

Date : April 11, 2019

CERTIFICATE OF ANALYSIS – GC PROFILING

SAMPLE IDENTIFICATION

Internal code : 19D08-HZA01-1-SCC

Customer identification : Pelargonium x Asperum - Madagascar - AGB/ABT/086056/M19

Type : Essential oil

Source : *Pelargonium x asperum* ct. Madagascar

Customer : Hunzarama Inc.

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 : Alexis St-Gelais, M. Sc., chimiste

Analysis date : April 11, 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: 1.4661 ± 0.0003 (20 °C)

CONCLUSION

Aucun adultérant, contaminant ou diluant n'a été détecté avec cette méthode.

ANALYSIS SUMMARY

Identification	DB-5 (%)	DB-WAX (%)	Classe
Acetic acid	tr	0.17*	Aliphatic acid
2-Methyl-3-buten-2-ol	tr	tr	Aliphatic alcohol
Isovaleral	tr	tr	Aliphatic aldehyde
2-Methylbutyral	tr	tr	Aliphatic aldehyde
Isoamyl alcohol	0.01	0.01*	Aliphatic alcohol
2-Methylbutanol	tr	[0.01]*	Aliphatic alcohol
Toluene	tr	tr	Simple phenolic
Isoamyl formate	tr	0.01*	Aliphatic ester
Hexanal	tr	tr	Aliphatic aldehyde
Dimethyl sulfoxide	0.01	0.02	Aliphatic sulfoxide
3-Methylpentanol	0.03	0.07*	Aliphatic alcohol
Unknown	0.01	[0.01]*	Unknown
(3Z)-Hexenol	0.02	0.04*	Aliphatic alcohol
Hexanol	0.01	0.37*	Aliphatic alcohol
Unknown	0.01	0.01	Unknown
3-Methylpentyl formate?	0.02	0.02	Aliphatic ester
Hashishene	0.01	tr	Monoterpene
Tricyclene	0.01	0.01	Monoterpene
α -Pinene	0.31	0.32	Monoterpene
Unknown	0.02	0.02	Simple phenolic
Camphepane	0.01	[0.01]*	Monoterpene
Thuja-2,4(10)-diene	tr	0.01*	Monoterpene
Geranic oxide	0.02	0.02	Monoterpenic ether
Sabinene	0.02*	[0.01]*	Monoterpene
β -Pinene	[0.02]*	0.02	Monoterpene
Octen-3-ol	0.04	0.03	Aliphatic alcohol
6-Methyl-5-hepten-2-one	0.05	[0.07]*	Aliphatic ketone
trans-Dehydroxylinalool oxide	0.01	0.03	Monoterpenic ether
Myrcene	0.16	0.14	Monoterpene
6-Methyl-5-hepten-2-ol	0.01	0.01	Aliphatic alcohol
α -Phellandrene	0.08	0.08	Monoterpene
cis-Dehydroxylinalool oxide	0.02	0.02*	Monoterpenic ether
Δ 3-Carene	0.02	0.01	Monoterpene
α -Terpinene	0.01	0.01	Monoterpene
para-Cymene	0.07	0.06	Monoterpene
β -Phellandrene	0.22*	0.08*	Monoterpene
Limonene	[0.22]*	0.12	Monoterpene
1,8-Cineole	[0.22]*	[0.08]*	Monoterpenic ether
Unknown	0.02	0.02	Unknown
Benzeneacetaldehyde	0.01	0.38*	Simple phenolic
(Z)- β -Ocimene	0.11	0.10	Monoterpene
(E)- β -Ocimene	0.09	0.08	Monoterpene
2,6-Dimethyl-5-heptenal (melonal)	0.01*	tr	Aliphatic aldehyde
Unknown	[0.01]*	0.01	Unknown
γ -Terpinene	0.01	[0.02]*	Monoterpene
Unknown	0.01	0.02	Oxygenated monoterpene
cis-Linalool oxide (fur.)	0.11	0.11	Monoterpenic alcohol
Fenchone	0.01	[0.04]*	Aliphatic alcohol

<i>trans</i> -Linalool oxide (fur.)	0.07*	0.06	Monoterpnic alcohol
para-Cymenene	[0.07]*	0.01	Monoterpane
Terpinolene	[0.07]*	0.03	Monoterpane
Rosefuran	0.03	0.03	Monoterpnic ether
Linalool	3.49	3.42	Monoterpnic alcohol
(Z)-6-Methyl-3,5-heptadien-2-one	0.02*	0.01	Aliphatic ketone
Nonanal	[0.02]*	0.01	Aliphatic aldehyde
<i>cis</i> -Rose oxide	0.88*	0.88	Monoterpnic ether
Phenylethyl alcohol	[0.88]*	0.02	Simple phenolic
<i>trans</i> -Rose oxide	0.37	[0.37]*	Monoterpnic ether
Unknown	0.05	0.04	Unknown
Unknown	0.03	0.04	Oxygenated normonoterpane
neo-Isopulegol	0.07	0.07*	Monoterpnic alcohol
Menthone	0.17	[0.17]*	Monoterpnic ketone
Citronellal	0.15	6.85*	Monoterpnic aldehyde
Isomenthone	6.70	[6.85]*	Monoterpnic ketone
neo-Menthol	0.05	6.89*	Monoterpnic alcohol
Terpinen-4-ol	0.04	[6.89]*	Monoterpnic alcohol
Menthol	0.02	0.03	Monoterpnic alcohol
Isomenthol	0.17	0.17	Monoterpnic alcohol
para-Cymen-8-ol	0.06	0.08	Monoterpnic alcohol
α -Terpineol	0.24	1.97*	Monoterpnic alcohol
β -Cyclocitral?	0.03	0.02	Monoterpnic aldehyde
Nerol	23.19	0.80	Monoterpnic alcohol
Citronellol	[23.19]	22.25*	Monoterpnic alcohol
Neral	0.34*	0.50*	Monoterpnic aldehyde
(Z)-Isogeraniol	[0.34]*	0.03	Monoterpnic alcohol
Piperitone	0.02	7.04*	Monoterpnic ketone
(E)-Isogeraniol?	0.07	0.50*	Monoterpnic alcohol
Geraniol	13.47	13.33	Monoterpnic alcohol
Geranial	0.82	0.80	Monoterpnic aldehyde
Citronellyl formate	11.48	11.55	Monoterpnic ester
Neryl formate	0.22	0.75	Monoterpnic ester
Geranyl formate	6.94	[7.04]*	Monoterpnic ester
(3Z)-Hexenyl tiglate	0.05	0.07	Aliphatic ester
Methyl geranate	0.02	[1.97]*	Monoterpnic ester
α -Cubebene	0.11	0.10	Sesquiterpene
Phenylethyl propionate	0.06	0.03	Phenolic ester
Citronellyl acetate	0.27	[0.50]*	Monoterpnic ester
Neryl acetate	0.12	0.16	Monoterpnic ester
α -Ylangene	0.13	[6.85]*	Sesquiterpene
α -Copaene	0.32	0.33	Sesquiterpene
β -Bourbonene	1.03*	0.94	Sesquiterpene
1,5-diepi- β -Bourbonene	[1.03]*	0.07	Sesquiterpene
Geranyl acetate	0.40	0.42	Monoterpnic ester
β -Cubebene	0.04	0.06	Sesquiterpene
β -Elemene	0.27	1.89*	Sesquiterpene
Phenylethyl isobutyrate	[0.27]	0.01	Phenolic ester
Isocaryophyllene	0.02	[0.07]*	Sesquiterpene
β -Caryophyllene	1.17	[1.89]*	Sesquiterpene
β -Copaene	0.11	0.15	Sesquiterpene
Heptyl tiglate	0.02		Aliphatic ester

