

Date : 2024-06-03

CERTIFICATE OF ANALYSIS - GC PROFILING

SAMPLE IDENTIFICATION

**Internal code** : 24E17-PTH02

**Customer Identification** : Organic Turmeric CO2 - India - TK0113R

**Type** : CO2 Extract

**Source** : *Curcuma longa*

**Customer** : Plant Therapy

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*Notes: This report may not be published, including online, without the written consent from Laboratoire PhytoChemia.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

## *GAS CHROMATOGRAPHIC ANALYSIS*

**Method :** PC-MAT-004 - Terpenes and volatiles profiling by response factor

**Results :** See analysis summary (next page)

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

**Date :** 2024-05-28

## *CONCLUSION*

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

## ANALYSIS SUMMARY

Identification	mg/g	% m/m	Class
2,3-Butanediol isomer II	0.18	0.02	Aliphatic alcohol
$\alpha$ -Thujene	0.08	0.01	Monoterpene
$\alpha$ -Pinene	1.51	0.15	Monoterpene
Camphene	0.04	0.00	Monoterpene
Sabinene	0.06	0.01	Monoterpene
$\beta$ -Pinene	0.16	0.02	Monoterpene
3-Methyl-3-cyclohexenone	0.03	0.00	Aliphatic ketone
Myrcene	0.44	0.04	Monoterpene
2-Carene	0.02	0.00	Monoterpene
$\alpha$ -Phellandrene	6.67	0.67	Monoterpene
$\Delta^3$ -Carene	0.28	0.03	Monoterpene
$\alpha$ -Terpinene	0.13	0.01	Monoterpene
<i>para</i> -Cymene	5.78	0.58	Monoterpene
Limonene	0.86	0.09	Monoterpene
$\beta$ -Phellandrene	0.42	0.04	Monoterpene
1,8-Cineole	4.51	0.45	Monoterpenic ether
( <i>Z</i> )- $\beta$ -Ocimene	0.03	0.00	Monoterpene
( <i>E</i> )- $\beta$ -Ocimene	0.05	0.00	Monoterpene
$\gamma$ -Terpinene	0.22	0.02	Monoterpene
<i>para</i> -Cymenene	0.06	0.01	Monoterpene
Terpinolene	0.36	0.04	Monoterpene
Linalool	0.05	tr	Monoterpenic alcohol
<i>cis-para</i> -Menth-2-en-1-ol	0.11	0.01	Monoterpenic alcohol
Camphor	0.13	0.01	Monoterpenic ketone
Borneol	0.05	tr	Monoterpenic alcohol
$\delta$ -Terpineol	0.05	tr	Monoterpenic alcohol
Terpinen-4-ol	0.21	0.02	Monoterpenic alcohol
4-Methylacetophenone	0.52	0.05	Simple phenolic
<i>para</i> -Cymen-8-ol	0.22	0.02	Monoterpenic alcohol
$\alpha$ -Terpineol	0.34	0.03	Monoterpenic alcohol
<i>cis</i> - $\alpha$ -Phellandrene epoxide (iPr vs Me)	0.75	0.07	Monoterpenic ether
Unknown	0.09	0.01	Oxygenated monoterpene
<i>trans</i> -Piperitol	0.08	0.01	Monoterpenic alcohol
Unknown	0.09	0.01	Oxygenated monoterpene
Unknown	0.12	0.01	Oxygenated monoterpene
Carvotanacetone	0.03	tr	Monoterpenic ketone
Unknown	0.11	0.01	Monoterpenic ester
Thymol	0.23	0.02	Monoterpenic alcohol
Carvacrol	0.56	0.06	Monoterpenic alcohol
Unknown	0.08	0.01	Unknown
Unknown	0.19	0.02	Terpene derivative

