

Date : April 19, 2022

CERTIFICATE OF ANALYSIS – GC PROFILING

SAMPLE IDENTIFICATION

Internal code : 22D01-NSO01

Customer identification : Melissa Lemon Balm- United Kingdom - Lot: LB18,26541

Type : Essential oil

Source : *Melissa officinalis*

Customer : Natural Sourcing LLC

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

Analysis date : April 06, 2022

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Notes: This report may not be published, including online, without the written consent from Laboratoire PhytoChemia.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



*P*HYSICO*C*HEMICAL *D*ATA

Physical aspect: Light yellow liquid

Refractive index: 1.4909 ± 0.0003 (20 °C; method PC-MAT-016)

*C*ONCLUSION

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
Ethanol	0.01	Aliphatic alcohol
Isobutyral	0.02	Aliphatic aldehyde
2-Methyl-3-buten-2-ol	tr	Aliphatic alcohol
Isobutanol	tr	Aliphatic alcohol
Isovaleral	0.08	Aliphatic aldehyde
2-Methylbutyral	0.10	Aliphatic aldehyde
2-Ethylfuran	0.05	Furan
Isoamyl alcohol	tr	Aliphatic alcohol
2-Methylbutanol	tr	Aliphatic alcohol
Hexanal	0.03	Aliphatic aldehyde
Octane	0.01	Alkane
(2E)-Hexenal	0.07	Aliphatic aldehyde
(3Z)-Hexenol	0.04	Aliphatic alcohol
2-Methylbutyric acid	0.02	Aliphatic acid
Hexanol	0.02	Aliphatic alcohol
trans-2,5-Diethyltetrahydrofuran	0.02	Furan
Heptanal	0.02	Aliphatic aldehyde
Nonane	tr	Alkane
α-Pinene	0.05	Monoterpene
Benzaldehyde	0.02	Simple phenolic
Ethyl isohexanoate	0.01	Aliphatic ester
Sabinene	0.01	Monoterpene
β-Pinene	0.01	Monoterpene
Octen-3-ol	0.54	Aliphatic alcohol
6-Methyl-5-hepten-2-one	1.17	Aliphatic ketone
Octan-3-one	0.18	Aliphatic ketone
6-Methyl-5-hepten-2-ol	0.32	Aliphatic alcohol
Myrcene	0.23	Monoterpene
α-Phellandrene	0.01	Monoterpene
Octanal	0.02	Aliphatic aldehyde
Octan-3-ol	0.08	Aliphatic alcohol
Ethyl hexanoate	0.02	Aliphatic ester
(3Z)-Hexenyl acetate	0.01	Aliphatic ester
α-Terpinene	0.01	Monoterpene
para-Cymene	0.01	Monoterpene
Limonene	0.04	Monoterpene
1,8-Cineole	0.02	Monoterpenic ether
Unknown	0.01	Unknown
Benzyl alcohol	tr	Simple phenolic
Benzeneacetaldehyde	0.03	Simple phenolic
(Z)-β-Ocimene	0.39	Monoterpene
(E)-β-Ocimene	3.74	Monoterpene
2,6-Dimethyl-5-heptenal (melonal)	0.04	Aliphatic aldehyde
γ-Terpinene	0.01	Monoterpene
cis-Linalool oxide (fur.)	0.02	Monoterpenic alcohol

