0.56	10.20	1700	0.48
<i>trans</i> -Cadina-1,4-diene	12.07	1526	0.03	10.43	1720	0.04
α-Cadinene	12.14	1532	0.03	10.55	1730	0.04
α-Calacorene	12.19	1536	0.02	11.90	1846	0.02
Isocaryophyllene epoxide B	12.29	1543	0.02	11.94	1850	0.02
α-Elemol	12.31	1545	0.03	13.85	2025	0.04
Germacrene B	12.34	1548	0.07	10.95	1764	0.06
Elemicin	12.45	1556	0.02	15.32	2169	0.09
Palustrol	12.50	1560	0.03	12.06	1860	0.04
Unknown [m/z 152, 109 (61), 43 (21), 137 (16), 151 (16)... 222 (6)]	12.55	1563	0.04			
Spathulenol	12.64*	1570	0.12	14.20	2059	0.10
Germacrene D-4-ol	12.64*	1570	[0.12]	13.46	1988	0.04
Caryophyllene oxide	12.67*	1573	0.48	12.55	1904	0.43
Caryophyllene oxide isomer	12.67*	1573	[0.48]	12.47	1897	0.06
Salvial-4(14)-en-1-one	12.81*	1584	0.72	12.86	1932	0.01
Viridiflorol	12.81*	1584	[0.72]	13.79	2019	0.70
Copaborneol	12.98	1597	0.07	14.72	2109	0.08
Humulene epoxide II	13.00	1599	0.07	13.14	1959	0.09
10-epi-Cubenol	13.10*	1607	0.11	13.50	1991	0.03
Unknown [m/z 161, 189 (76), 204 (66), 105 (60), 119 (46), 107 (41), 59 (38)...222 (3)]	13.10*	1607	[0.11]	14.11	2050	0.07
1-epi-Cubenol	13.27	1621	0.04	13.56	1997	0.03
τ-Cadinol	13.44*	1635	0.17	14.69	2106	0.14
τ-Muurolol	13.44*	1635	[0.17]	14.86	2122	0.02
β-Eudesmol	13.52	1642	0.04	15.20	2156	0.02
α-Cadinol	13.60	1648	0.02	15.28	2164	0.03
(3Z)-Caryophylla-3,8(13)-dien-5β-ol	13.81	1666	0.03	16.62	2303	0.04
Germacrene-4(15),5,10(14)-trien-1α-ol	13.96	1678	0.01	15.84	2221	0.01
Shyobunol	14.00	1681	0.01	16.11	2249	0.02
α-Phellandrene dimer II	15.23	1786	0.04	12.20	1872	0.05
α-Phellandrene dimer III	15.42	1802	0.01	12.92	1938	0.01

α -Phellandrene dimer IV	15.65	1823	0.01	13.09	1954	0.02
(3E)-Cembrene A	17.00	1948	0.11			
Cembrene C	17.50	1995	0.03			
Incensole	18.94*	2139	0.39	20.41	2733	0.07
Serratol	18.94*	2139	[0.39]	19.38	2610	0.32
Total identified		98.09%			97.37%	
Total reported		98.66%			97.67%	

*: 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