Unknown	0.72	0.07	Terpene derivative
Unknown	0.60	0.06	Terpene derivative
Unknown	0.88	0.09	Sesquiterpene
(Z?)-Vestitenone, or analog	1.14	0.11	Terpenic ketone
Acora-3,7(14)-diene	0.25	0.02	Sesquiterpene
$\beta$ -Caryophyllene	4.82	0.48	Sesquiterpene
$\alpha$ -Santalene	1.56	0.16	Sesquiterpene
Caryophylla-4(12),8(13)-diene	0.11	0.01	Sesquiterpene
$\gamma$ -Elemene	1.01	0.10	Sesquiterpene
<i>trans</i> - $\alpha$ -Bergamotene	0.51	0.05	Sesquiterpene
Unknown	2.54	0.25	Unknown
( <i>E</i> )-Vestitenone	0.36	0.04	Terpenic ketone
Unknown	0.29	0.03	Sesquiterpene
$\alpha$ -Humulene	2.21	0.22	Sesquiterpene
Sesquisabinene B	0.97	0.10	Sesquiterpene
( <i>E</i> )- $\beta$ -Farnesene	2.73	0.27	Sesquiterpene
$\beta$ -Acoradiene	0.67	0.07	Sesquiterpene
<i>trans</i> - $\beta$ -Bergamotene	0.60	0.06	Sesquiterpene
$\gamma$ -Curcumene	1.11	0.11	Sesquiterpene
Unknown	1.23	0.12	Sesquiterpene
<i>ar</i> -Curcumene	31.46	3.15	Sesquiterpene
$\alpha$ -Zingiberene	29.49	2.95	Sesquiterpene
Unknown	0.55	0.05	Sesquiterpene
$\beta$ -Curcumene	0.23	0.02	Sesquiterpene
$\beta$ -Bisabolene	8.21	0.82	Sesquiterpene
Unknown	1.17	0.12	Oxygenated sesquiterpene
Unknown	2.24	0.22	Oxygenated sesquiterpene
$\beta$ -Sesquiphellandrene	50.82	5.08	Sesquiterpene
( <i>E</i> )- $\gamma$ -Bisabolene	1.43	0.14	Sesquiterpene
Selina-4(15),7(11)-diene	1.65	0.16	Sesquiterpene
Selina-3,7(11)-diene	0.86	0.09	Sesquiterpene
Unknown	0.22	0.02	Sesquiterpene
Germacrene B	2.06	0.21	Sesquiterpene
<i>cis</i> -Sesquisabinene hydrate	1.32	0.13	Sesquiterpenic alcohol
Unknown	0.39	0.04	Oxygenated sesquiterpene
Unknown	0.74	0.07	Oxygenated sesquiterpene
( <i>E</i> )-Nerolidol	0.91	0.09	Sesquiterpenic alcohol
Unknown	1.99	0.20	Unknown
Santalenone	1.85	0.19	Sesquiterpenic ketone
Caryophyllene oxide	1.31	0.13	Sesquiterpenic ether
Unknown	2.19	0.22	Oxygenated sesquiterpene
Caryophyllene oxide isomer	0.18	0.02	Sesquiterpenic ether
<i>ar</i> -Turmerol	5.81	0.58	Sesquiterpenic alcohol
<i>trans</i> -Sesquisabinene hydrate	0.17	0.02	Sesquiterpenic alcohol
<i>ar</i> -Dihydroturmerone	1.40	0.14	Sesquiterpenic ketone

Unknown	3.88	0.39	Oxygenated sesquiterpene
Unknown	1.54	0.15	Oxygenated sesquiterpene
Unknown	7.28	0.73	Oxygenated sesquiterpene
<i>cis</i> -Zingiberenol	5.97	0.60	Sesquiterpenic alcohol
Unknown	5.59	0.56	Oxygenated sesquiterpene
Eremoligenol?	10.43	1.04	Sesquiterpenic alcohol
Unknown	5.41	0.54	Oxygenated sesquiterpene
<i>trans</i> -Zingiberenol	8.50	0.85	Sesquiterpenic alcohol
Unknown	4.36	0.44	Oxygenated sesquiterpene
$\alpha$ -Turmerone	276.34	27.63	Sesquiterpenic ketone
$\alpha$ -Turmerone	155.56	15.56	Sesquiterpenic ketone
( <i>E</i> )- $\alpha$ -Santalal	1.32	0.13	Sesquiterpenic aldehyde
Unknown	2.86	0.29	Oxygenated sesquiterpene
Unknown	1.85	0.19	Oxygenated sesquiterpene
Unknown	1.00	0.10	Oxygenated sesquiterpene
Unknown	6.03	0.60	Oxygenated sesquiterpene
Unknown	3.33	0.33	Oxygenated sesquiterpene
$\beta$ -Turmerone	139.73	13.97	Sesquiterpenic ketone
( <i>E</i> )- $\gamma$ -Atlantone	5.14	0.51	Sesquiterpenic ketone
Curcuphenol	0.75	0.07	Sesquiterpenic alcohol
( <i>Z</i> )- $\alpha$ -Atlantone	0.69	0.07	Sesquiterpenic ketone
(6 <i>S</i> ,7 <i>R</i> )-Bisabolone	11.38	1.14	Sesquiterpenic ketone
Unknown	0.78	0.08	Oxygenated sesquiterpene
Xanthorizzhol?	0.81	0.08	Sesquiterpenic alcohol
Unknown	3.61	0.36	Unknown
Unknown	5.56	0.56	Oxygenated sesquiterpene
Unknown	6.60	0.66	Oxygenated sesquiterpene
( <i>E</i> )- $\alpha$ -Atlantone	23.76	2.38	Sesquiterpenic ketone
Unknown	1.95	0.20	Oxygenated sesquiterpene
Unknown	3.96	0.40	Oxygenated sesquiterpene
Unknown	0.99	0.10	Oxygenated sesquiterpene
Unknown	4.78	0.48	Oxygenated sesquiterpene
Unknown	4.62	0.46	Unknown
Unknown	0.92	0.09	Oxygenated sesquiterpene
Unknown	0.93	0.09	Oxygenated sesquiterpene
Unknown	1.27	0.13	Oxygenated sesquiterpene
Unknown	0.50	0.05	Oxygenated sesquiterpene
Unknown	1.22	0.12	Oxygenated sesquiterpene
Unknown	0.94	0.09	Oxygenated sesquiterpene
Unknown	7.16	0.72	Oxygenated sesquiterpene
Unknown	0.56	0.06	Unknown
Unknown	2.78	0.28	Unknown
Unknown	0.40	0.04	Oxygenated sesquiterpene
Unknown	0.63	0.06	Oxygenated sesquiterpene
Tumeronol B?	1.98	0.20	Sesquiterpenic alcohol

