

Date : 2023-11-28

CERTIFICATE OF ANALYSIS - GC PROFILING

SAMPLE IDENTIFICATION

**Internal code :** 23K21-PTH01

**Customer Identification :** Organic Cypress - Spain - CB9107R

**Type :** Essential Oil

**Source :** *Cupressus sempervirens*

**Customer :** Plant Therapy

Checked and approved by:

Alexis St-Gelais, Ph. D., Chimiste 2013-174

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## GAS CHROMATOGRAPHIC ANALYSIS

**Method :** PC-MAT-014 - Analysis of the composition of an essential oil or other volatile liquid by FAST GC-FID



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

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

**Date :** 2023-11-23

## PHYSICOCHEMICAL DATA

**Refractive index :**  $1.4714 \pm 0.0003$  (20 °C)

**Method :** PC-MAT-016 - Measure of the refractive index of a liquid.

**Analyst :** Cindy Caron B. Sc.

**Date :** 2023-11-22

## 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                                | 0.01  | Simple phenolic        |
| Unknown                                | tr    | Alkene                 |
| Cyclofenchene                          | 0.01  | Monoterpene            |
| Bornylene                              | 0.05  | Monoterpene            |
| Tricyclene                             | 0.18  | Monoterpene            |
| $\alpha$ -Thujene                      | 0.56  | Monoterpene            |
| $\alpha$ -Pinene                       | 52.70 | Monoterpene            |
| $\alpha$ -Fenchene                     | 0.60  | Monoterpene            |
| Camphene                               | 0.25  | Monoterpene            |
| Thuja-2,4(10)-diene                    | 0.03  | Monoterpene            |
| 3,7,7-Trimethylcyclohepta-1,3,5-triene | 0.10  | Monoterpene            |
| $\beta$ -Pinene                        | 0.86  | Monoterpene            |
| Sabinene                               | 0.76  | Monoterpene            |
| Pseudolimonene isomer                  | 0.01  | Monoterpene            |
| Myrcene                                | 1.83  | Monoterpene            |
| 2-Carene                               | 0.01  | Monoterpene            |
| $\alpha$ -Phellandrene                 | 0.09  | Monoterpene            |
| Pseudolimonene                         | 0.01  | Monoterpene            |
| $\Delta^3$ -Carene                     | 22.97 | Monoterpene            |
| $\alpha$ -Terpinene                    | 0.31  | Monoterpene            |
| <i>meta</i> -Cymene                    | 0.05  | Monoterpene            |
| <i>para</i> -Cymene                    | 0.44  | Monoterpene            |
| Sylvestrene                            | 0.14  | Monoterpene            |
| 1,8-Cineole                            | 0.10  | Monoterpenic ether     |
| Limonene                               | 2.08  | Monoterpene            |
| $\beta$ -Phellandrene                  | 0.40  | Monoterpene            |
| (Z)- $\beta$ -Ocimene                  | 0.01  | Monoterpene            |
| (E)- $\beta$ -Ocimene                  | 0.03  | Monoterpene            |
| Unknown                                | 0.03  | Monoterpene            |
| $\gamma$ -Terpinene                    | 0.58  | Monoterpene            |
| <i>cis</i> -Sabinene hydrate           | 0.01  | Monoterpenic alcohol   |
| Unknown                                | 0.01  | Oxygenated monoterpene |
| <i>cis</i> -Linalool oxide (fur.)      | 0.01  | Monoterpenic alcohol   |
| <i>meta</i> -Cymenene                  | 0.01  | Monoterpene            |
| Terpinolene isomer                     | 0.03  | Monoterpene            |
| Isoterpinolene                         | 0.09  | Monoterpene            |
| <i>para</i> -Cymenene                  | 0.10  | Monoterpene            |
| Terpinolene                            | 2.81  | Monoterpene            |
| $\alpha$ -Pinene oxide                 | 0.03  | Monoterpenic ether     |
| <i>trans</i> -Sabinene hydrate         | 0.01  | Monoterpenic alcohol   |

|  |      |                        |
|--|------|------------------------|
| Unknown  | 0.02 | Unknown                |
| Perillene  | 0.01 | Monoterpenic ether     |
| Linalool   | 0.33 | Monoterpenic alcohol   |
| endo-Fenchol                                     | 0.03 | Monoterpenic alcohol   |
| <i>cis</i> -para-Menth-2-en-1-ol                 | 0.03 | Monoterpenic alcohol   |
| 4-Hydroxy-4-methylcyclohex-2-enone               | 0.04 | Aliphatic alcohol      |
| <i>trans</i> -Pinocarveol                        | 0.05 | Monoterpenic alcohol   |
| Camphor  | 0.16 | Monoterpenic ketone    |
| Epoxyterpinolene                                 | 0.07 | Monoterpenic ether     |
| Camphene hydrate                                 | 0.01 | Monoterpenic alcohol   |
| <i>meta</i> -Mentha-4,6-dien-8-ol                | 0.02 | Monoterpenic alcohol   |
| Karahanaenone                                    | 0.21 | Monoterpenic ketone    |
| Borneol  | 0.05 | Monoterpenic alcohol   |
| $\alpha$ -Phellandren-8-ol                       | 0.02 | Monoterpenic alcohol   |
| Umbellulone                                      | 0.08 | Monoterpenic ketone    |
| Terpinen-4-ol                                    | 0.92 | Monoterpenic alcohol   |
| <i>meta</i> -Cymen-8-ol                          | 0.02 | Monoterpenic alcohol   |
| <i>para</i> -Cymen-8-ol                          | 0.08 | Monoterpenic alcohol   |
| Unknown  | 0.02 | Oxygenated monoterpene |
| $\alpha$ -Terpineol                              | 0.27 | Monoterpenic alcohol   |
| Myrtenal   | 0.05 | Monoterpenic aldehyde  |
| Myrtenol   | 0.03 | Monoterpenic alcohol   |
| Unknown  | 0.06 | Oxygenated monoterpene |
| Verbenone  | 0.06 | Monoterpenic ketone    |
| Unknown  | 0.01 | Unknown                |
| <i>trans</i> -Carveol                            | 0.02 | Monoterpenic alcohol   |
| <i>cis</i> -Carveol                              | 0.01 | