

Date : August 03, 2021

CERTIFICATE OF ANALYSIS – GC PROFILING

SAMPLE IDENTIFICATION

**Internal code :** 21G27-PTH02

**Customer identification :** Priprioca - Brazil - PA6100217R

**Type :** Essential oil

**Source :** Cyperus articulatus

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

**Analysis date :** July 28, 2021

Checked and approved by :

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

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#### *PHYSICOCHEMICAL DATA*

**Physical aspect:** Yellow brownish liquid

**Refractive index:**  $1.5041 \pm 0.0003$  ( $20^\circ\text{C}$ ; 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
Toluene	0.04	Simple phenolic
Furfural	tr	Furan
Unknown	0.10	Unknown
Styrene	0.01	Simple phenolic
Tricyclene	0.01	Monoterpene
α-Thujene	0.02	Monoterpene
α-Pinene	6.37	Monoterpene
Unknown	0.01	Simple phenolic
Unknown	0.01	Normonoterpene
α-Fenchene	0.02	Monoterpene
Camphene	0.07	Monoterpene
Unknown	tr	Monoterpene
Thuja-2,4(10)-diene	0.69	Monoterpene
Benzaldehyde	0.01	Simple phenolic
Unknown	0.01	Unknown
β-Pinene	3.24	Monoterpene
Sabinene	0.03	Monoterpene
3-para-Menthene	0.03	Monoterpene
6-Methyl-5-hepten-2-one	0.01	Aliphatic ketone
Menthatriene isomer 0	0.03	Monoterpene
Dehydro-1,8-cineole	0.11	Monoterpenic ether
Myrcene	0.02	Monoterpene
α-Phellandrene	0.01	Monoterpene
Pseudolimonene	0.03	Monoterpene
3,4-Dimethylstyrene	0.03	Simple phenolic
α-Terpinene	0.02	Monoterpene
para-Cymene	0.39	Monoterpene
Limonene	0.47	Monoterpene
1,8-Cineole	0.15	Monoterpenic ether
Cymene analog	0.01	Monoterpene
(Z)-β-Ocimene	0.01	Monoterpene
γ-Terpinene	0.04	Monoterpene
Unknown	0.16	Oxygenated monoterpene
cis-Linalool oxide (fur.)	0.02	Monoterpenic alcohol
Unknwon MISC CXII [m/z 91, 92 (99), 43 (23), 59 (13), 93 (11), 41 (9), 55 (9), 65 (8), 77 (7)...150 (2), 107 (1)]	0.02	Unknown
Unknown	0.05	Oxygenated monoterpene
Terpinolene	0.04	Monoterpene
para-Cymenene	0.14	Monoterpene
Perillene	0.01	Monoterpenic ether
Linalool	0.02	Monoterpenic alcohol
Verbenol analog?	0.07	Monoterpenic alcohol
endo-Fenchol	0.02	Monoterpenic alcohol
Unknown	0.05	Unknown

$\alpha$ -Campholenal	0.18	Monoterpenic aldehyde
Unknown	0.03	Unknown
Nopinone	0.21	Normonoterpenic ketone
<i>trans</i> -Pinocarveol	2.14	Monoterpenic alcohol
<i>cis</i> -Verbenol	0.22	Monoterpenic alcohol
<i>cis</i> - $\beta$ -Terpineol	0.03	Monoterpenic alcohol
<i>trans</i> -Verbenol	0.65	Monoterpenic alcohol
meta-Mentha-4,6-dien-8-ol	0.24	Monoterpenic alcohol
Sabinaketone	0.05	Normonoterpenic ketone
Unknown	0.06	Oxygenated monoterpane
Pinocarvone	0.21	Monoterpenic ketone
Borneol	0.02	Monoterpenic alcohol
$\alpha$ -Phellandren-8-ol	0.63	Monoterpenic alcohol
Isopinocamphone	0.32	Monoterpenic ketone
Unknown	0.02	Oxygenated monoterpane
Terpinen-4-ol	0.28	Monoterpenic alcohol
4-Methylacetophenone	0.03	Simple phenolic
Cryptone	0.03	Normonoterpenic ketone
para-Cymen-8-ol	0.25	Monoterpenic alcohol
Myrtenal	1.27	Monoterpenic aldehyde
$\alpha$ -Terpineol	0.14	Monoterpenic alcohol
Myrtenol	1.37	Monoterpenic alcohol
Unknown	0.11	Unknown
Verbenone	1.01	Monoterpenic ketone
Unknown	0.20	Unknown
Unknown	0.03	Unknown
<i>trans</i> -Carveol	0.26	Monoterpenic alcohol
Unknown	0.02	Unknown
Coumaran	0.02	Simple phenolic
<i>cis</i> -Carveol	0.04	Monoterpenic alcohol
Cuminal	0.08	Monoterpenic aldehyde
Carvone	0.14	Monoterpenic ketone
Carvotanacetone	0.01	Monoterpenic ketone
Unknown	0.04	Oxygenated monoterpane
Phellandral	0.06	Monoterpenic aldehyde
Unknown	0.01	Unknown
4-Ethylguaiacol	0.03	Norphenylpropanoid
Cuminol	0.10	Monoterpenic alcohol
Thymol	0.07	Monoterpenic alcohol
Carvacrol	0.07	Monoterpenic alcohol
Unknown	0.10	Norsesquiterpene
Unknown	0.03	Unknown
para-Mentha-1,4-dien-7-ol	0.06	Monoterpenic alcohol
$\alpha$ -Cubebene	0.02	Sesquiterpene
Cyprotene	0.06	Norsesquiterpene
Eugenol	0.07	Phenylpropanoid
Cypora-2,4-diene	0.06	Sesquiterpene
Cyclosativene I	0.15	Sesquiterpene
Cyclosativene II	0.43	Sesquiterpene
$\alpha$ -Copaene	3.55	Sesquiterpene
Methyl ( <i>E</i> )-cinnamate	0.02	Phenylpropanoid ester
Sativene	0.10	Sesquiterpene