Terpinolene	0.02	Monoterpene
Rosefuran	0.17	Monoterpenic ether
Linalool	1.26	Monoterpenic alcohol
Nonanal	0.24	Aliphatic aldehyde
cis-Rose oxide	0.08	Monoterpenic ether
Phenylethyl alcohol	0.02	Simple phenolic
trans-para-Mentha-2,8-dien-1-ol	0.01	Monoterpenic alcohol
Unknown	0.03	Unknown
trans-Rose oxide	0.04	Monoterpenic ether
Melonol ?	0.01	Normonoterpene
Unknown	0.27	Unknown
exo-Isocitral	0.06	Monoterpenic aldehyde
trans-Chrysanthemal	0.41	Monoterpenic aldehyde
trans-Chrysanthemol	0.01	Monoterpenic alcohol
iso-Isopulegol	0.04	Monoterpenic alcohol
Citronellal	2.37	Monoterpenic aldehyde
(2E)-Nonenal	0.02	Aliphatic aldehyde
Isoneral	0.20	Monoterpenic aldehyde
α -Cyclogeraniol?	0.01	Monoterpenic alcohol
Terpinen-4-ol	0.05*	Monoterpenic alcohol
Rosefuran oxide	0.05*	Monoterpenic ether
Unknown	0.06	Oxygenated monoterpene
Isogeranial	0.28	Monoterpenic aldehyde
α -Terpineol	0.08	Monoterpenic alcohol
Methyl salicylate	0.06	Phenolic ester
trans-Isopiperitenol	0.01	Monoterpenic alcohol
Unknown	0.04	Oxygenated monoterpene
Unknown	0.04	Oxygenated monoterpene
Unknown	0.08	Oxygenated monoterpene
Nerol	0.26	Monoterpenic alcohol
Citronellol	0.16	Monoterpenic alcohol
Neral	13.21	Monoterpenic aldehyde
(Z)-Isogeraniol	0.07	Monoterpenic alcohol
Piperitone	0.03	Monoterpenic ketone
Linalyl acetate	0.28	Monoterpenic ester
Geraniol	0.57	Monoterpenic alcohol
Methyl citronellate	0.35	Monoterpenic ester
Geranial	17.65	Monoterpenic aldehyde
Unknown	0.09	Unknown
Unknown	0.07	Oxygenated monoterpene
Geranyl formate	0.04	Monoterpenic ester
Carvacrol	0.02	Monoterpenic alcohol
Methyl geranate	0.25	Monoterpenic ester
Unknown	0.06	Unknown
Eugenol	0.05	Phenylpropanoid
Neryl acetate	0.05	Monoterpenic ester
α -Copaene	1.48	Sesquiterpene
β -Bourbonene	0.55	Sesquiterpene
1,5-diepi- β -Bourbonene	0.07	Sesquiterpene
Geranyl acetate	0.54	Monoterpenic ester
β -Cubebene	0.48	Sesquiterpene
β -Elemene	0.51	Sesquiterpene