Unknown	0.44	0.04	Oxygenated sesquiterpene
Palmitic acid	11.92	1.19	Aliphatic acid
Unknown	3.15	0.31	Oxygenated sesquiterpene
Unknown	0.72	0.07	Oxygenated sesquiterpene
Unknown	0.13	0.01	Oxygenated sesquiterpene
Unknown	0.51	0.05	Oxygenated sesquiterpene
Stearic acid	11.77	1.18	Aliphatic acid
<b>Consolidated total</b>	<b>963.08</b>	<b>96.31</b>	

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

Note: Individual compounds contents were corrected following the method of Cachet et al., 2016 (Flavour and Fragrance Journal guidelines).

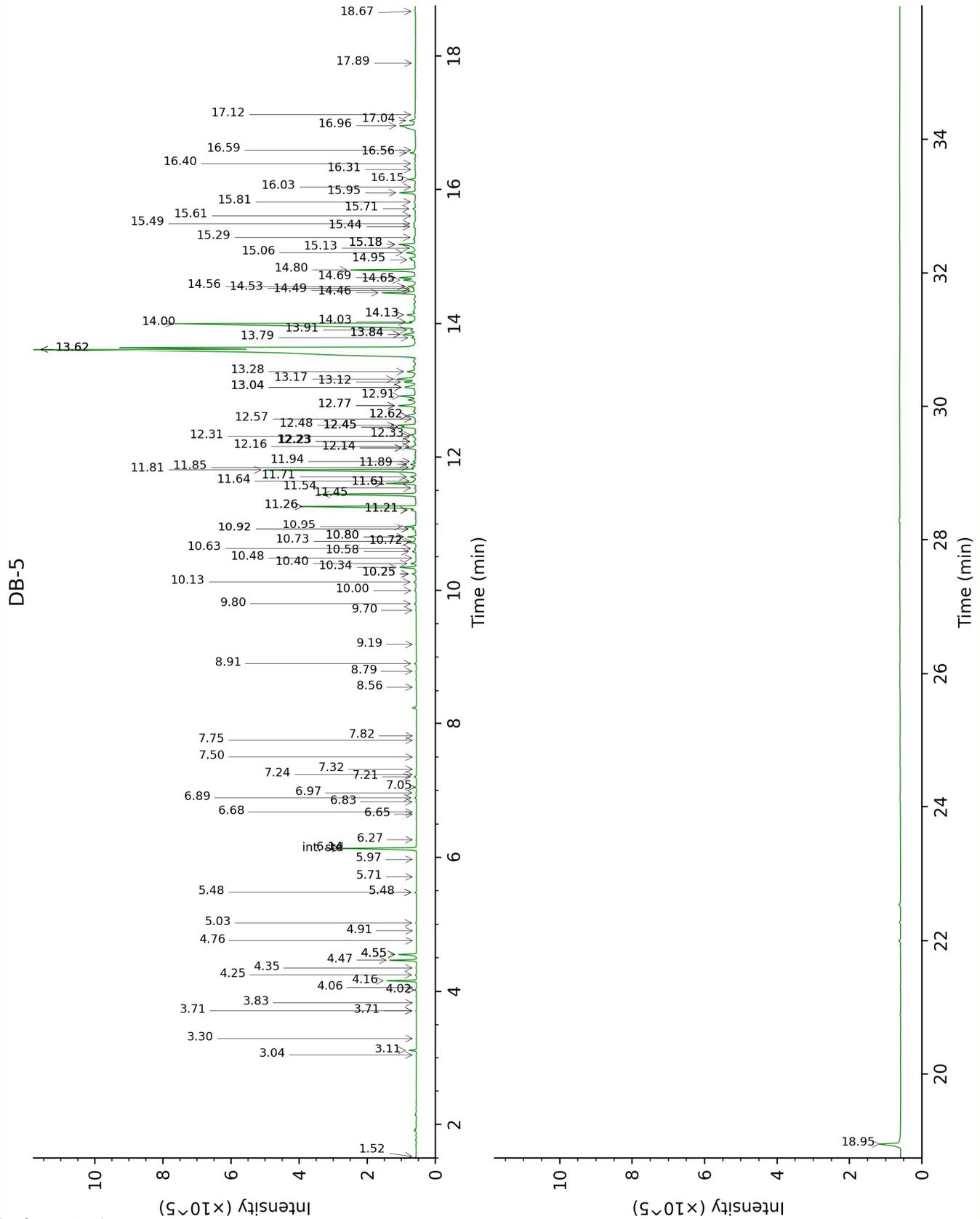
Unknown compounds are expressed in equivalents of internal standard without correction.

