

Date : April 20, 2018

CERTIFICATE OF ANALYSIS - GC PROFILING

SAMPLE IDENTIFICATION

Internal code : 18D09-PTH1-1-CC

Customer identification : Black Pepper - India - B4010552R

Type : Essential oil

Source : *Piper nigrum*

Customer : Plant Therapy

ANALYSIS

Method: PC-PA-014-17J19 - Analysis of the composition of an essential oil, or other volatile liquid, by FAST GC-FID (in French); identifications validated by GC-MS.

Analyst : Sarah-Eve Tremblay, M. Sc. A., Chimiste

Analysis date : April 18, 2018

Checked and approved by :

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

Note: This report may not be published, including online, without the written consent from Laboratoire PhytoChemia.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

PHYSICOCHEMICAL DATA

Physical aspect: Light yellow liquid

Refractive index: 1.4845 ± 0.0003 (20 °C)

CONCLUSION

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

ANALYSIS SUMMARY

Identification	DB-5 (%)	DB-WAX (%)	Classe
Ethanol	0.03	0.03	Aliphatic alcohol
Acetic acid	tr	0.01	Aliphatic acid
Isovaleral	tr	tr	Aliphatic aldehyde
2-Methylbutyral	tr	tr	Aliphatic aldehyde
Toluene	tr	0.95*	Simple phenolic
Tricyclene	0.01	0.01	Monoterpene
α -Thujene	0.95	[0.95]*	Monoterpene
α -Pinene	7.44	7.43	Monoterpene
Camphene	0.20*	0.18	Monoterpene
α -Fenchene	[0.20]*	0.01	Monoterpene
Thuja-2,4(10)-diene	tr	8.09*	Monoterpene
meta-Cymene	0.02	1.48*	Monoterpene
Sabinene	16.11*	[8.09]*	Monoterpene
β -Pinene	[16.11]*	8.02	Monoterpene
6-Methyl-5-hepten-2-one	0.01	tr	Aliphatic ketone
Myrcene	1.46	[1.48]*	Monoterpene
α -Phellandrene	1.00*	0.97	Monoterpene
Pseudolimonene	[1.00]*	0.04	Monoterpene
Δ^3 -Carene	5.57	5.56	Monoterpene
α -Terpinene	0.11	0.11	Monoterpene
ortho-Cymene	0.02	0.59*	Simple phenolic
para-Cymene	0.55	[0.59]*	Monoterpene
β -Phellandrene	14.61*	1.22*	Monoterpene
1,8-Cineole	[14.61]*	[1.22]*	Monoterpenic ether
Limonene	[14.61]*	13.46	Monoterpene
(Z)- β -Ocimene	0.02	0.03	Monoterpene
(E)- β -Ocimene	0.13	0.13	Monoterpene
Unknown	0.01	tr	Monoterpene
γ -Terpinene	0.33	0.33	Monoterpene
cis-Sabinene hydrate	0.12	0.09	Monoterpenic alcohol
meta-Cymenene	0.94	0.02	Monoterpene
para-Cymenene	[0.94]*	0.01	Monoterpene
Isoterpinolene	[0.94]*	0.08	Monoterpene
Terpinolene	[0.94]*	0.38	Monoterpene
α -Pinene oxide	0.01	0.01	Monoterpenic ether
trans-Sabinene hydrate	0.08	0.36*	Monoterpenic alcohol
Unknown	0.01	0.01	Unknown
Linalool	0.36	[0.36]*	Monoterpenic alcohol
Verbenol analog?	0.01	0.60*	Monoterpenic alcohol
trans-para-Mentha-2,8-dien-1-ol	0.04	0.07	Monoterpenic alcohol
Limona ketone	0.01	0.09	Normonoterpenic ketone
cis-Limonene oxide	0.01	0.01	Monoterpenic ether
cis-para-Mentha-2,8-dien-1-ol	0.04	0.06*	Monoterpenic alcohol
trans-para-Mentha-2-en-1-ol	0.02	0.02	Monoterpenic alcohol
trans-Verbenol	0.03	0.54*	Monoterpenic alcohol
1,4-Dimethyl-4-acetylcyclohexene	0.01	0.01	Monoterpenic ketone
Pinocarvone	tr	0.01	Monoterpenic ketone
Borneol	tr	0.65*	Monoterpenic alcohol