Laboratoire
PhytoChemia

Plus que des analyses... des conseils

Isocaryophyllene	0.05	Sesquiterpene
β-Caryophyllene	21.78	Sesquiterpene
β-Copaene	0.19	Sesquiterpene
Aromadendrene	0.04	Sesquiterpene
trans-a-Bergamotene	0.04	Sesquiterpene
Isogermacrene D	0.05	Sesquiterpene
α-Humulene	1.50	Sesquiterpene
allo-Aromadendrene	0.22	Sesquiterpene
cis-Muurola-4(15),5-diene	0.13	Sesquiterpene
(E)-β-Farnesene	0.77	Sesquiterpene
trans-Cadina-1(6),4-diene	0.10	Sesquiterpene
γ-Muurolene	0.36	Sesquiterpene
Germacrene D	13.33	Sesquiterpene
α-Selinene	0.30	Sesquiterpene
α-Muurolene	0.06	Sesquiterpene
(3Z,6E)-α-Farnesene	1.19	Sesquiterpene
γ-Cadinene	0.60	Sesquiterpene
(3E,6E)-α-Farnesene	0.66	Sesquiterpene
δ-Cadinene	1.93	Sesquiterpene
trans-Cadina-1,4-diene	0.09	Sesquiterpene
α-Cadinene	0.15	Sesquiterpene
Isocaryophyllene epoxide B	0.05	Sesquiterpenic ether
α-Elemol	tr	Sesquiterpenic alcohol
(E)-Nerolidol	0.07	Sesquiterpenic alcohol
Germacrene D-4-ol	0.40	Sesquiterpenic alcohol
Caryophyllene oxide	0.72	Sesquiterpenic ether
Caryophyllene oxide isomer	0.01	Sesquiterpenic ether
Humulene epoxide II	0.05	Sesquiterpenic ether
Fokienol	0.02	Terpenic alcohol