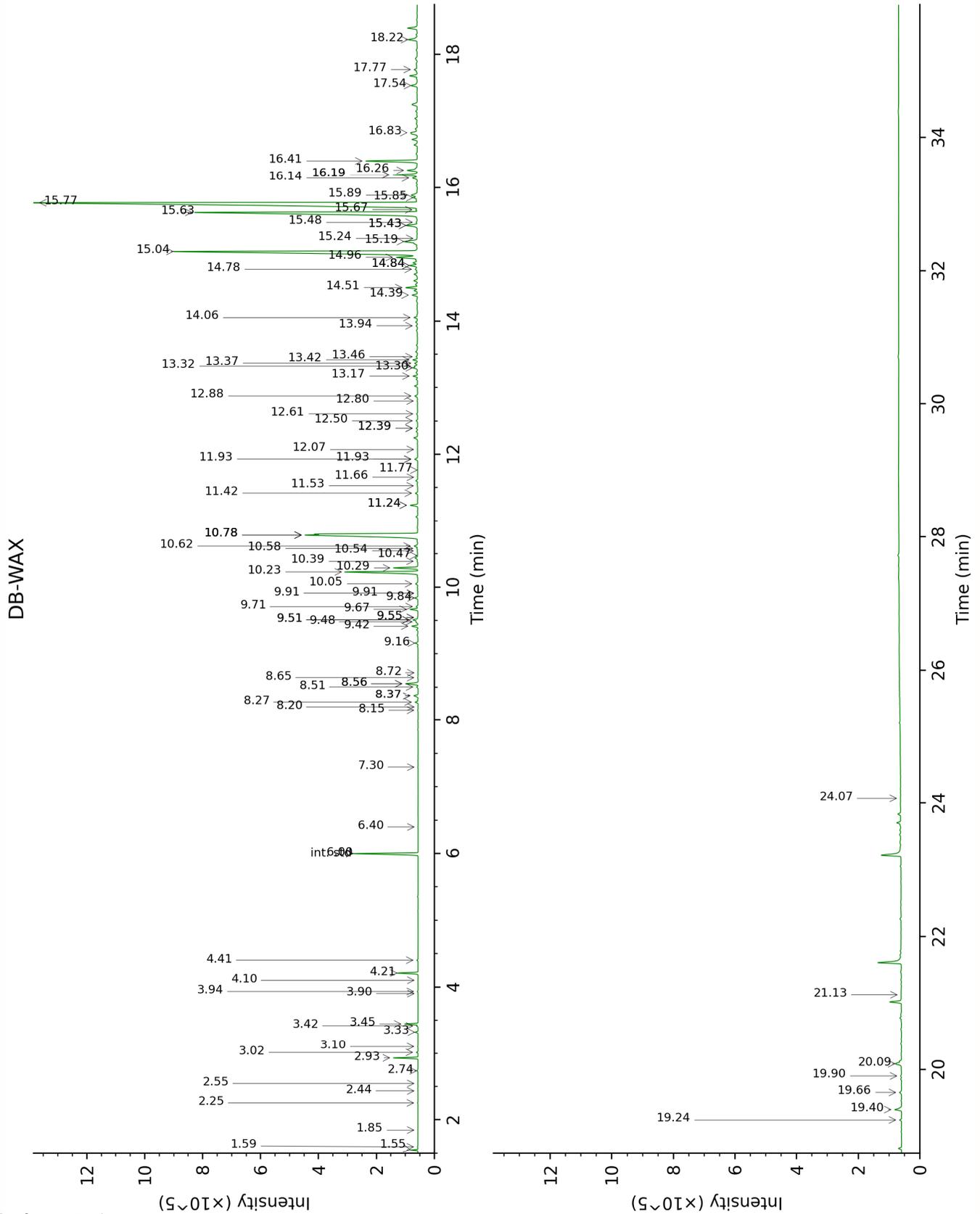
**About "consolidated" data:** The table above presents the breakdown of the sample volatile constituents after applying an algorithm to collapse data acquired from the multi-columns system of PhytoChemia into a single set of consolidated contents. In case of discrepancies between columns, the algorithm 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:** The occurrence of unknown compounds is to be expected in many samples, and does not denote particular problems unless noted otherwise in the conclusion.