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β-Elemene	0.20	Sesquiterpene
Cyperene	2.12	Sesquiterpene
Ylanga-2,4(15)-diene?	1.76	Sesquiterpene
β-Caryophyllene	0.04	Sesquiterpene
Unknown	0.16	Sesquiterpene
β-Copaene	0.03	Sesquiterpene
Patchoula-2,4(15)-diene	0.02	Sesquiterpene
α-Guaiene	0.20	Sesquiterpene
Rotundene	0.86	Sesquiterpene
allo-Aromadendrene	0.02	Sesquiterpene
Unknown	0.36	Sesquiterpene
4,5-diepi-Aristolochene	0.10	Sesquiterpene
γ-Murolene	0.60	Sesquiterpene
Eudesma-3,5,11-triene	0.29	Sesquiterpene
β-Selinene	2.06	Sesquiterpene
α-Selinene	0.47	Sesquiterpene
Isorotundene	0.62	Sesquiterpene
α-Murolene	0.04	Sesquiterpene
Unknown	0.74	Oxygenated sesquiterpene
δ-Guaiene	0.64	Sesquiterpene
γ-Cadinene	0.40	Sesquiterpene
trans-Calamenene	0.34	Sesquiterpene
δ-Cadinene	0.14	Sesquiterpene
Unknown	0.70	Sesquiterpene
Unknown	0.53	Sesquiterpene
α-Calacorene	0.83	Sesquiterpene
Isocaryophyllene epoxide B	0.33	Sesquiterpenic ether
Unknown	0.29	Oxygenated sesquiterpene
Unknown	1.16	Oxygenated sesquiterpene
Unknown	1.41	Oxygenated sesquiterpene
Unknown	0.55	Oxygenated sesquiterpene
Caryophyllene oxide	2.69	Sesquiterpenic ether
Caryophyllene oxide isomer	0.05	Sesquiterpenic ether
Unknown	0.15	Oxygenated sesquiterpene
Unknown	0.15	Oxygenated sesquiterpene
Unknown	1.51	Oxygenated sesquiterpene
Unknown	0.82	Oxygenated sesquiterpene
Unknown	0.59	Oxygenated sesquiterpene
Unknown	0.31	Oxygenated sesquiterpene
Unknown	0.21	Oxygenated sesquiterpene
Unknown	0.51	Oxygenated sesquiterpene
Unknown	0.20	Oxygenated sesquiterpene
Pogostol	1.88	Sesquiterpenic alcohol
Unknown	1.06	Oxygenated sesquiterpene
Unknown	0.48	Unknown
Mustakone	7.09	Sesquiterpenic ketone
Cyperol?	0.74	Sesquiterpenic alcohol
Cyperotundone	1.73	Sesquiterpenic ketone
Unknown	0.29	Oxygenated sesquiterpene
Unknown	0.12	Lignan
Rotundone	2.43	Sesquiterpenic ketone
Unknown	0.63	Oxygenated sesquiterpene