10-epi-Cubenol	0.07	Sesquiterpenic alcohol
1-epi-Cubenol	0.05	Sesquiterpenic alcohol
τ-Cadinol	0.22	Sesquiterpenic alcohol
τ-Muurolol	0.29	Sesquiterpenic alcohol
α-Muurolol	0.09	Sesquiterpenic alcohol
α-Cadinol	0.39	Sesquiterpenic alcohol
(3Z)-Caryophylla-3,8(13)-dien-5β-ol	0.04	Sesquiterpenic alcohol
Unknown	0.01	Oxygenated sesquiterpene
Germacra-4(15),5,10(14)-trien-1-ol isomer	0.03	Sesquiterpenic alcohol
Germacra-4(15),5,10(14)-trien-1α-ol	0.02	Sesquiterpenic alcohol
Eremophilone	0.01	Sesquiterpenic ketone
Phytone	0.10	Terpenic ketone
trans-9-Nonadecene	0.01	Alkene
Nonadecane	0.04	Alkane
Geranyl-para-cymene	0.11	Diterpene
Unknown	0.04	Unknown
Unknown	0.03	Unknown
Unknown	0.04	Unknown
Heneicosane	0.02	Alkane
6-Methyl-4,6-bis(4-methylpent-3-en-1-yl)cyclohexa-1,3-dienecarbaldehyde?	0.02	Diterpenic aldehyde
Unknown	0.06	Unknown
Docosane	0.06	Alkane

Laboratoire
PhytoChemia

Plus que des analyses... des conseils

Pentacosane	0.01	Alkane
Consolidated total	96.95%	

*: 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

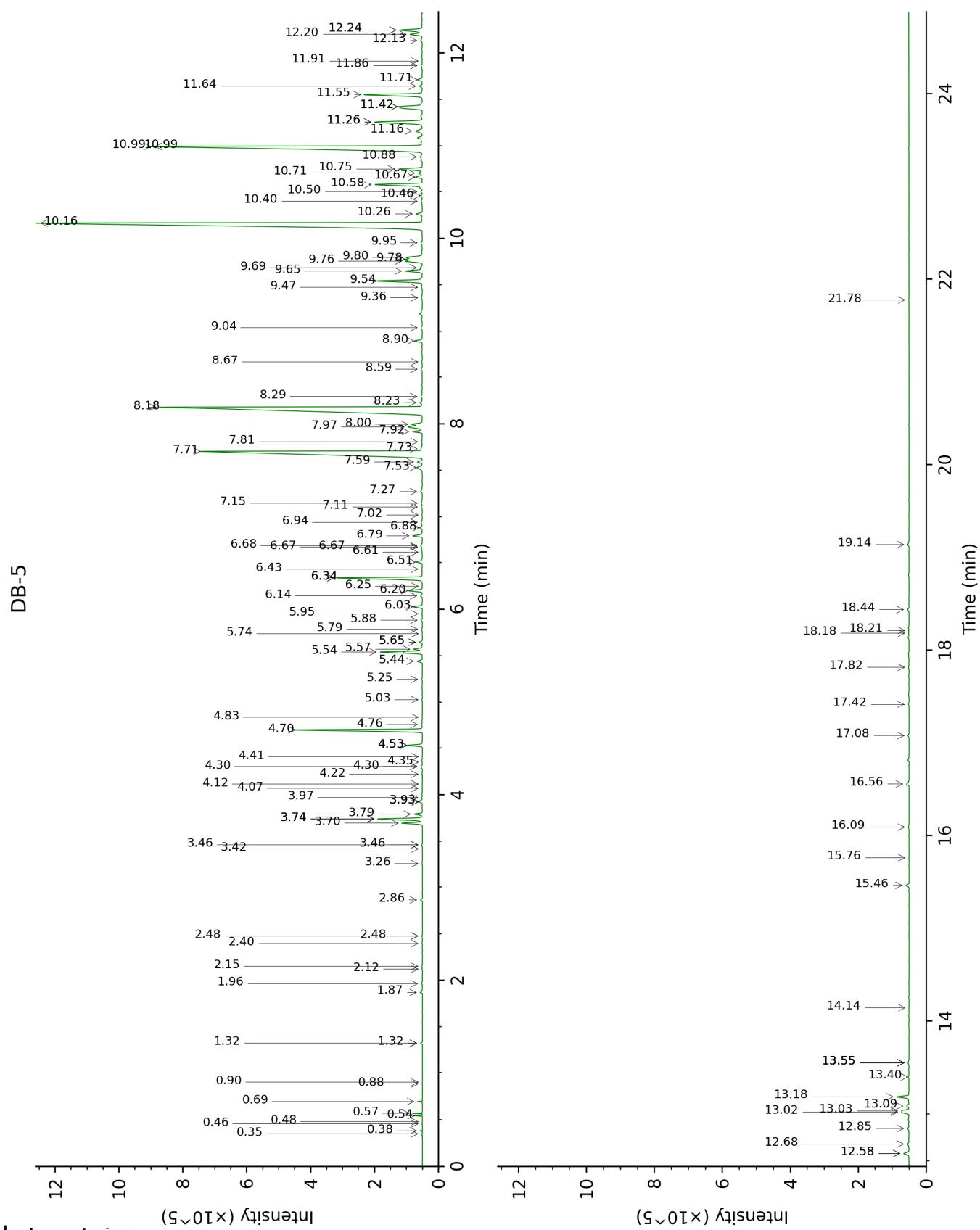
tr: The compound has been detected below 0.005% of total signal.