**Bracketed value ([xx]):** A bracketed percent value indicate that two or more compound percentage could not be solved due to coelution.







FULL ANALYSIS DATA

2,3-Butanediol isomer II	Column DB-5			Column DB-WAX		
	1.52	806.1	0.01	8.20	1516.8	0.01
$\alpha$ -Thujene	3.04	928.4	0.01	1.60	1007.4	0.01
$\alpha$ -Pinene	3.11	933.1	0.16	1.55	1002.9	0.15
Camphene	3.30	945.6	tr	1.85	1031.4	tr
Sabinene	3.71*	973.3	[0.02]	2.44	1087.4	0.01
$\beta$ -Pinene	3.71*	973.3	[0.02]	2.26	1070.3	0.02
3-Methyl-3-cyclohexenone	3.83	981.3	tr			
Myrcene	4.02	994.2	0.05	3.02	1134.8	0.05
2-Carene	4.06	996.7	tr	2.55	1098.2	0.01
$\alpha$ -Phellandrene	4.16	1003.5	0.70	2.93	1128.4	0.69
$\Delta$ 3-Carene	4.25	1009.1	0.03	2.74	1113.5	0.03
$\alpha$ -Terpinene	4.35	1015.7	0.01	3.10	1141.5	0.01
<i>para</i> -Cymene	4.47	1023.1	0.67	4.21	1225.0	0.65
Limonene	4.55*	1028.4	[0.55]	3.33	1158.7	0.09
$\beta$ -Phellandrene	4.55*	1028.4	[0.55]	3.42	1165.8	0.04
1,8-Cineole	4.55*	1028.4	[0.55]	3.45	1168.0	0.42
(Z)- $\beta$ -Ocimene	4.76	1041.5	tr	3.90	1202.9	tr
(E)- $\beta$ -Ocimene	4.91	1051.0	tr	4.10	1217.3	tr
$\gamma$ -Terpinene	5.02	1058.4	0.02	3.94	1205.2	0.02
<i>para</i> -Cymenene	5.48*	1087.3	[0.04]	6.40	1382.6	0.01
Terpinolene	5.48*	1087.3	[0.04]	4.40	1238.8	0.04
Linalool	5.71	1102.1	tr	8.15	1513.0	0.02
<i>cis-para</i> -Menth-2-en-1-ol	5.97	1118.9	0.01	8.27	1522.5	0.11
Camphor	6.27	1137.9	0.01	7.30	1448.9	0.01
Borneol	6.65	1162.5	tr	9.91*	1652.8	[0.01]
$\delta$ -Terpineol	6.68	1164.7	tr	9.55*	1623.2	[0.02]
Terpinen-4-ol	6.83	1174.5	0.02	8.65	1552.0	0.02
4-Methylacetophenone	6.89	1178.5	0.05	10.58	1707.9	0.03
<i>para</i> -Cymen-8-ol	6.97	1183.3	0.02	11.77	1801.5	tr
$\alpha$ -Terpineol	7.05	1188.7	0.03	9.91*	1652.8	[0.01]
<i>cis</i> - $\alpha$ -Phellandrene epoxide (iPr vs Me)	7.21	1198.8	0.07	11.24*	1755.2	[0.29]
Unknown CULO II [m/z 119, 91 (37), 77 (18), 117 (17), 79 (12), 120 (11)... 148? (8)]	7.24	1201.0	0.01			
<i>trans</i> -Piperitol	7.32	1206.1	0.01	10.48	1699.1	0.01
Unknown SCMO I [m/z 43, 111 (88), 126 (74), 125 (61)... 168?]	7.50	1218.4	0.01	11.42	1771.0	0.09