α -Phellandren-8-ol	0.01*	1.88*	Monoterpenic alcohol
Unknown	[0.01]*		Oxygenated monoterpene
<i>cis</i> -Sabinol	0.01	0.01	Monoterpenic alcohol
<i>trans</i> -2-Caren-4-ol?	0.52*		Monoterpenic alcohol
Terpinen-4-ol	[0.52]*	28.43*	Monoterpenic alcohol
meta-Cymen-8-ol	0.02	0.03	Monoterpenic alcohol
Cryptone	0.01	0.01	Normonoterpenic ketone
para-Cymen-8-ol	0.04	0.01	Monoterpenic alcohol
α -Terpineol	0.10	[0.65]*	Monoterpenic alcohol
Myrtenal	0.01	0.01	Monoterpenic aldehyde
Methyl salicylate	0.02*	0.77*	Phenolic ester
Myrtenol	[0.02]*	0.02	Monoterpenic alcohol
<i>trans</i> -Isopiperitenol	0.01	0.09*	Monoterpenic alcohol
α -Phellandrene epoxide	0.02	0.01	Monoterpenic ether
Unknown	0.01	0.25*	Oxygenated monoterpene
Verbenone	0.01	0.39*	Monoterpenic ketone
Car-2-en-4-one?	0.02	[0.06]*	Monoterpenic ketone
<i>trans</i> -Carveol	0.01	0.01	Monoterpenic alcohol
Nerol	0.01	tr	Monoterpenic alcohol
<i>cis</i> -Carveol	0.01	tr	Monoterpenic alcohol
Cuminal	0.01	0.03	Monoterpenic aldehyde
Carvone	0.01	0.48*	Monoterpenic ketone
Car-3-en-2-one	tr	0.04	Monoterpenic ketone
Unknown	0.02	0.02	Unknown
Methyl citronellate	0.01	0.01	Monoterpenic ester
<i>trans</i> -Ascaridole glycol	0.01	0.01	Monoterpenic alcohol
Bornyl acetate	0.01	0.06*	Monoterpenic ester
Cuminol	0.01	0.01	Monoterpenic alcohol
Unknown	0.02		Monoterpenic ester
Car-3-en-5-one	0.02	0.01	Monoterpenic ketone
Unknown	0.01	0.01	Unknown
Limonene hydroperoxide I	0.01		Monoterpenic peroxide
Unknown	0.03	0.21*	Unknown
Myrtenyl acetate	0.01	[0.54]*	Monoterpenic ester
Unknown	0.01		Oxygenated monoterpene
δ -Elemene isomer	0.05*	tr	Sesquiterpene
Bicycloelemene	[0.05]*	0.03	Sesquiterpene
δ -Elemene	1.84	1.88*	Sesquiterpene
α -Cubebene	0.21	0.32	Sesquiterpene
Cyclosativene I	0.08	[1.88]*	Sesquiterpene
α -Copaene	2.62	2.63	Sesquiterpene
<i>cis</i> - β -Elemene	0.03	[0.60]*	Sesquiterpene
β -Cubebene	0.22	0.25	Sesquiterpene
β -Elemene	0.65	[28.43]*	Sesquiterpene
α -Gurjunene	0.10	0.10	Sesquiterpene
Isocaryophyllene	0.03	[0.06]*	Sesquiterpene
β -Caryophyllene	27.04*	[28.43]*	Sesquiterpene
<i>cis</i> - α -Bergamotene	[27.04]*	[0.06]*	Sesquiterpene
β -Copaene	0.25	[0.60]*	Sesquiterpene
<i>trans</i> - α -Bergamotene	0.75	[28.43]*	Sesquiterpene
Unknown	0.08		Sesquiterpene
α -Humulene	1.43	1.49	Sesquiterpene