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<i>trans</i> - α -Bergamotene	0.70*	[1.89]*	Sesquiterpene
α -Guaiene	[0.70]*	0.01	Sesquiterpene
6,9-Guaadiene	6.96	[6.89]*	Sesquiterpene
Citronellyl propionate	0.84*	0.39	Monoterpenic ester
Unknown	[0.84]*	[0.38]*	Sesquiterpene
α -Humulene	0.29	0.26	Sesquiterpene
allo-Aromadendrene	0.17	0.20	Sesquiterpene
<i>trans</i> -Cadina-1(6),4-diene	0.28*	0.16	Sesquiterpene
γ -Muurolene	[0.28]*	0.10	Sesquiterpene
Geranyl propionate	2.72*	1.07	Monoterpenic ester
Germacrene D	[2.72]*	[1.97]*	Sesquiterpene
β -Selinene	0.17	[7.04]*	Sesquiterpene
Phenylethyl isovalerate	0.44*	0.05	Phenolic ester
γ -Amorphene	[0.44]*	0.16	Sesquiterpene
Viridiflorene	[0.44]*	0.21	Sesquiterpene
Bicyclogermacrene	0.10	0.07	Sesquiterpene
α -Muurolene	0.17	0.15	Sesquiterpene
δ -Guaiene	0.13	[7.04]*	Sesquiterpene
β -Dihydroagarofuran	0.06	0.45*	Sesquiterpenic ether
γ -Cadinene	0.22	[0.45]*	Sesquiterpene
7-epi- α -Selinene	0.34	0.11	Sesquiterpene
Geranyl isobutyrate	0.15	[0.50]*	Monoterpenic ester
<i>trans</i> -Calamenene	0.61*	[0.50]*	Sesquiterpene
δ -Cadinene	[0.61]*	0.50	Sesquiterpene
<i>trans</i> -Cadina-1,4-diene	0.04	0.08	Sesquiterpene
Citronellyl butyrate	0.52	0.49	Monoterpenic ester
Phenylethyl angelate?	0.05*	0.03	Phenolic ester
α -Cadinene	[0.05]*	[22.25]*	Sesquiterpene
α -Agarofuran	0.05	0.10	Sesquiterpenic ether
Europelargone isomer	0.12	0.09	Sesquiterpenic ketone
1-nor-Bourbonanone	0.02	0.01	Norsesquiterpenic ketone
Geranyl butyrate	1.05	1.03	Monoterpenic ester
Spathulenol	0.06	0.09	Sesquiterpenic alcohol
Caryophyllene oxide	0.28	0.34	Sesquiterpenic ether
Phenylethyl tiglate	1.39*	0.65	Phenolic ester
Europelargone A	[1.39]*	0.71	Sesquiterpenic ketone
Geranyl 2-methylbutyrate?	0.02	0.40*	Monoterpenic ester
Geranyl isovalerate	0.42	[0.40]*	Monoterpenic ester
10-epi- γ -Eudesmol	0.28*	0.06	Sesquiterpenic alcohol
10-epi-Cubenol	[0.28]*	0.34*	Sesquiterpenic alcohol
Neryl angelate?	0.11*		Monoterpenic ester
1-epi-Cubenol	[0.11]*	[0.34]*	Sesquiterpenic alcohol
γ -Eudesmol	0.05	0.03	Sesquiterpenic alcohol
Citronellyl valerate?	0.02	0.01	Monoterpenic ester
τ -Muurolol	0.15*	0.04	Sesquiterpenic alcohol
τ -Cadinol	[0.15]*	0.05	Sesquiterpenic alcohol
Unknown	[0.15]*	0.01	Oxygenated sesquiterpene
β -Eudesmol	0.08*	0.02	Sesquiterpenic alcohol
α -Muurolol	[0.08]*	0.06	Sesquiterpenic alcohol
α -Cadinol	0.09	0.08	Sesquiterpenic alcohol
Geranyl valerate	0.14*	0.07	Monoterpenic ester
<i>cis</i> -Calamenen-10-ol	[0.14]*	0.04	Sesquiterpenic alcohol

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Citronellyl tiglate	0.41	0.46	Monoterpenic ester
Citronellyl 4-methylvalerate	0.11		Monoterpenic ester
3β,4β-Oxidoagarofuran?	0.08	0.04	Sesquiterpenic ether
Geranyl tiglate	1.79	1.80	Monoterpenic ester
Geranyl 4-methylvalerate?	0.04	0.01	Monoterpenic ester
Citronellyl caproate	0.21		Monoterpenic ester
Geranyl caproate	0.08	0.12	Monoterpenic ester
Citronellyl heptanoate	0.04		Monoterpenic ester
Phytone	0.02	0.02	Terpenic ketone
Geranyl heptanoate	0.06	0.05*	Monoterpenic ester
Citronellyl caprylate	0.05		Monoterpenic ester
Geranyl caprylate	0.06	[0.05]*	Monoterpenic ester
Total identified	97.02%	95.93%	