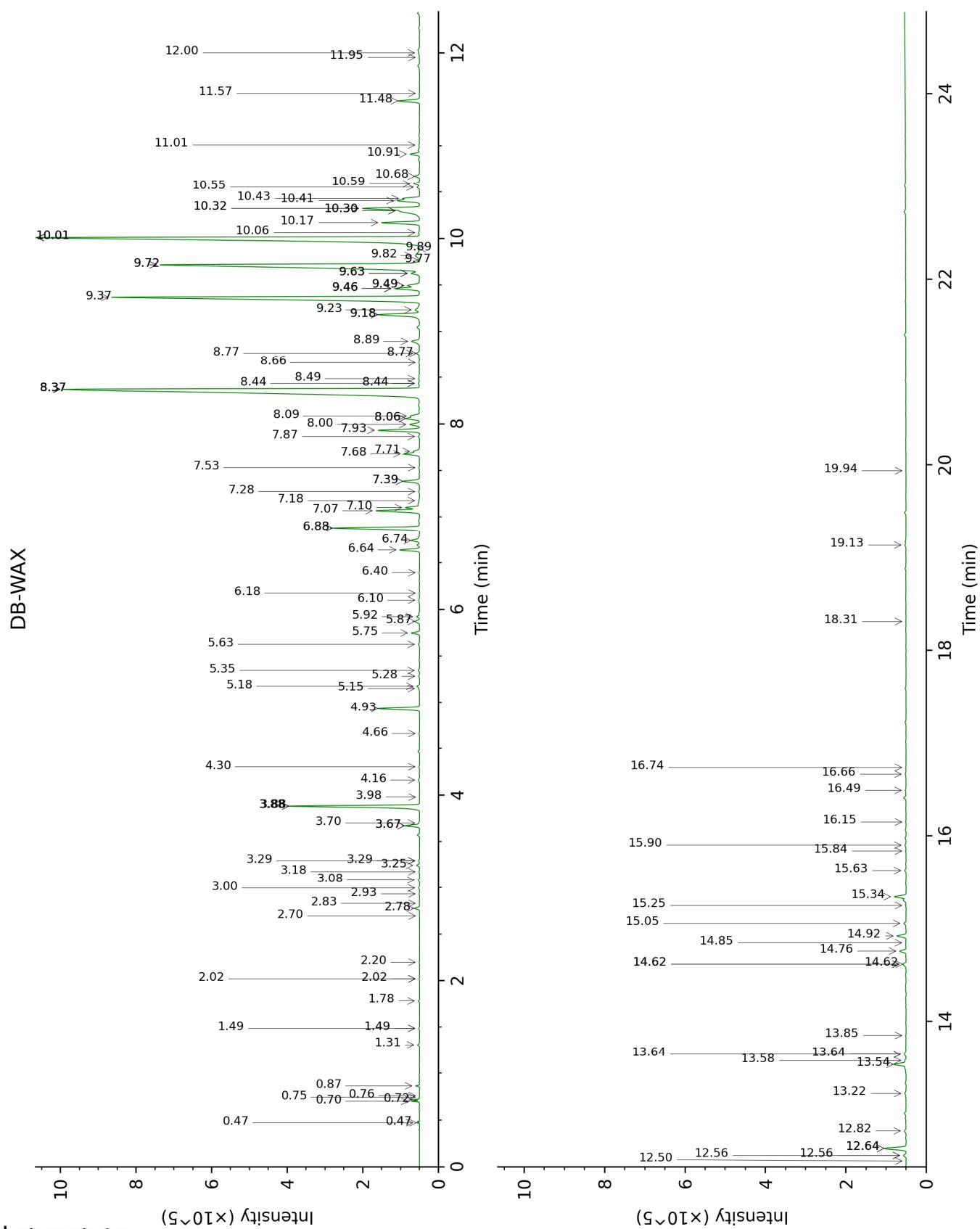
Note: no correction factor was applied

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	%
Ethanol	0.35	507	0.01	0.76	903	tr
Isobutyral	0.38	538	0.02	0.47*	785	0.03
2-Methyl-3-buten-2-ol	0.46	607	tr	1.49*	1014	0.02
Isobutanol	0.48	616	tr	2.02*	1067	0.02
Isovaleral	0.54	642	0.08	0.72	887	0.08
2-Methylbutyral	0.57	652	0.10	0.70	882	0.10
2-Ethylfuran	0.69	702	0.05	0.87	920	0.05
Isoamyl alcohol	0.88	732	tr	3.30*	1176	0.03
2-Methylbutanol	0.90	735	tr	3.30*	1176	[0.03]
Hexanal	1.32*	802	0.05	1.78	1043	0.03
Octane	1.32*	802	[0.05]	0.47*	785	[0.03]
(2E)-Hexenal	1.87	850	0.07	3.25	1172	0.08
(3Z)-Hexenol	1.96	858	0.04	5.63	1347	0.04
2-Methylbutyric acid	2.12	872	0.02	9.50*†	1639	[1.22]
Hexanol	2.15	874	0.02	5.28	1323	0.03
trans-2,5-Diethyltetrahydrofuran	2.40	896	0.02	1.49*	1014	[0.02]
Heptanal	2.48*	903	0.02	2.93	1147	0.02
Nonane	2.48*	903	[0.02]	0.75	898	tr
α-Pinene	2.86	929	0.05	1.31	994	0.05
Benzaldehyde	3.26	956	0.02	7.18	1460	0.03
Ethyl isohexanoate	3.42	967	0.01	3.00	1152	0.03
Sabinene	3.46*	970	0.02	2.20	1085	0.01
β-Pinene	3.46*	970	[0.02]	2.02*	1067	[0.02]
Octen-3-ol	3.70	985	0.54	6.64	1420	0.55
6-Methyl-5-hepten-2-one	3.74*	988	1.35	4.93	1300	1.17
Octan-3-one	3.74*	988	[1.35]	3.88*	1221	3.91
6-Methyl-5-hepten-2-ol	3.74*	988	[1.35]	6.74	1428	0.32
Myrcene	3.79	992	0.23	2.78	1134	0.14
α-Phellandrene	3.93*	1001	0.13	2.70	1128	0.01
Octanal	3.93*	1001	[0.13]	4.30	1253	0.02
Octan-3-ol	3.93*	1001	[0.13]	5.92	1368	0.08
Ethyl hexanoate	3.97	1004	0.02	3.67*	1206	0.42
(3Z)-Hexenyl acetate	4.07	1010	0.01	4.66	1280	0.02
α-Terpinene	4.12	1013	0.01	2.83	1139	0.01
para-Cymene	4.22	1020	0.01	3.98	1229	tr
Limonene	4.30*	1025	0.06	3.08	1159	0.04
1,8-Cineole	4.30*	1025	[0.06]	3.18	1166	0.02
Unknown [m/z 59, 43 (16), 41 (13), 109 (12), 127 (8), 55 (8)...]	4.35	1028	0.01	6.18	1386	0.01
Benzyl alcohol	4.41	1032	tr	11.57	1813	0.01
Benzeneacetaldehyde	4.53*	1039	0.42	8.66	1573	0.03
(Z)-β-Ocimene	4.53*	1039	[0.42]	3.67*	1206	[0.42]
(E)-β-Ocimene	4.70	1050	3.74	3.88*	1221	[3.91]