β-Santalene	0.07*	0.05	Sesquiterpene
allo-Aromadendrene	[0.07]*	0.04	Sesquiterpene
(E)-β-Farnesene	0.56	[0.54]*	Sesquiterpene
trans-Cadina-1(6),4-diene	0.07*	0.05	Sesquiterpene
γ-Gurjunene	[0.07]*	0.02	Sesquiterpene
γ-Murolene	0.05	[0.39]*	Sesquiterpene
α-Amorphene	0.10	0.19	Sesquiterpene
Germacrene D	0.46	[0.65]*	Sesquiterpene
β-Selinene	1.12*	0.84	Sesquiterpene
ar-Curcumene	[1.12]*	0.15	Sesquiterpene
trans-Muurolo-4(15),5-diene	0.12	[0.65]	Sesquiterpene
α-Selinene	0.93*	[0.48]*	Sesquiterpene
Bicyclogermacrene	[0.93]*	1.22	Sesquiterpene
epi-Cubebol	1.16*	0.13	Sesquiterpenic alcohol
Viridiflorene	[1.16]*	[0.39]*	Sesquiterpene
α-Murolene	[1.16]	[0.48]*	Sesquiterpene
β-Bisabolene	1.95	[1.88]*	Sesquiterpene
Cubebol	0.16	0.16	Sesquiterpenic alcohol
7-epi-α-Selinene	0.03	[0.09]*	Sesquiterpene
δ-Cadinene	1.70*	1.44	Sesquiterpene
trans-Calamenene	[1.70]*	0.14	Sesquiterpene
(E)-γ-Bisabolene	0.77	[0.77]*	Sesquiterpene
α-Cadinene	0.04	[0.25]*	Sesquiterpene
α-Calacorene	0.02	0.09*	Sesquiterpene
(E)-α-Bisabolene	0.23	[0.25]*	Sesquiterpene
Isocaryophyllene epoxide B	0.09	[0.09]*	Sesquiterpenic ether
α-Elemol	0.35	0.31	Sesquiterpenic alcohol
Unknown	0.02	0.02	Aliphatic alcohol
(E)-Nerolidol	0.20	0.22	Sesquiterpenic alcohol
β-Calacorene	0.01	0.19*	Sesquiterpene
Spathulenol	1.15*	0.09	Sesquiterpenic alcohol
Caryophyllene oxide	[1.15]*	0.89	Sesquiterpenic ether
Caryophyllene oxide isomer	[1.15]*	[0.19]*	Sesquiterpenic ether
Unknown	0.01	0.01	Oxygenated sesquiterpene
Humulene epoxide I	0.03	0.02	Sesquiterpenic ether
Humulene epoxide II	0.07	0.06	Sesquiterpenic ether
α-Corocalene	0.04	0.02	Sesquiterpene
Guaia-6,10(14)-dien-4β-ol	0.03	0.11	Sesquiterpenic alcohol
Caryophylladienol I	0.13	0.07*	Sesquiterpenic alcohol
Caryophylladienol II	0.05	[0.07]*	Sesquiterpenic alcohol
τ-Cadinol	0.08*	0.03	Sesquiterpenic alcohol
τ-Muurolo	[0.08]*	0.06	Sesquiterpenic alcohol
α-Muurolo	0.23	[0.21]*	Sesquiterpenic alcohol
cis-Calamenen-10-ol	0.01	0.02	Sesquiterpenic alcohol
(3Z)-Caryophylla-3,8(13)-dien-5β-ol	0.05	0.03	Sesquiterpenic alcohol
Unknown	0.07	0.06	Oxygenated sesquiterpene
α-Bisabolol	0.09	0.14	Sesquiterpenic alcohol
Unknown	0.01	0.05	Oxygenated sesquiterpene
Total identified	98.16%	97.88%	