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Unknown	0.76	Oxygenated sesquiterpene
Patchoulenone	4.90	Sesquiterpenic ketone
Unknown	0.73	Unknown
Unknown	0.22	Oxygenated sesquiterpene
Unknown	0.11	Oxygenated sesquiterpene
Unknown	0.20	Oxygenated sesquiterpene
Unknown	0.13	Oxygenated sesquiterpene
Corymbolone	0.30	Sesquiterpenic alcohol
Unknown	0.11	Unknown
Unknown	0.45	Sesquiterpene
Unknown	0.62	Sesquiterpene
Unknown	0.37	Oxygenated sesquiterpene
<b>Consolidated total</b>	<b>78.47%</b>	

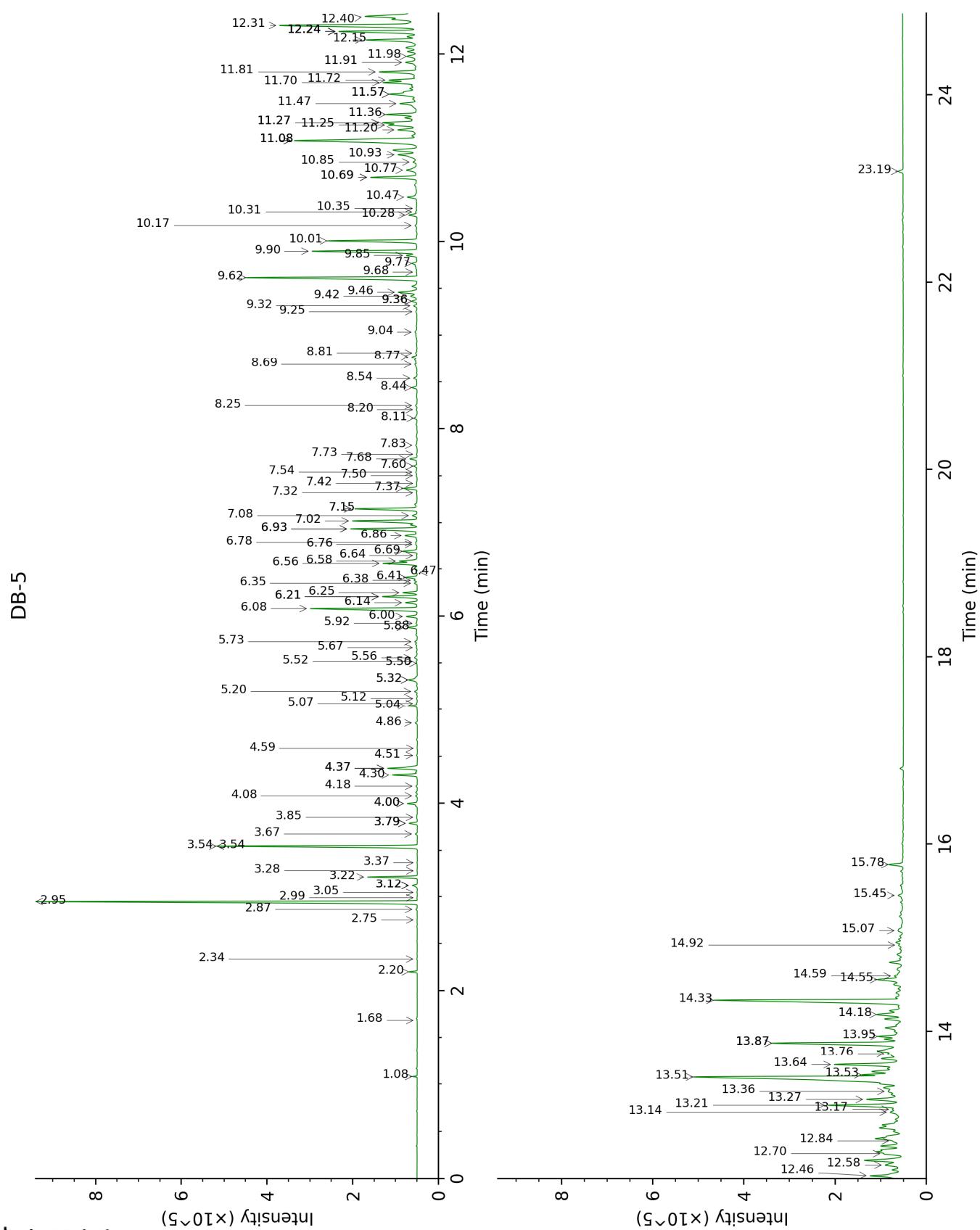
tr: The compound has been detected below 0.005% of total signal.