2,6-Dimethyl-5-heptenal (melonal)	4.76	1053	0.04	5.15	1314	0.03
γ -Terpinene	4.83	1058	0.01	3.70	1208	0.02
cis-Linalool oxide (fur.)	5.03	1071	0.02	6.40	1402	0.02
Terpinolene	5.25	1084	0.02	4.16	1242	0.04
Rosefuran	5.44	1097	0.17	5.87	1365	0.17
Linalool	5.54	1103	1.26	7.93	1516	1.27
Nonanal	5.57	1105	0.24	5.75	1356	0.24
cis-Rose oxide	5.65*	1110	0.09	5.18	1315	0.08
Phenylethyl alcohol	5.65*	1110	[0.09]	11.95	1848	0.02
trans-para-Mentha-2,8-dien-1-ol	5.74	1116	0.01	8.77*	1581	0.11
Unknown [m/z 81, 79 (19), 41 (12), 92 (8), 77 (8)...]	5.79	1119	0.03	6.10	1381	0.03
trans-Rose oxide	5.88	1125	0.04	5.35	1327	0.05
Melonol ?	5.95	1129	0.01			
Unknown [m/z 70, 81 (94), 67 (52), 69 (45), 109 (44), 82 (35)...]	6.03	1134	0.27	6.88*	1438	2.64
exo-Isocitral	6.14	1142	0.06	7.39*	1475	0.57
trans-Chrysanthemal	6.20	1145	0.41	7.10	1454	0.40
trans-Chrysanthemol	6.25	1148	0.01	9.46*†	1637	1.22
iso-Isopulegol	6.34*	1154	2.69	7.87	1511	0.04
Citronellal	6.34*	1154	[2.69]	6.88*	1438	[2.64]
(2E)-Nonenal	6.43	1160	0.02	7.53	1486	0.03
Isoneral	6.51	1165	0.20	7.71†	1499	[0.70]
α -Cyclogeraniol?	6.61	1172	0.01			
Terpinen-4-ol	6.67*†	1175	0.05	8.44*	1555	0.05
Rosefuran oxide	6.67*†	1175	[0.05]	8.44*	1555	[0.05]
Unknown [m/z 84, 83 (74), 137 (56), 41 (47), 93 (43), 108 (40)... 152 (2)]	6.68	1176	0.06	9.50*†	1639	[1.22]
Isogeraniol	6.79	1183	0.28	8.08	1528	0.30
α -Terpineol	6.88	1189	0.08	9.63*	1650	0.28
Methyl salicylate	6.94	1192	0.06	10.32*†	1707	[2.74]
trans-Isopiperitenol	7.02	1198	0.01	10.30*†	1705	2.74
Unknown [m/z 84, 41 (83), 83 (79), 91 (76), 93 (67), 119 (64), 137 (63), 109 (54), 108 (54)... 152 (4)]	7.11	1203	0.04	10.01*	1681	18.29
Unknown [m/z 123, 81 (40), 67 (29), 79 (29), 93 (26), 121 (25), 41 (24), 55 (18), 69 (15)...]	7.15	1206	0.04			
Unknown [m/z 107, 79 (99), 91 (57), 94 (54), 135 (44), 150 (44)]	7.27	1214	0.08			
Nerol	7.53	1231	0.26	10.91	1757	0.29
Citronellol	7.59	1235	0.16	10.59	1730	0.18