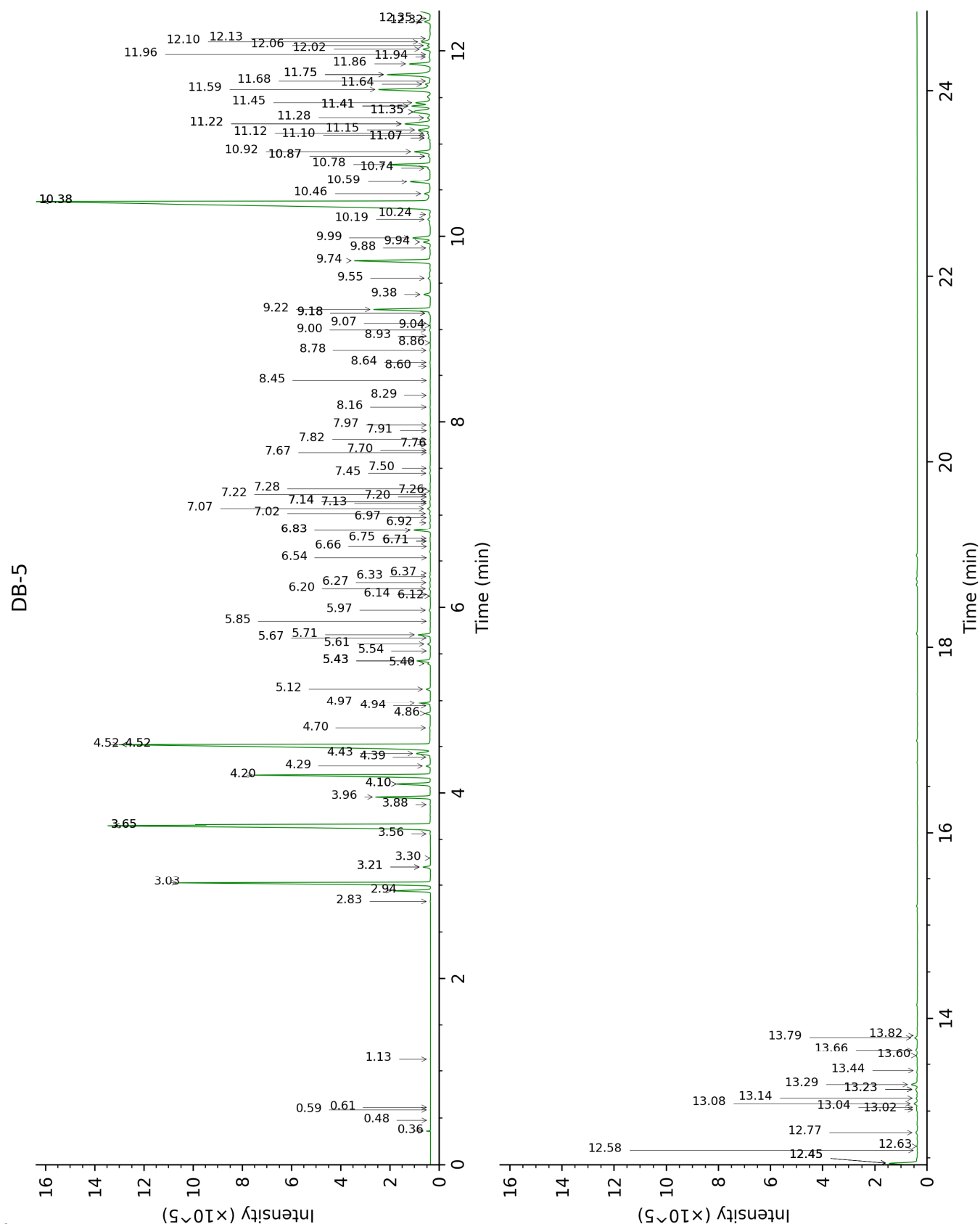
*: Two or more compounds are coeluting on this column