(2)]						
Unknown CIAU II [m/z 137, 152 (28), 43 (25), 91 (24), 109 (23), 119 (19)]	7.75	1235.4	0.01	11.53	1780.6	0.01
Carvotanacetone	7.82	1239.9	tr	9.55*	1623.2	[0.02]
Unknown SCMO II [m/z 93, 43 (60), 108 (58), 69 (36), 41 (35)... 150 (5), 184 (1)]	8.56	1290.1	0.01	13.30	1943.3	0.20
Thymol	8.79	1306.3	0.02	15.24	2133.6	0.03
Carvacrol	8.91	1311.2	0.06	15.48	2158.3	0.07
Unknown SCMO III [m/z 43, 97 (99), 107 (47), 41 (35), 55 (30)...]	9.19	1331.5	0.01	13.46	1959.1	0.07
Unknown CULO III [m/z 105, 91 (66), 120 (53), 93 (48), 77 (47), 71 (46), 43 (37), 145 (22)... 178 (2)]	9.70	1367.6	0.01	11.66	1791.9	0.01
Unknown CULO IV [m/z 119, 161 (36), 43 (33), 176 (26), 91 (24), 105 (22)]	9.80	1374.7	0.06	12.61	1878.6	0.04
Unknown CULO VI [m/z 43, 105 (50), 120 (40), 145 (36), 119 (33), 93 (30)... 176 (6)]	10.00	1388.7	0.05	11.93*	1816.5	[0.13]
Unknown CULO IX [m/z 119, 93 (83), 91 (51), 77 (32), 41 (31)... 202 (16)]	10.13	1397.8	0.07	8.51	1541.0	0.06
(Z?)-Vestitenone, or analog	10.25*	1406.4	[0.13]	11.93*	1816.5	[0.13]
Acora-3,7(14)-diene	10.25*	1406.4	[0.13]	8.37*	1530.0	[0.19]
β-Caryophyllene	10.34	1413.8	0.52	8.56*	1544.9	[0.52]
α-Santalene	10.40	1418.2	0.17	8.37*	1530.0	[0.19]
Caryophylla- 4(12),8(13)-diene	10.48	1424.2	0.01	8.72	1557.6	0.01
γ-Elemene	10.58	1431.6	0.11	9.16	1592.4	0.11
trans-α-Bergamotene	10.63	1435.0	0.06	8.56*	1544.9	[0.52]
Unknown CULO LVI [m/z 91, 129 (98), 143 (94), 185 (81), 200	10.72	1441.8	0.20			

(76)...						
(E)-Vestitenone	10.73	1443.1	0.03	12.39*	1858.8	[0.05]
Unknown CULO X [m/z 69, 91 (78), 109 (54), 202 (43), 41 (36), 120 (34)]	10.80*	1448.0	[0.26]	9.51*	1620.2	[0.20]
$\alpha$ -Humulene	10.80*	1448.0	[0.26]	9.42	1612.5	0.24
Sesquisabinene B	10.92*†	1456.9	[0.15]	9.48	1617.9	0.10
(E)- $\beta$ -Farnesene	10.92*†	1456.9	[0.15]	9.67	1633.2	0.29
$\beta$ -Acoradiene	10.95*†	1459.5	[0.32]	9.51*	1620.2	[0.20]
<i>trans</i> - $\beta$ -Bergamotene	11.21*	1478.9	[0.17]	9.71	1636.5	0.06
$\gamma$ -Curcumene	11.21*	1478.9	[0.17]	9.84	1647.1	0.12
Unknown CULO XI [m/z 95, 119 (77), 91 (72), 105 (64), 202 (63), 93 (61), 145 (57), 131 (56)]	11.26*	1482.9	[3.68]	10.05	1664.5	0.10
<i>ar</i> -Curcumene	11.26*	1482.9	[3.68]	10.78*†	1725.1	[6.42]
$\alpha$ -Zingiberene	11.45	1496.6	3.16	10.23	1679.0	3.14
Unknown CULO XII [m/z 119, 91 (14), 120 (10), 117 (9)... 200? (2)]	11.54	1503.6	0.04	12.08	1829.8	0.01
$\beta$ -Curcumene	11.61*	1508.9	[0.92]	10.39	1692.1	0.02
$\beta$ -Bisabolene	11.61*	1508.9	[0.92]	10.29	1684.0	0.87
Unknown CULO XIII [m/z 93, 91 (62), 119 (57), 105 (44), 43 (43)... 220? (1)]	11.64	1511.6	0.09			
Unknown CULO LIV [m/z 121, 93 (56), 91 (12), 94 (11), 122 (10)...220]	11.71	1516.7	0.18	13.42	1954.6	0.19
$\beta$ - Sesquiphellandrene	11.81	1524.8	5.45	10.78*†	1725.1	[6.42]
(E)- $\gamma$ -Bisabolene	11.85*†	1527.7	[0.16]	10.62	1711.1	0.15
Selina-4(15),7(11)- diene	11.89*†	1531.4	[0.17]	10.78*†	1725.1	[6.42]
Selina-3,7(11)-diene	11.94	1534.8	0.09	10.78*†	1725.1	[6.42]
Unknown CULO XV [m/z 91, 93 (82), 79 (79), 77 (68), 67 (55), 41 (49)... 202 (12)]	12.14*†	1550.8	[0.38]	10.54	1704.8	0.02
Germacrene B	12.14*†	1550.8	[0.38]	11.24*	1755.2	[0.29]
<i>cis</i> -Sesquisabinene	12.16*†	1552.6	[0.07]	13.37	1949.8	0.13