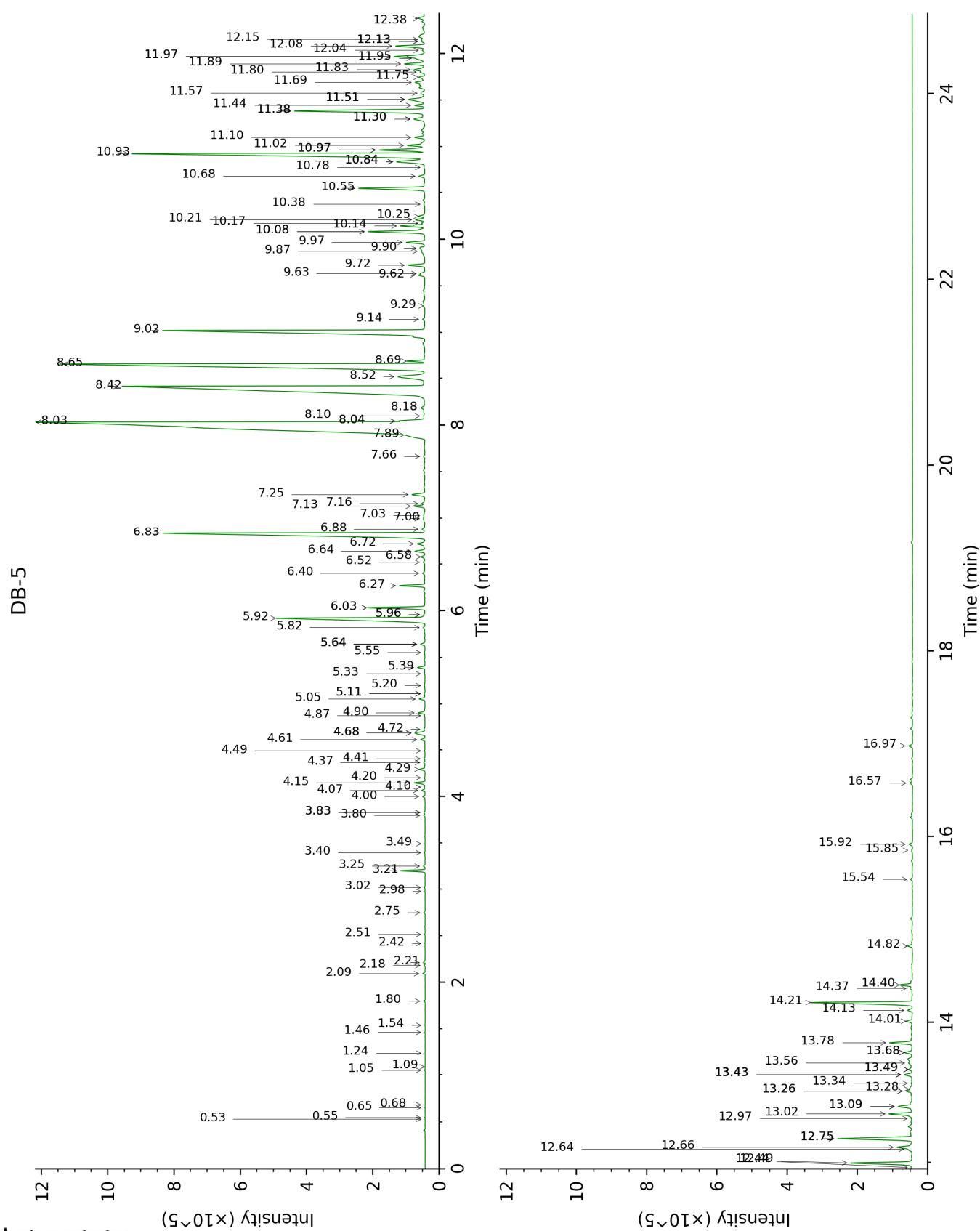
*: Two or more compounds are coeluting on this column