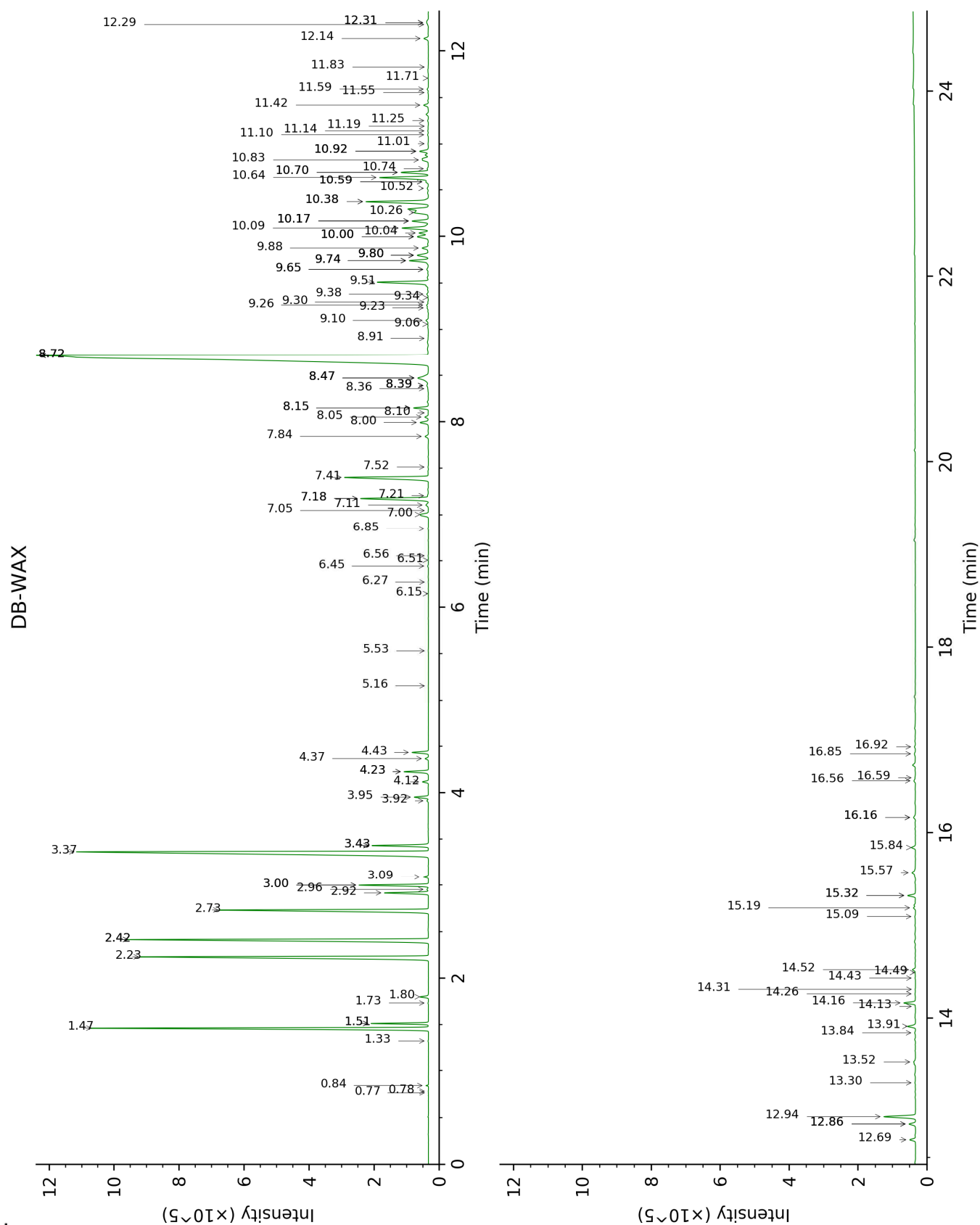
[xx]: Duplicate percentage due to coelutions, not taken account in the identified total