Note: no correction factor was applied

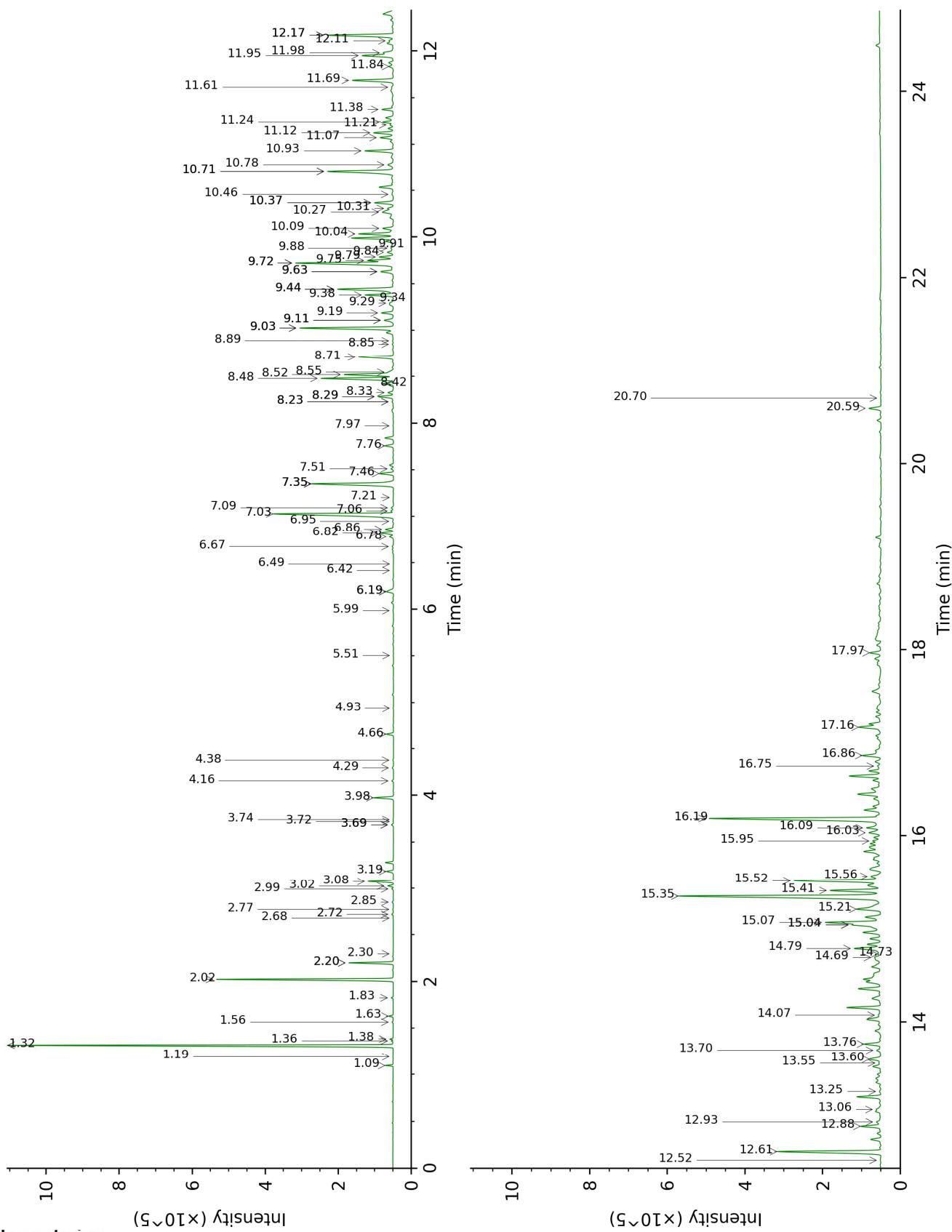
**About "consolidated" data:** The table above presents the breakdown of the sample volatile constituents after applying an algorithm to collapse data acquired from the multi-columns system of PhytoChemia into a single set of consolidated contents. In case of discrepancies between columns, the algorithm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