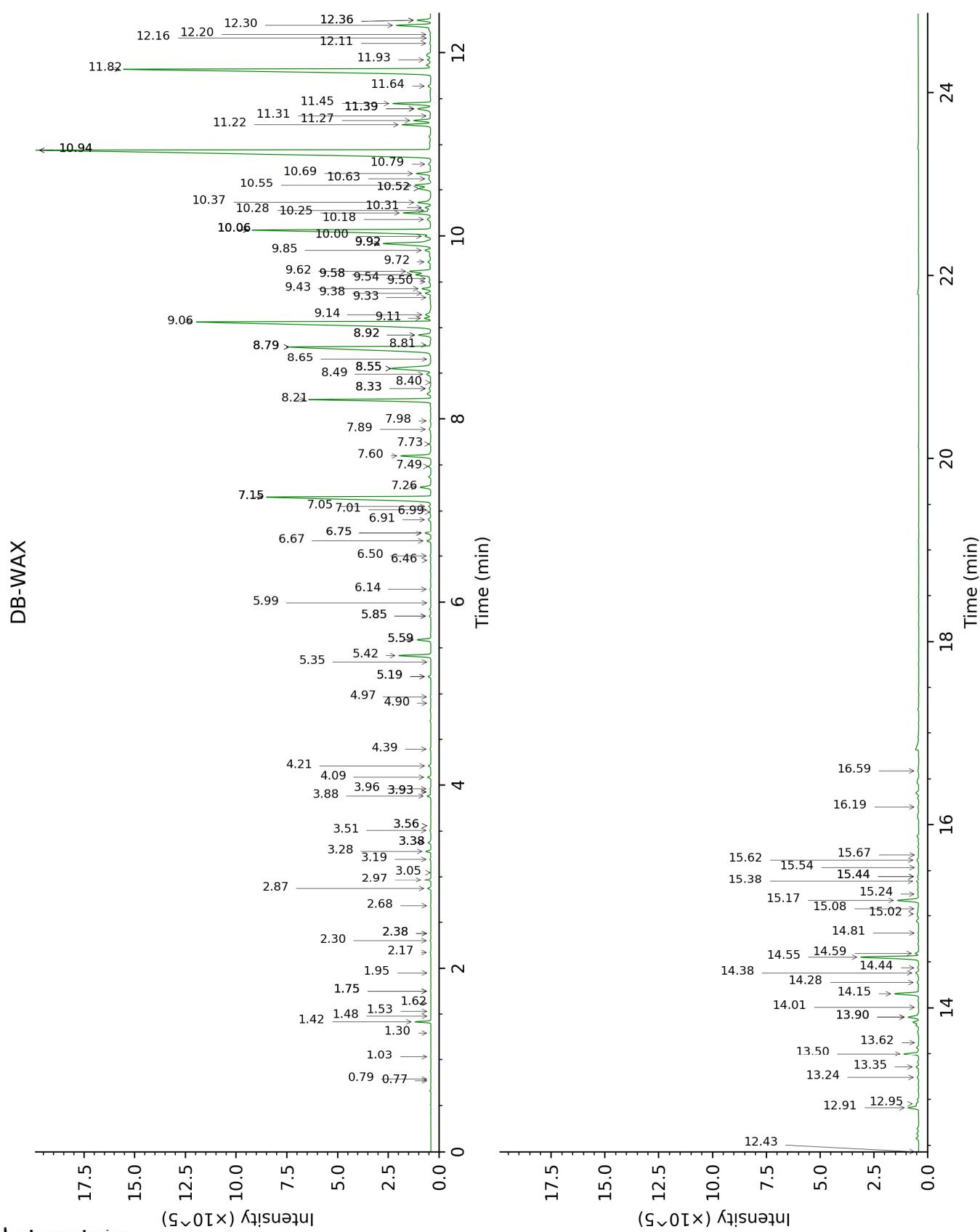
[xx]: Duplicate percentage due to coelutions, not taken account in the identified total