Laboratoire
PhytoChemia

Plus que des analyses... des conseils

Neral	7.70	1243	13.21	9.37	1629	13.24
(Z)-Isogeraniol	7.73	1245	0.07	11.01	1766	0.03
Piperitone	7.81	1250	0.03	9.77	1662	0.04
Linalyl acetate	7.92	1257	0.28	8.00	1521	0.33
Geraniol	7.97	1261	0.57	11.48	1806	0.65
Methyl citronellate	8.00	1262	0.35	8.06*	1526	0.46
Geranal	8.18	1275	17.65	10.01*	1681	[18.29]
Unknown [m/z 59, 81 (60), 43 (57), 84 (42), 127 (32), 85 (30)...]	8.23	1278	0.09			
Unknown [m/z 43, 69 (77), 41 (70), 109 (54)... 152 (6)]	8.29	1282	0.07	12.82	1927	0.07
Geranyl formate	8.59	1302	0.04	9.72*	1657	13.37
Carvacrol	8.67	1308	0.02	15.25	2162	0.02
Methyl geranate	8.90	1324	0.25	9.63*	1650	[0.28]
Unknown [m/z 82, 59 (44), 41 (43), 95 (31), 43 (29), 81 (24)...]	9.04	1334	0.06	12.56*	1902	0.09
Eugenol	9.36	1356	0.05	14.62*	2098	0.14
Neryl acetate	9.48	1364	0.05	10.06	1686	0.05
α -Copaene	9.54	1369	1.48	7.07	1452	1.42
β -Bourbonene	9.65	1377	0.55	7.39*	1475	[0.57]
1,5-diepi- β -Bourbonene	9.68	1379	0.07	7.28	1467	0.03
Geranyl acetate	9.76	1384	0.54	10.43†	1716	[1.19]
β -Cubebene	9.78	1386	0.48	7.68†	1497	0.70
β -Elemene	9.80	1387	0.51	8.37*	1550	22.13
Isocaryophyllene	9.95	1398	0.05	8.06*	1526	[0.46]
β -Caryophyllene	10.16	1414	21.78	8.37*	1550	[22.13]
β -Copaene	10.26	1421	0.19	8.37*	1550	[22.13]
Aromadendrene	10.40	1431	0.04	8.49	1559	0.03
trans- α -Bergamotene	10.46	1436	0.04	8.37*	1550	[22.13]
Isogermacrene D	10.50	1439	0.05	8.77*	1581	[0.11]
α -Humulene	10.58	1444	1.50	9.18*	1614	1.55
allo-Aromadendrene	10.67	1451	0.22	8.90	1591	0.34
cis-Muurola-4(15),5-diene	10.71	1454	0.13	9.23	1618	0.22
(E)- β -Farnesene	10.75	1457	0.77	9.46*†	1637	[1.22]
trans-Cadina-1(6),4-diene	10.88	1467	0.10	9.18*	1614	[1.55]
γ -Muurolene	11.00*	1475	13.80	9.46*†	1637	[1.22]
Germacrene D	11.00*	1475	[13.80]	9.72*	1657	[13.37]
α -Selinene	11.16	1488	0.30	9.82	1666	0.26
α -Muurolene	11.26*	1495	1.95	9.89	1672	0.06
(3Z,6E)- α -Farnesene	11.26*	1495	[1.95]	10.17	1694	1.19
γ -Cadinene	11.42*	1507	1.25	10.30*†	1705	[2.74]
(3E,6E)- α -Farnesene	11.42*	1507	[1.25]	10.41†	1714	1.19
δ -Cadinene	11.55	1518	1.93	10.32*†	1707	[2.74]
trans-Cadina-1,4-diene	11.64	1525	0.09	10.55	1726	0.08
α -Cadinene	11.71	1530	0.15	10.68	1737	0.16