hydrate						
Unknown CULO XVI [m/z 138, 96 (100), 95 (85), 109 (74), 110 (60), 105 (57)... 220 (10)]	12.24*	1558.3	[0.09]	12.39*	1858.8	[0.05]
Unknown CULO XVII [m/z 96, 138 (97), 95 (70), 109 (69), 67 (49), 110 (49), 41 (43), 79 (42)... 220 (10)]	12.24*	1558.3	[0.09]	12.50	1869.1	0.06
(E)-Nerolidol	12.31	1564.1	0.09	13.94	2003.9	0.06
Unknown CULO XVIII [m/z 109, 67 (30), 43 (24), 91 (19)...]	12.33	1566.1	0.16			
Santalenone	12.45*	1575.4	[0.50]			
Caryophyllene oxide	12.45*	1575.4	[0.50]	12.88	1903.2	0.13
Unknown CULO XIX [m/z 105, 83 (65), 120 (41), 119 (35), 91 (29), 55 (22)... 218? (t)]	12.45*	1575.4	[0.50]	13.17	1931.5	0.17
Caryophyllene oxide isomer	12.45*	1575.4	[0.50]	12.80	1896.2	0.02
ar-Turmerol	12.48	1577.4	0.60	15.43*	2153.4	[0.57]
trans-Sesquisabinene hydrate	12.57	1584.8	0.02	14.39	2049.2	0.22
ar-Dihydroturmerone	12.62*	1588.5	[0.46]	14.06	2016.1	0.14
Unknown CULO XXI [m/z 43, 91 (63), 41 (61), 79 (58), 95 (49), 93 (47)... 202 (36)...]	12.62*	1588.5	[0.46]			
Unknown CULO XXIV [m/z 94, 79 (81), 91 (44), 43 (40), 125 (34), 77 (33), 93 (30)... 218 (11)]	12.77*	1600.6	[0.71]	13.32	1945.6	0.12
Unknown CULO XXII [m/z 119, 132 (17), 91 (12), 120 (10), 117 (9)... 216? (2)]	12.77*	1600.6	[0.71]	14.84*	2092.7	[0.34]
cis-Zingiberenol	12.91	1612.1	0.59	14.51	2060.2	0.47
Unknown CULO XXV [m/z 119, 85 (92), 105 (37), 120 (36), 91 (28)... 218 (6)]	13.04*	1623.1	[0.58]	16.26	2239.6	0.45

Eremoligenol?	13.04*	1623.1	[0.58]	14.96	2104.7	1.02
Unknown CULO XXVI [m/z 120, 91 (29), 43 (25), 93 (23), 77 (21)... 218 (1)]	13.12	1629.6	0.44			
<i>trans</i> -Zingiberenol	13.17	1633.2	0.84	15.19	2128.8	0.77
Unknown CULO XXVII [m/z 83, 109 (45), 43 (43), 55 (36), 41 (35)... 220 (3)]	13.28	1642.5	0.35	15.89	2199.8	0.36
$\alpha$ -Turmerone	13.62*†	1670.6	[32.07]	15.77	2188.0	27.99
$\alpha$ -Turmerone	13.62*†	1670.6	[32.07]	15.04	2113.6	14.80
( <i>E</i> )- $\alpha$ -Santalal	13.62*†	1670.6	[32.07]	14.78	2087.2	0.13
Unknown COGU XVII [m/z 95, 96 (40), 69 (26), 109 (24), 41 (23)...222 (6)]	13.62*†	1670.6	[32.07]	16.14	2226.8	0.23
Unknown AMBA XV [m/z 69, 41 (90), 123 (74), 122 (51)... 206 (14), 218 (2)]	13.79	1685.4	0.15	15.85	2195.9	0.17
Unknown ZIOF XXXVIII [m/z 137, 119 (70), 84 (69), 41 (68), 69 (53), 55 (45), 109 (38)... 222 (2)]	13.84*	1689.5	[0.57]	16.19*	2232.1	[1.08]
Unknown ZIOF XXVI [m/z 69, 41 (59), 118 (33), 43 (32), 55 (31)... 234? (t)]	13.84*	1689.5	[0.57]	16.83	2299.3	0.48
Unknown CULO XXVIII [m/z 199, 132 (99), 59 (25), 91 (20), 117 (19), 43 (14)... 216? (6)]	13.91	1695.0	0.27	17.78	2402.6	0.14
$\beta$ -Turmerone	14.00*†	1702.8	[13.66]	15.63	2173.4	13.30
( <i>E</i> )- $\gamma$ -Atlantone	14.03*†	1705.0	[0.21]	15.43*	2153.4	[0.57]
Curcuphenol	14.13*	1714.0	[0.34]	19.24	2570.0	0.08
( <i>Z</i> )- $\alpha$ -Atlantone	14.13*	1714.0	[0.34]	15.67	2177.4	0.07
(6 <i>S</i> ,7 <i>R</i> )-Bisabolone	14.46	1742.6	1.10	16.19*	2232.1	[1.08]
Unknown CULO XXIX [m/z 120, 91 (22), 59 (20), 121 (19), 105 (15)... 218 (1)]	14.50	1745.4	0.06	14.84*	2092.7	[0.34]
Xanthorizzhol?	14.53	1748.2	0.08	19.90	2648.1	0.05