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

Note: no correction factor was applied

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FULL ANALYSIS DATA

Identification	Column DB-5			Column DB-WAX		
	R.T	R.I	%	R.T	R.I	%
Acetic acid	0.53	601	tr	6.75*	1409	0.17
2-Methyl-3-buten-2-ol	0.55	608	tr	1.62	1012	tr
Isovaleral	0.65	642	tr	0.79	887	tr
2-Methylbutyral	0.68	652	tr	0.77	880	tr
Isoamyl alcohol	1.05	731	0.01	3.56*	1178	0.01
2-Methylbutanol	1.09	736	tr	3.56*	1178	[0.01]
Toluene	1.24	757	tr	1.53	1003	tr
Isoamyl formate	1.46	787	tr	1.75*	1024	0.01
Hexanal	1.54	798	tr	1.95	1044	tr
Dimethyl sulfoxide	1.80	821	0.01	7.98	1500	0.02
3-Methylpentanol	2.09	845	0.03	5.19*	1297	0.07
Unknown [m/z 109, 43 (28), 124 (28), 41 (14), 55 (11), 79 (9), 81 (8)...]	2.18	852	0.01	1.75*	1024	[0.01]
(3Z)-Hexenol	2.21	854	0.02	5.85*	1344	0.04
Hexanol	2.42	871	0.01	5.59*	1325	0.37
Unknown [m/z 81, 79 (20), 80 (12), 82 (9)... 124 (7)]	2.51	879	0.01	1.03	929	0.01
3-Methylpentyl formate?	2.75	898	0.02	3.19	1150	0.02
Hashishene	2.98	914	0.01	1.48	998	tr
Tricyclene	3.02	917	0.01	1.30	971	0.01
α -Pinene	3.20	929	0.31	1.42	991	0.32
Unknown [m/z 122, 121 (36), 107 (33), 79 (27), 93 (25), 77 (25), 43 (20)]	3.25	932	0.02	3.96	1208	0.02
Camphene	3.40	942	0.01	1.75*	1024	[0.01]
Thuja-2,4(10)-diene	3.49	948	tr	2.38*	1086	0.01
Geranic oxide	3.80	968	0.02	2.30	1078	0.02
Sabinene	3.83*	970	0.02	2.38*	1086	[0.01]
β -Pinene	3.83*	970	[0.02]	2.17	1066	0.02
Octen-3-ol	4.00	982	0.04	6.99	1426	0.03
6-Methyl-5-hepten-2-one	4.07	986	0.05	5.19*	1297	[0.07]
<i>trans</i> -Dehydroxylinalool oxide	4.10	988	0.01	3.51	1175	0.03
Myrcene	4.15	991	0.16	2.97	1133	0.14
6-Methyl-5-hepten-2-ol	4.20	995	0.01	7.01	1428	0.01
α -Phellandrene	4.29	1001	0.08	2.87	1125	0.08
<i>cis</i> -Dehydroxylinalool oxide	4.37	1006	0.02	3.93*	1206	0.02
Δ^3 -Carene	4.41	1008	0.02	2.68	1111	0.01

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α -Terpinene	4.49	1014	0.01	3.05	1139	0.01
para-Cymene	4.61	1021	0.07	4.21	1226	0.06
β -Phellandrene	4.68*	1026	0.22	3.38*	1164	0.08
Limonene	4.68*	1026	[0.22]	3.28	1157	0.12
1,8-Cineole	4.68*	1026	[0.22]	3.38*	1164	[0.08]
Unknown [m/z 59, 43 (12), 109 (11), 41 (10), 127 (8)...]	4.72	1028	0.02	6.50	1390	0.02
Benzeneacetaldehyde	4.87	1037	0.01	8.92*	1572	0.38
(Z)- β -Ocimene	4.90	1039	0.11	3.88	1203	0.10
(E)- β -Ocimene	5.06	1049	0.09	4.09	1217	0.08
2,6-Dimethyl-5-heptenal (melonal)	5.11*	1053	0.01	5.35	1308	tr
Unknown [m/z 125, 69 (75), 41 (34), 55 (25), 93 (22)... 140 (3)]	5.11*	1053	[0.01]	4.90	1275	0.01
γ -Terpinene	5.20	1058	0.01	3.93*	1206	[0.02]
Unknown [m/z 79, 93 (60), 43 (40), 94 (35), 137 (33), 77 (26), 91 (20), 152 (18)]	5.33	1066	0.01	4.97	1280	0.02
cis-Linalool oxide (fur.)	5.39	1070	0.11	6.67	1402	0.11
Fenchone	5.55	1080	0.01	5.85*	1344	[0.04]
trans-Linalool oxide (fur.)	5.64*	1086	0.07	7.05	1431	0.06
para-Cymenene	5.64*	1086	[0.07]	6.46	1387	0.01
Terpinolene	5.64*	1086	[0.07]	4.39	1239	0.03
Rosefuran	5.82	1097	0.03	6.14	1364	0.03
Linalool	5.92	1104	3.49	8.21	1518	3.42
(Z)-6-Methyl-3,5-heptadien-2-one	5.96*	1106	0.02	8.40	1532	0.01
Nonanal	5.96*	1106	[0.02]	5.99	1354	0.01
cis-Rose oxide	6.03*	1111	0.88	5.42	1313	0.88
Phenylethyl alcohol	6.03*	1111	[0.88]	12.20	1844	0.02
trans-Rose oxide	6.27	1126	0.37	5.59*	1325	[0.37]
Unknown [m/z 95, 67 (86), 41 (68), 82 (64), 123 (62)...]	6.40	1135	0.05	7.73	1481	0.04
Unknown [m/z 41, 69 (87), 82 (66), 67 (55), 109 (46)... 142 (18)]	6.52	1143	0.03	9.54	1621	0.04
neo-Isopulegol	6.58	1146	0.07	8.33*	1527	0.07
Menthone	6.64	1150	0.17	6.75*	1409	[0.17]
Citronellal	6.72	1155	0.15	7.15*	1438	6.85
Isomenthone	6.83	1163	6.70	7.15*	1438	[6.85]
neo-Menthol	6.88	1166	0.05	8.79*	1562	6.89
Terpinen-4-ol	7.00	1173	0.04	8.79*	1562	[6.89]
Menthol	7.03	1175	0.02	9.33	1604	0.03
Isomenthol	7.13	1182	0.17	9.11	1586	0.17
para-Cymen-8-ol	7.16	1184	0.06	11.64	1795	0.08
α -Terpineol	7.25	1190	0.24	9.92*	1652	1.97