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

Note: no correction factor was applied

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	0.36	496	0.03	0.84	903	0.03
Acetic acid	0.48	598	tr	6.85	1413	0.01
Isovaleral	0.59	639	tr	0.78	884	tr
2-Methylbutyral	0.61	648	tr	0.76	878	tr
Toluene	1.13	754	tr	1.52*	1004	0.95
Tricyclene	2.83	914	0.01	1.33	977	0.01
α -Thujene	2.94	922	0.95	1.52*	1004	[0.95]
α -Pinene	3.03	928	7.44	1.46	998	7.43
Camphene	3.21*	940	0.20	1.80	1031	0.18
α -Fenchene	3.21*	940	[0.20]	1.73	1024	0.01
Thuja-2,4(10)-diene	3.30	946	tr	2.42*	1089	8.09
meta-Cymene	3.56	963	0.02	3.00*	1136	1.48
Sabinene	3.65*	969	16.11	2.42*	1089	[8.09]
β -Pinene	3.65*	969	[16.11]	2.23	1072	8.02
6-Methyl-5-hepten-2-one	3.88	984	0.01	5.16	1292	tr
Myrcene	3.96	990	1.46	3.00*	1136	[1.48]
α -Phellandrene	4.10*	999	1.00	2.92	1129	0.97
Pseudolimonene	4.10*	999	[1.00]	2.96	1132	0.04
Δ^3 -Carene	4.20	1005	5.57	2.73	1115	5.56
α -Terpinene	4.29	1011	0.11	3.09	1143	0.11
ortho-Cymene	4.39	1017	0.02	4.23*	1227	0.59
para-Cymene	4.43	1020	0.55	4.23*	1227	[0.59]
β -Phellandrene	4.52*	1026	14.61	3.43*	1168	1.22
1,8-Cineole	4.52*	1026	[14.61]	3.43*	1168	[1.22]
Limonene	4.52*	1026	[14.61]	3.37	1163	13.46
(Z)- β -Ocimene	4.70	1037	0.02	3.92	1205	0.03
(E)- β -Ocimene	4.86	1047	0.13	4.12	1219	0.13
Unknown [m/z 41, 69 (97), 95 (33), 67 (31), 53 (18)...]	4.94	1052	0.01	6.15	1362	tr
γ -Terpinene	4.97	1054	0.33	3.95	1207	0.33
cis-Sabinene hydrate	5.12	1064	0.12	7.11	1433	0.09
meta-Cymenene	5.40††	1081	0.94	6.44	1384	0.02
para-Cymenene	5.43*††	1083	[0.94]	6.51	1388	0.01
Isoterpinolene	5.43*††	1083	[0.94]	4.37	1237	0.08
Terpinolene	5.43*††	1083	[0.94]	4.44	1241	0.38
α -Pinene oxide	5.54	1089	0.01	5.53	1318	0.01
trans-Sabinene hydrate	5.61	1094	0.08	8.15*	1511	0.36
Unknown [m/z 109, 43 (65), 95 (54), 119 (50), 91 (47)... 149 (8)...]	5.68	1098	0.01	6.27	1371	0.01
Linalool	5.71	1100	0.36	8.15*	1511	[0.36]
Verbenol analog?	5.85	1110	0.01	8.47*	1536	0.60

<i>trans</i> -para-Mentha-2,8-dien-1-ol	5.97	1117	0.04	9.10	1585	0.07
Limona ketone	6.12	1127	0.01	8.05	1503	0.09
<i>cis</i> -Limonene oxide	6.14	1128	0.01	6.56	1392	0.01
<i>cis</i> -para-Mentha-2,8-dien-1-ol	6.20	1132	0.04	9.65*	1629	0.06
<i>trans</i> -para-Menth-2-en-1-ol	6.27	1136	0.02	9.06	1582	0.02
<i>trans</i> -Verbenol	6.33	1140	0.03	9.74*	1637	0.54
1,4-Dimethyl-4-acetylcyclohexene	6.37	1142	0.01	7.52	1463	0.01
Pinocarvone	6.54	1153	tr	8.10	1507	0.01
Borneol	6.66	1161	tr	10.00*†	1658	0.65
α-Phellandren-8-ol	6.71*	1164	0.01	10.38*	1688	1.88
Unknown [m/z 109, 79 (18), 81 (15), 91 (12), 77 (10)... 152 (3)]	6.71*	1164	[0.01]			
<i>cis</i> -Sabinol	6.74	1166	0.01	11.01	1742	0.01
<i>trans</i> -2-Caren-4-ol?	6.83*	1172	0.52			
Terpinen-4-ol	6.83*	1172	[0.52]	8.72*	1555	28.43
meta-Cymen-8-ol	6.92	1178	0.02	11.59	1792	0.03
Cryptone	6.98	1181	0.01	9.34	1604	0.01
para-Cymen-8-ol	7.02	1184	0.04	11.71	1802	0.01
α-Terpineol	7.07	1187	0.10	10.00*†	1658	[0.65]
Myrtenal	7.13	1191	0.01	8.91	1570	0.01
Methyl salicylate	7.14*	1192	0.02	10.70*	1715	0.77
Myrtenol	7.14*	1192	[0.02]	11.10	1750	0.02
<i>trans</i> -Isopiperitenol	7.20	1195	0.01	10.59*	1706	0.09
α-Phellandrene epoxide	7.22	1197	0.02	11.14	1753	0.01
Unknown [m/z 109, 91 (100), 81 (88), 94 (75), 119 (74), 96 (73), 41 (63)... 150 (2)]	7.26	1199	0.01	10.92*	1735	0.25
Verbenone	7.28	1201	0.01	9.80*	1641	0.39
Car-2-en-4-one?	7.45	1212	0.02	9.65*	1629	[0.06]
<i>trans</i> -Carveol	7.50	1216	0.01	11.56	1788	0.01
Nerol	7.67	1227	0.01	11.19	1758	tr
<i>cis</i> -Carveol	7.70	1228	0.01	11.83	1812	tr
Cuminal	7.76	1233	0.01	10.74	1719	0.03
Carvone	7.82	1236	0.01	10.17*	1671	0.48
Car-3-en-2-one	7.91	1243	tr	10.52	1700	0.04
Unknown [m/z 43, 97 (69), 107 (46), 41 (28), 55 (21), 109 (20)...]	7.97	1247	0.02	11.25	1763	0.02
Methyl citronellate	8.16	1260	0.01	8.36	1527	0.01