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FULL ANALYSIS DATA

Identification	Column DB-5			Column DB-WAX		
	R.T	R.I	%	R.T	R.I	%
Toluene	1.08	758	0.04	1.38	1000	0.05
Furfural	1.68	830	tr	6.49	1408	tr
Unknown [m/z 79, 78 (45), 91 (28), 77 (28), 41 (13), 80 (12), 107 (11)... 122 (1)]	2.20	875	0.10	1.10	954	0.10
Styrene	2.34	886	0.01	3.72	1209	0.01
Tricyclene	2.75	918	0.01	1.19	971	tr
α-Thujene	2.87	926	0.02	1.36	998	0.02
α-Pinene	2.95	932	6.37	1.32	993	6.48
Unknown [m/z 122, 121 (36), 107 (33), 79 (27), 93 (25), 77 (25), 43 (20)]	2.99	934	0.01	3.74	1210	0.01
Unknown [m/z 79, 68 (75), 67 (68), 93 (63), 78 (39)... 122 (11)]	3.05	938	0.01			
α-Fenchene	3.12*	943	0.10	1.56	1019	0.02
Camphene	3.12*	943	[0.10]	1.63	1026	0.07
Unknown [m/z 91, 92 (47), 65 (11)... 134 (1)]	3.12*	943	[0.10]	2.30	1094	tr
Thuja-2,4(10)-diene	3.22	950	0.69	2.20*	1084	0.80
Benzaldehyde	3.28	954	0.01	7.20	1461	0.01
Unknown [m/z 55, 43 (89), 111 (78), 93 (75), 41 (56), 83 (53), 91 (42), 108 (38), 67 (36), 126 (35)....]	3.37	960	0.01			
β-Pinene	3.54*	972	3.27	2.02	1066	3.24
Sabinene	3.54*	972	[3.27]	2.20*	1084	[0.80]
3-para-Menthene	3.68	981	0.03	1.83	1046	0.03
6-Methyl-5-hepten-2-one	3.79*	989	0.14	4.93	1300	0.01
Menthatriene isomer 0	3.79*	989	[0.14]	2.99	1151	0.03
Dehydro-1,8-cineole	3.79*	989	[0.14]	3.02	1153	0.11
Myrcene	3.85	993	0.02	2.77	1133	0.02
α-Phellandrene	4.00*	1003	0.17	2.68	1125	0.01
Pseudolimonene	4.00*	1003	[0.17]	2.72	1128	0.03
3,4-Dimethylstyrene	4.08	1008	0.03	4.30	1252	0.04
α-Terpinene	4.18	1015	0.02	2.85	1139	0.03
para-Cymene	4.30	1022	0.39	3.98	1228	0.40
Limonene	4.37*†	1027	0.59	3.08	1157	0.47
1,8-Cineole	4.37*†	1027	[0.59]	3.18	1166	0.15
Cymene analog	4.51	1036	0.01	4.38	1258	0.02
(Z)-β-Ocimene	4.59	1040	0.01	3.68*	1206	0.05
γ-Terpinene	4.86	1058	0.04	3.68*	1206	[0.05]

Unknown [m/z 79, 93 (60), 43 (40), 94 (35), 137 (33), 77 (26), 91 (20), 152 (18)]	5.04	1069	0.16	4.66	1279	0.16
cis-Linalool oxide (fur.)	5.07	1071	0.02	6.42	1403	0.01
Unkown MISC CXII [m/z 91, 92 (99), 43 (23), 59 (13), 93 (11), 41 (9), 55 (9), 65 (8), 77 (7)...150 (2), 107 (1)]	5.12	1074	0.02	5.51	1337	0.01
Unknown [m/z 43, 94 (63), 109 (61), 59 (55), 79 (51)...152 (2)]	5.20	1079	0.05	7.10	1453	0.06
Terpinolene	5.32*	1087	0.21	4.16	1241	0.04
para-Cymenene	5.32*	1087	[0.21]	6.19*	1386	0.24
Perillene	5.50	1098	0.01	5.99	1371	0.01
Linalool	5.52	1100	0.02	7.97	1519	0.01
Verbenol analog?	5.56	1102	0.07			
endo-Fenchol	5.66	1109	0.02	8.23*	1539	0.03
Unknown [m/z 93, 121 (64), 91 (58), 77 (58), 94 (53), 79 (47)...]	5.73	1113	0.05			
α-Campholenal	5.88	1123	0.18	6.86	1436	0.19
Unknown [m/z 91, 92 (95), 43 (25), 59 (14), 79 (12), 93 (10), 77 (8), 65 (7)...150 (4), 107 (3)]	5.92	1126	0.03			
Nopinone	6.00	1131	0.21			
trans-Pinocarveol	6.08	1136	2.14	9.03*	1601	2.21
cis-Verbenol	6.14	1140	0.22	9.11*	1608	0.28
cis-β-Terpineol	6.21*	1144	0.65	8.85	1588	0.03
trans-Verbenol	6.21*	1144	[0.65]	9.38	1630	0.65
meta-Mentha-4,6-dien-8-ol	6.25	1147	0.24	9.19	1614	0.30
Sabinaketone	6.35	1154	0.05	8.55	1564	0.09
Unknown [m/z 97, 81 (96), 109 (80), 43 (53), 53 (40), 41 (36), 56 (29), 95 (25)... 152 (1)]	6.38	1156	0.06	7.35*	1472	2.35
Pinocarvone	6.41	1158	0.21	7.76	1503	0.20
Borneol	6.47	1161	0.02	9.63*	1650	0.36
α-Phellandren-8-ol	6.56	1168	0.63	10.04	1683	0.89
Isopinocamphone	6.58	1169	0.32	7.46	1480	0.33
Unknown [m/z 81, 108 (98), 95 (78), 67 (56), 109 (50), 79 (49), 93 (44)... 152 (2)]	6.64	1173	0.02			
Terpinen-4-ol	6.69	1176	0.28	8.42	1554	0.25