β -Cyclocitral?	7.66	1217	0.03	8.82	1564	0.02
Nerol	7.89†	1233	23.19	11.22	1759	0.80
Citronellol	8.03†	1242	[23.19]	10.94*	1736	22.25
Neral	8.04*	1243	0.34	9.58*	1624	0.50
(Z)-Isogeraniol	8.04*	1243	[0.34]	11.32	1768	0.03
Piperitone	8.10	1247	0.02	10.06*	1663	7.04
(E)-Isogeraniol?	8.18	1252	0.07	11.39*	1774	0.50
Geraniol	8.42	1268	13.47	11.82	1811	13.33
Geranial	8.52	1275	0.82	10.25	1678	0.80
Citronellyl formate	8.65	1284	11.48	9.06	1583	11.55
Neryl formate	8.69	1287	0.22	9.62	1627	0.75
Geranyl formate	9.02	1305	6.94	10.06*	1663	[7.04]
(3Z)-Hexenyl tiglate	9.14	1314	0.05	9.50	1618	0.07
Methyl geranate	9.29	1324	0.02	9.92*	1652	[1.97]
α -Cubebene	9.62	1347	0.11	6.91	1420	0.10
Phenylethyl propionate	9.63	1348	0.06	12.10	1836	0.03
Citronellyl acetate	9.72	1354	0.27	9.58*	1624	[0.50]
Neryl acetate	9.87	1365	0.12	10.31	1683	0.16
α -Ylangene	9.90	1368	0.13	7.15*	1438	[6.85]
α -Copaene	9.97	1372	0.32	7.26	1446	0.33
β -Bourbonene	10.08*	1380	1.03	7.60	1471	0.94
1,5-diepi- β -Bourbonene	10.08*	1380	[1.03]	7.49	1463	0.07
Geranyl acetate	10.14	1384	0.40	10.69	1715	0.42
β -Cubebene	10.17	1386	0.04	7.89	1493	0.06
β -Elemene	10.21†	1389	0.27	8.55*	1544	1.89
Phenylethyl isobutyrate	10.25†	1392	[0.27]	12.16	1841	0.01
Isocaryophyllene	10.38	1401	0.02	8.33*	1527	[0.07]
β -Caryophyllene	10.55	1414	1.17	8.55*	1544	[1.89]
β -Copaene	10.68	1424	0.11	8.49	1539	0.15
Heptyl tiglate	10.78	1431	0.02			
trans- α -Bergamotene	10.84*	1435	0.70	8.55*	1544	[1.89]
α -Guaiene	10.84*	1435	[0.70]	8.65	1551	0.01
6,9-Guaiadiene	10.93	1442	6.96	8.79*	1562	[6.89]
Citronellyl propionate	10.97*	1445	0.84	10.37	1688	0.39
Unknown [m/z 91, 161 (92), 105 (85), 119 (63), 133 (53), 79 (49), 204 (46)]	10.97*	1445	[0.84]	8.92*	1572	[0.38]
α -Humulene	11.02	1448	0.29	9.43	1612	0.26
allo-Aromadendrene	11.10	1455	0.17	9.14	1589	0.20
trans-Cadina-1(6)-4-diene	11.30*	1470	0.28	9.38	1608	0.16
γ -Muurolene	11.30*	1470	[0.28]	9.72	1635	0.10
Geranyl propionate	11.38*	1476	2.72	11.45	1779	1.07
Germacrene D	11.38*	1476	[2.72]	9.92*	1652	[1.97]
β -Selinene	11.44	1480	0.17	10.06*	1663	[7.04]
Phenylethyl isovalerate	11.51*	1485	0.44	13.24	1938	0.05
γ -Amorphene	11.51*	1485	[0.44]	10.00	1658	0.16