<i>trans</i> -Ascaridole glycol	8.29	1268	0.01	14.31	2041	0.01
Bornyl acetate	8.45	1279	0.01	8.39*	1530	0.06
Cuminol	8.60	1289	0.01	14.43	2053	0.01
Unknown [m/z 93, 43 (60), 108 (58), 69 (36), 41 (35)... 150 (5), 184 (1)]	8.64	1292	0.02			
Car-3-en-5-one	8.78	1301	0.02	12.29	1853	0.01
Unknown [m/z 43, 111 (84), 109 (71), 126 (70)...]	8.86	1306	0.01	14.49	2058	0.01
Limonene hydroperoxide I	8.93	1312	0.01			
Unknown [m/z 111, 126 (93), 43 (90), 71 (60)...]	9.00	1316	0.03	15.32*	2140	0.21
Myrtenyl acetate	9.04	1320	0.01	9.74*	1637	[0.54]
Unknown [m/z 91, 79 (94), 77 (72), 41 (37), 93 (31)... 152 (1)]	9.07	1321	0.01			
δ-Elemene isomer	9.18*	1329	0.05	7.05	1428	tr
Bicycloelemene	9.18*	1329	[0.05]	7.21	1440	0.03
δ-Elemene	9.22	1332	1.84	7.18*	1438	1.88
α-Cubebene	9.38	1343	0.21	7.00	1425	0.32
Cyclosativene I	9.55	1355	0.08	7.18*	1438	[1.88]
α-Copaene	9.74	1369	2.62	7.40	1455	2.63
<i>cis</i> -β-Elemene	9.88	1378	0.03	8.47*	1536	[0.60]
β-Cubebene	9.94	1383	0.22	8.00	1499	0.25
β-Elemene	9.99	1386	0.65	8.72*	1555	[28.43]
α-Gurjunene	10.18	1400	0.10	7.84	1488	0.10
Isocaryophyllene	10.24	1404	0.03	8.39*	1530	[0.06]
β-Caryophyllene	10.38*	1414	27.04	8.72*	1555	[28.43]
<i>cis</i> -α-Bergamotene	10.38*	1414	[27.04]	8.39*	1530	[0.06]
β-Copaene	10.46	1420	0.25	8.47*	1536	[0.60]
<i>trans</i> -α-Bergamotene	10.59	1430	0.75	8.72*	1555	[28.43]
Unknown [m/z 139, 69 (60), 41 (51), 43 (47), 119 (41)... 204 (1)]	10.74	1441	0.08			
α-Humulene	10.78	1444	1.43	9.51	1618	1.49
β-Santalene	10.87*	1451	0.07	9.26	1598	0.05
allo-Aromadendrene	10.87*	1451	[0.07]	9.23	1595	0.04
(<i>E</i>)-β-Farnesene	10.92	1454	0.56	9.74*	1637	[0.54]
<i>trans</i> -Cadina-1(6),4-diene	11.07*	1465	0.07	9.38	1607	0.05
γ-Gurjunene	11.07*	1465	[0.07]	9.30	1600	0.02
γ-Murolene	11.10	1468	0.05	9.80*	1641	[0.39]
α-Amorphene	11.12	1469	0.10	9.88	1648	0.19