4-Methylacetophenone	6.76	1181	0.03	10.37*	1711	0.49
Cryptone	6.78	1182	0.03	9.03*	1601	[2.21]
para-Cymen-8-ol	6.86	1187	0.25	11.38	1796	0.25
Myrtenal	6.94*	1192	1.41	8.52	1562	1.27
α-Terpineol	6.94*	1192	[1.41]	9.63*	1650	[0.36]
Myrtenol	7.02	1197	1.37	10.71*	1740	1.99
Unknown [m/z 95, 83 (81), 55 (47), 41 (30), 109 (27)... 152 (7)]	7.08	1201	0.11			
Verbenone	7.15*†	1206	1.26	9.44*	1635	1.61
Unknown [m/z 95, 93 (32), 121 (24), 79 (22), 91 (21), 105 (16)... 154 (2)]	7.15*†	1206	[1.26]	10.78	1746	0.20
Unknown [m/z 84, 107 (86), 79 (76), 91 (59), 83 (51), 41 (41), 135 (40)...]	7.32	1217	0.03			
trans-Carveol	7.37	1221	0.26	11.24	1784	0.25
Unknown [m/z 43, 58 (35), 71 (31), 112 (28), 83 (26), 59 (23), 119 (22)... 170 (6)]	7.42	1224	0.02	11.84	1837	0.12
Coumaran	7.50	1230	0.02	16.86	2324	0.63
cis-Carveol	7.54	1232	0.04	11.61	1817	0.05
Cuminal	7.60	1237	0.08	10.46	1718	0.06
Carvone	7.68	1242	0.14	9.84	1667	0.18
Carvotanacetone	7.73	1245	0.01	9.34	1627	0.01
Unknown [m/z 109, 119 (84), 91 (81), 134 (55)... 137 (27)...]	7.82	1252	0.04	11.21	1782	0.08
Phellandral	8.11	1272	0.06	9.88	1671	0.07
Unknown [m/z 79, 107 (68), 121 (56), 150 (55), 91 (48), 77 (45)...]	8.20	1278	0.01			
4-Ethylguaiacol	8.25	1281	0.03	13.25	1964	0.06
Cuminol	8.44	1294	0.10	14.07	2042	0.09
Thymol	8.54	1301	0.07	15.04*†	2136	2.38
Carvacrol	8.69	1307	0.07	15.21	2153	1.07
Unknown [m/z 135, 121 (81), 177 (78), 107 (60), 192 (42), 149 (35)]	8.77	1313	0.10	6.19*	1386	[0.24]
Unknown [m/z 159, 117 (68), 132 (55), 200 (35)]	8.81	1316	0.03	6.95	1442	0.02
para-Mentha-1,4-dien-7-ol	9.04	1332	0.06	13.56	1992	0.06
α-Cubebene	9.25	1348	0.02	6.67	1422	0.04
Cyprotene	9.32	1352	0.06	7.06	1450	0.06