Viridiflorene	11.51*	1485	[0.44]	9.84	1646	0.21
Bicyclogermacrene	11.58	1490	0.10	10.28	1681	0.07
α -Murolene	11.69	1499	0.17	10.18	1673	0.15
δ -Guaiene	11.75	1503	0.13	10.06*	1663	[7.04]
β -Dihydroagarofuran	11.80	1507	0.06	10.52*	1700	0.45
γ -Cadinene	11.83	1509	0.22	10.52*	1700	[0.45]
7-epi- α -Selinene	11.89	1514	0.34	10.63	1710	0.11
Geranyl isobutyrate	11.95	1519	0.15	11.39*	1774	[0.50]
<i>trans</i> -Calamenene	11.97*	1521	0.61	11.39*	1774	[0.50]
δ -Cadinene	11.97*	1521	[0.61]	10.55	1703	0.50
<i>trans</i> -Cadina-1,4-diene	12.04	1526	0.04	10.79	1723	0.08
Citronellyl butyrate	12.08	1529	0.52	11.26	1763	0.49
Phenylethyl angelate?	12.13*	1533	0.05	14.44	2051	0.03
α -Cadinene	12.13*	1533	[0.05]	10.94*	1736	[22.25]
α -Agarofuran	12.15	1535	0.05	11.92	1820	0.10
Europelargone isomer	12.38	1553	0.12	12.95	1912	0.09
1-nor-Bourbonanone	12.44	1558	0.02	13.62	1973	0.01
Geranyl butyrate	12.49	1562	1.05	12.30	1853	1.03
Spathulenol	12.64	1573	0.06	14.59	2066	0.09
Caryophyllene oxide	12.66	1575	0.28	12.91	1908	0.34
Phenylethyl tiglate	12.75*	1582	1.39	15.17	2122	0.65
Europelargone A	12.75*	1582	[1.39]	14.15	2024	0.71
Geranyl 2-methylbutyrate?	12.97	1599	0.02	12.36*	1858	0.40
Geranyl isovalerate	13.02	1603	0.42	12.36*	1858	[0.40]
10-epi- γ -Eudesmol	13.09*	1610	0.28	14.28	2036	0.06
10-epi-Cubenol	13.09*	1610	[0.28]	13.90*	1999	0.34
Neryl angelate?	13.26*	1623	0.11			
1-epi-Cubenol	13.26*	1623	[0.11]	13.90*	1999	[0.34]
γ -Eudesmol	13.28	1625	0.05	15.08	2113	0.03
Citronellyl valerate?	13.34	1630	0.02	12.43	1865	0.01
τ -Murolol	13.43*	1638	0.15	15.24	2129	0.04
τ -Cadinol	13.43*	1638	[0.15]	15.02	2108	0.05
Unknown [m/z 147, 162 (79), 43 (64), 59 (64), 95 (47), 91 (44), 105 (43)... 238 (13)]	13.43*	1638	[0.15]	15.67	2172	0.01
β -Eudesmol	13.49*	1642	0.08	15.54	2159	0.02
α -Murolol	13.49*	1642	[0.08]	15.38	2143	0.06
α -Cadinol	13.56	1648	0.09	15.62	2167	0.08
Geranyl valerate	13.68*	1658	0.14	13.35	1948	0.07
<i>cis</i> -Calamenen-10-ol	13.68*	1658	[0.14]	16.59	2267	0.04
Citronellyl tiglate	13.78	1666	0.41	13.50	1962	0.46
Citronellyl 4-methylvalerate	14.01	1686	0.11			
3 β ,4 β -Oxidoagarofuran?	14.13	1695	0.08	16.19	2226	0.04
Geranyl tiglate	14.21	1702	1.79	14.55	2062	1.80
Geranyl 4-methylvalerate?	14.36	1715	0.04	14.01	2010	0.01

Citronellyl caproate	14.40	1718	0.21			
Geranyl caproate	14.82	1755	0.08	14.38	2045	0.12
Citronellyl heptanoate	15.54	1818	0.04			
Phytone	15.85	1846	0.02	14.82	2087	0.02
Geranyl heptanoate	15.92	1852	0.06	15.44*	2149	0.05
Citronellyl caprylate	16.58	1912	0.05			
Geranyl caprylate	16.97	1950	0.06	15.44*	2149	[0.05]
Total identified	97.02%			95.93%		
Total reported	97.17%			96.11%		

*: Two or more compounds are coeluting on this column

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