Unknown CULO LX [m/z 83, 105 (81), 93 (74), 120 (71), 109 (65), 91 (58)...]	14.56	1750.7	0.29			
Unknown CULO XXXI [m/z 83, 55 (21), 43 (13), 41 (9), 91 (8)... 234? (1)]	14.65	1759.1	0.45	17.54	2376.4	0.32
Unknown CULO XXXII [m/z 119, 83 (30), 91 (14), 120 (11), 114 (9)... 234 (1)]	14.69	1762.1	0.53	18.22	2453.0	0.48
(E)- $\alpha$ -Atlantone	14.80	1772.1	2.27	16.40	2254.5	2.18
Unknown CULO XXXIV [m/z 95, 136 (77), 83 (68), 125 (55), 109 (40), 110 (39)... 234 (7)]	14.95	1785.1	0.16	19.40	2588.2	0.37
Unknown CULO LXI [m/z 83, 120 (39), 121 (38), 119 (30), 123 (29), 55 (19)...218 (5)]	15.06	1794.3	0.32			
Unknown CULO XXXIII [m/z 83, 93 (61), 55 (24), 94 (24), 43 (22), 91 (19)... 234? (1)]	15.13	1800.2	0.08			
Unknown AMBA XVIII [m/z 69, 43 (95), 41 (84), 109 (78), 95 (54), 93 (49)... 177 (36), 220 (2)...]	15.18*	1805.1	[0.76]	20.09	2670.2	0.38
Unknown CULO LVIII [m/z 83, 121 (74), 114 (74), 93 (40), 55 (20), 91 (20)...]	15.18*	1805.1	[0.76]			
Unknown CULO XXXV [m/z 83, 119 (56), 95 (53), 234 (32), 91 (30)]	15.29	1814.5	0.07	19.66	2618.4	0.10
Unknown CULO XXXVI [m/z 83, 136 (51), 43 (46), 109 (29), 55 (26), 119 (22)...234 (1)]	15.44	1828.9	0.07			

Unknown CULO XXXVII [m/z 83, 136 (36), 55 (26), 109 (21), 79 (17), 43 (16)... 232 (11)]	15.49	1833.1	0.10			
Unknown CULO XXXVIII [m/z 43, 83 (37), 109 (21), 55 (19), 111 (17)...]	15.61	1843.7	0.04			
Unknown CULO XXXIX [m/z 83, 107 (37), 43 (32), 135 (30), 55 (27)...]	15.71	1853.3	0.10			
Unknown CULO XLI [m/z 118, 83 (68), 55 (25), 117 (20), 43 (16)... 232 (1)]	15.81	1862.6	0.08	21.13	2797.8	0.02
Unknown CULO XLII [m/z 83, 43 (24), 55 (21), 109 (15), 135 (14)... 232 (1)]	15.95	1875.1	0.58			
Unknown CULO LXII [m/z 118, 83 (89), 135 (58), 117 (20), 55 (19), 136 (18)...]	16.03	1882.6	0.04			
Unknown CULO LXVII [m/z 83, 137 (86), 110 (70), 109 (31), 95 (29)...]	16.15	1893.1	0.22			
Unknown CULO XLIII [m/z 83, 43 (14), 55 (14), 92 (7), 91 (7)... 232 (1)]	16.31	1907.5	0.03			
Unknown CULO XLIV [m/z 83, 55 (15), 43 (14), 91 (8)... 232 (1)]	16.40	1916.0	0.05			
Tumeronol B?	16.56	1931.3	0.18			
Unknown CULO XLV [m/z 83, 149 (24), 135 (24), 55 (24), 43 (13)... 232 (3)]	16.60	1935.0	0.03			
Palmitic acid	16.96	1969.8	1.11			
Unknown CULO XLVIII [m/z 83, 55 (22), 43 (22), 119 (19), 41	17.04	1977.1	0.25			

(10)...						
Unknown CULO XLVIII [m/z 83, 43 (22), 55 (20), 98 (14), 119 (14)...	17.12	1985.4	0.06	24.07	3184.6	0.01
Unknown CULO XLIX [m/z 83, 135 (32), 55 (26), 125 (18), 41 (13), 109 (12)... 248 (1)]	17.90	2061.0	0.01			
Unknown CULO L [m/z 83, 55 (18), 43 (16), 98 (11)...	18.67	2139.4	0.04			
Stearic acid	18.96	2168.8	1.12			
Total reported		95.62%			88.67%	

\*: Two or more compounds are coeluting on this column

[xx]: Duplicate percentage due to coelutions, only the first one is 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