Eugenol	9.36*	1355	0.10	14.73	2105	0.07
Cypera-2,4-diene	9.36*	1355	[0.10]	7.51	1484	0.06
Cyclosativene I	9.42	1359	0.15	6.78	1430	0.10
Cyclosativene II	9.46	1362	0.43	6.82	1433	0.30
$\alpha$ -Copaene	9.62	1373	3.55	7.03	1448	3.65
Methyl ( <i>E</i> )-cinnamate	9.68	1378	0.02	13.70	2006	0.18
Sativene	9.77	1384	0.10	7.35*	1472	[2.35]
$\beta$ -Elemene	9.85	1390	0.20	8.28*	1544	0.39
Cyperene	9.90	1393	2.12	7.35*	1472	[2.35]
Ylanga-2,4(15)-diene?	10.01	1401	1.76	8.48	1559	1.77
$\beta$ -Caryophyllene	10.17	1413	0.04	8.28*	1544	[0.39]
Unknown [m/z 159, 132 (85), 91 (54), 131 (52), 105 (51), 202 (50)...]	10.28	1421	0.16			
$\beta$ -Copaene	10.31	1424	0.03	8.23*	1539	[0.03]
Patchoula-2,4(15)-diene	10.35	1427	0.02	9.11*	1608	[0.28]
$\alpha$ -Guaiene	10.47	1436	0.20	8.33	1547	0.15
Rotundene	10.69*	1452	0.93	8.71	1577	0.86
allo-Aromadendrene	10.69*	1452	[0.93]	8.89	1590	0.02
Unknown [m/z 132, 91 (63), 117 (55), 105 (52), 131 (41)... 202 (21)]	10.77	1458	0.36			
4,5-diepi-Aristolochene	10.85	1464	0.10	9.29	1623	0.09
$\gamma$ -Muurolene	10.93	1470	0.60	9.44*	1635	[1.61]
Eudesma-3,5,11-triene	11.08*	1481	3.85	10.09	1688	0.29
$\beta$ -Selinene	11.08*	1481	[3.85]	9.72*†	1658	3.32
$\alpha$ -Selinene	11.20	1490	0.47	9.79	1663	0.34
Isorotundene	11.25	1494	0.62	9.75†	1660	[3.32]
$\alpha$ -Muurolene	11.27*	1496	0.78	9.92	1673	0.04
Unknown [m/z 159, 131 (51), 105 (38), 91 (35), 106 (30), 145 (26)...220 (1)]	11.27*	1496	[0.78]			
$\delta$ -Guaiene	11.36	1502	0.64	9.72*†	1658	[3.32]
$\gamma$ -Cadinene	11.47	1511	0.40	10.27	1702	0.43
<i>trans</i> -Calamenene	11.58*	1519	0.79	11.07	1770	0.34
$\delta$ -Cadinene	11.58*	1519	[0.79]	10.31	1706	0.14
Unknown [m/z 161, 119 (63), 91 (34), 105 (32), 145 (29), 131 (25), 159 (20)... 202 (9)...]	11.70	1529	0.70	10.93	1758	0.69
Unknown [m/z 133, 105 (70), 146 (69), 145 (61), 91 (55), 131 (45), 187 (42), 159	11.72	1531	0.53	11.12	1775	0.49

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(39), 119 (33), 202 (30)...						
α-Calacorene	11.81	1538	0.83	11.95	1847	0.89
Isocaryophyllene epoxide B	11.91	1546	0.33	11.98	1849	0.29
Unknown [m/z 79, 96 (89), 109 (76), 107 (71), 41 (66), 95 (63)... 220 (6)]	11.98	1551	0.29	12.17*	1866	1.69
Unknown [m/z 43, 107 (66), 105 (58), 81 (58), 93 (57), 147 (55)... 220 (16)]	12.15	1565	1.16	11.69	1823	1.08
Unknown [m/z 43, 107 (94), 81 (71), 41 (63), 67 (58), 111 (58), 93 (55), 83 (54)... 205 (8), 220 (1)]	12.24*†	1572	5.26	12.17*	1866	[1.69]
Unknown [m/z 93, 79 (96), 41 (96), 107 (87), 81 (85), 121 (84), 95 (84)...	12.24*†	1572	[5.26]	12.88	1930	0.55
Caryophyllene oxide	12.24*†	1572	[5.26]	12.61	1906	2.69
Caryophyllene oxide isomer	12.24*†	1572	[5.26]	12.52	1897	0.05
Unknown [m/z 173, 216 (68), 159 (52), 43 (33)]	12.24*†	1572	[5.26]	12.93	1935	0.15
Unknown [m/z 173, 216 (66), 159 (39), 174 (22), 43 (20), 201 (19)... 236? (2)]	12.31†	1577	[5.26]	13.06	1947	0.15
Unknown [m/z 161, 159 (69), 91 (41), 187 (38), 105 (37), 146 (35), 131 (34)...	12.40	1585	1.51	14.79	2111	0.85
Unknown [m/z 159, 58 (91), 93 (66), 43 (60), 92 (51)... 220 (19)]	12.46	1590	0.82	15.04*†	2136	[2.38]
Unknown [m/z 177, 43 (97), 109 (65), 67 (57), 96 (51)... 220 (13)]	12.58	1598	0.59	13.60	1996	0.38
Unknown [m/z 218, 175 (99), 147 (56), 136 (40), 91 (39), 93 (37)]	12.70	1608	0.31	13.76	2012	0.48
Unknown [m/z 107, 93 (98), 81 (88), 95 (84), 121 (83), 41 (81)... 220 (17)]	12.84	1619	0.21	12.11	1861	0.11