Germacrene D	11.15	1472	0.46	10.00*†	1658	[0.65]
β-Selinene	11.22*	1477	1.12	10.09	1665	0.84
ar-Curcumene	11.22*	1477	[1.12]	10.83	1727	0.15
trans-Muurola-4(15),5-diene	11.28	1481	0.12	10.04†	1661	[0.65]
α-Selinene	11.35*	1486	0.93	10.17*	1671	[0.48]
Bicyclogermacrene	11.35*	1486	[0.93]	10.26	1679	1.22
epi-Cubebol	11.41*†	1491	1.16	12.14	1840	0.13
Viridiflorene	11.41*†	1491	[1.16]	9.80*	1641	[0.39]
α-Muurolene	11.45†	1494	[1.16]	10.17*	1671	[0.48]
β-Bisabolene	11.59	1504	1.95	10.38*	1688	[1.88]
Cubebol	11.64	1509	0.16	12.69	1889	0.16
7-epi-α-Selinene	11.68	1511	0.03	10.59*	1706	[0.09]
δ-Cadinene	11.75*	1517	1.70	10.64	1711	1.44
trans-Calamenene	11.75*	1517	[1.70]	11.42	1777	0.14
(E)-γ-Bisabolene	11.86	1526	0.77	10.70*	1715	[0.77]
α-Cadinene	11.94	1532	0.04	10.92*	1735	[0.25]
α-Calacorene	11.96	1534	0.02	12.31*	1855	0.09
(E)-α-Bisabolene	12.02	1538	0.23	10.92*	1735	[0.25]
Isocaryophyllene epoxide B	12.06	1541	0.09	12.31*	1855	[0.09]
α-Elemol	12.10	1544	0.35	14.16	2027	0.31
Unknown [m/z 91, 41 (97), 107 (96), 93 (95), 133 (88), 69 (88), 149 (84)... 218 (19)]	12.13	1547	0.02	14.26	2036	0.02
(E)-Nerolidol	12.32	1561	0.20	13.91	2002	0.22
β-Calacorene	12.35	1564	0.01	12.86*	1905	0.19
Spathulenol	12.44*	1571	1.15	14.52	2062	0.09
Caryophyllene oxide	12.44*	1571	[1.15]	12.94	1912	0.89
Caryophyllene oxide isomer	12.44*	1571	[1.15]	12.86*	1905	[0.19]
Unknown [m/z 161, 105 (84), 43 (80), 119 (72), 93 (62), 121 (54)... 204 (38), 222 (2)]	12.58	1582	0.01	14.13	2023	0.01
Humulene epoxide I	12.63	1586	0.03	13.30	1946	0.02
Humulene epoxide II	12.77	1597	0.07	13.52	1966	0.06
α-Corocalene	13.02	1617	0.04	13.84	1996	0.02
Guaia-6,10(14)-dien-4β-ol	13.04	1619	0.03	15.84	2193	0.11
Caryophylladienol I	13.08	1622	0.13	16.16*	2227	0.07
Caryophylladienol II	13.14	1627	0.05	16.16*	2227	[0.07]
τ-Cadinol	13.23*	1635	0.08	15.09	2118	0.03
τ-Muurolol	13.23*	1635	[0.08]	15.19	2127	0.06

α -Muurolol	13.29	1639	0.23	15.32*	2140	[0.21]
<i>cis</i> -Calamenen-10-ol	13.44	1651	0.01	16.59	2272	0.02
(3 <i>Z</i>)-Caryophylla-3,8(13)-dien-5 β -ol	13.60	1665	0.05	16.92	2307	0.03
Unknown [m/z = 159, 145 (84), 202 (71), 91 (55), 131 (51)... 220 (1)]	13.66	1670	0.07	16.56	2268	0.06
α -Bisabolol	13.79	1681	0.09	15.57	2166	0.14
Unknown [m/z 43, 108 (62), 93 (51), 41 (42), 109 (37), 69 (36)...]	13.82	1683	0.01	16.85	2299	0.05
Total identified	98.16%			97.88%		
Total reported	98.48%			98.06%		

*: Two or more compounds are coeluting on this column

[xx]: Duplicate percentage due to coelutions, not taken account in the identified 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