Isocaryophyllene epoxide B	11.86	1542	0.05	12.00	1852	0.04
α-Elemol	11.91	1546	tr	13.85	2024	0.02
(E)-Nerolidol	12.13	1563	0.07	13.64*	2004	0.10
Germacrene D-4-ol	12.20	1568	0.40	13.54	1993	0.42
Caryophyllene oxide	12.24*	1572	0.80	12.64*	1909	0.73
Caryophyllene oxide isomer	12.24*	1572	[0.80]	12.50	1897	0.01
Humulene epoxide II	12.58*	1598	0.19	13.22	1964	0.05
Fokienol	12.58*	1598	[0.19]	14.85	2121	0.02
10-epi-Cubenol	12.68	1606	0.07	13.58	1997	0.04
1-epi-Cubenol	12.85	1620	0.05	13.64*	2004	[0.10]
τ-Cadinol	13.02†	1634	0.42	14.76	2112	0.22
τ-Muurolol	13.03†	1635	[0.42]	14.92	2129	0.29
α-Muurolol	13.09	1640	0.09	15.06	2143	0.07
α-Cadinol	13.18	1648	0.39	15.34	2172	0.39
(3Z)-Caryophylla-3,8(13)-dien-5β-ol	13.40	1665	0.04	16.66	2311	0.03
Unknown [m/z 109, 91 (67), 93 (62), 95 (58), 41 (57), 107 (56)... 220 (6)]	13.55*	1678	0.06	16.74	2319	0.01
Germacra-4(15),5,10(14)-trien-1-ol isomer	13.55*	1678	[0.06]	16.49	2292	0.03
Germacra-4(15),5,10(14)-trien-1α-ol	13.55*	1678	[0.06]	15.84	2223	0.02
Eremophilone	14.14	1728	0.01	16.15	2256	0.01
Phytone	15.46	1844	0.10	14.62*	2098	[0.14]
trans-9-Nonadecene	15.76	1872	0.01	12.64*	1909	[0.73]
Nonadecane	16.09	1902	0.04	12.56*	1902	[0.09]
Geranyl-para-cymene	16.56	1946	0.11	15.90	2230	0.05
Unknown [m/z 41, 69 (95), 109 (41), 95 (39), 55 (36), 121 (36)...]	17.08	1995	0.04			
Unknown [m/z 69, 41 (90), 95 (49), 109 (43), 219 (43), 55 (30)...]	17.42	2028	0.03			
Unknown [m/z 93, 69 (95), 135 (76), 107 (53), 41 (53), 109 (50)... 235 (10)...]	17.82	2068	0.04			
Heneicosane	18.18	2105	0.02	14.62*	2098	[0.14]
6-Methyl-4,6-bis(4-methylpent-3-en-1-yl)cyclohexa-1,3-dienecarbaldehyde?	18.21	2108	0.02	19.13	2593	0.04
Unknown [m/z 69, 41 (38), 151 (36), 123 (34), 82 (24), 43 (23), 109 (21)...]	18.44	2131	0.06	19.94	2691	0.01
Docosane	19.14	2204	0.06	15.63	2201	0.05

Laboratoire
PhytoChemia

Plus que des analyses... des conseils

Pentacosane	21.78	2500	0.01	18.31	2496	0.01
Total identified		96.91%			96.93%	
Total reported		97.83%			97.07%	

*: Two or more compounds are coeluting on this column

[xx]: Duplicate percentage due to coelutions, not taken into account in the consolidated total

t: 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