Laboratoire  
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Plus que des analyses... des conseils

Unknown [m/z 43, 79 (84), 93 (81), 91 (76), 119 (71), 105 (69)...]	13.14	1644	0.51	16.03	2237	0.43
Unknown [m/z 43, 81 (79), 93 (77), 91 (70), 161 (68), 107 (67), 95 (65)...]	13.17	1647	0.20			
Pogostol	13.21	1651	1.88	15.07†	2139	[2.38]
Unknown [m/z 43, 93 (86), 79 (85), 107 (66), 91 (59), 105 (59), 119 (57)... 205 (23), 220 (3)]	13.27	1656	1.06			
Unknown [m/z 161, 43 (71), 105 (45), 95 (44), 204 (41), 119 (41)...]	13.36	1663	0.48			
Mustakone	13.51	1676	7.09	15.35	2167	6.42
Cyperol?	13.53	1677	0.74	16.09	2242	0.50
Cyperotundone	13.64	1686	1.73	15.41	2173	1.42
Unknown [m/z 175, 218 (84), 91 (63), 133 (58), 105 (57)]	13.76	1696	0.29	15.56	2188	0.36
Unknown [m/z 133, 93 (97), 131 (85), 145 (83), 107 (69)...220]	13.87*	1706	3.20	16.75	2312	0.12
Rotundone	13.87*	1706	[3.20]	15.52	2184	2.43
Unknown [m/z 159, 93 (87), 105 (84), 91 (81), 107 (71), 131 (69), 79 (65), 119 (63), 145 (62), 41 (61), 220 (61)]	13.95	1712	0.63	17.16	2356	0.74
Unknown [m/z 91, 108 (86), 107 (85), 93 (80), 120 (75), 105 (71), 95 (72)... 218 (37)]	14.18	1732	0.76	15.95	2228	0.22
Patchoulenone	14.33	1746	4.90	16.19	2253	5.10
Unknown [m/z 105, 91 (82), 173 (69), 145 (68), 43 (65)...]	14.55	1765	0.73			
Unknown [m/z 91, 147 (99), 132 (93), 161 (90), 93 (82), 133 (80), 105 (77)... 218 (48)]	14.59	1768	0.22			
Unknown [m/z 219, 43 (67), 91 (46), 79 (42), 41 (41), 55 (36)... 234 (6)]	14.92	1797	0.11	17.97	2444	0.30

Unknown [m/z 43, 91 (43), 41 (37), 79 (32), 219 (31)... 234 (14)]	15.07	1810	0.20	20.59	2752	0.33
Unknown [m/z 41, 110 (77), 55 (75), 69 (74), 43 (74), 95 (71), 97 (71), 123 (71), 67 (63), 136 (56)... 236? (7)]	15.45	1845	0.13	20.70	2765	0.01
Corymbolone	15.78	1875	0.30			
Unknown [m/z 145, 146 (97), 159 (96), 202 (90), 91 (78)...]	23.19	2675	0.11			
Unknown [m/z 202, 145 (95), 105 (90), 131 (74), 91 (67), 120 (61), 159 (54)]				10.37*	1711	[0.49]
Unknown [m/z 91, 105 (93), 202 (89), 145 (81), 131 (71), 119 (68), 93 (66), 79 (57)]				10.71*	1740	[1.99]
Unknown [m/z 159, 145 (79), 189 (77), 55 (72), 109 (61), 81 (61), 107 (59)... 220 (9)]				14.69	2102	0.37
<b>Total identified</b>	<b>67.06%</b>			<b>65.15%</b>		
<b>Total reported</b>	<b>79.93%</b>			<b>73.71%</b>		

\*: 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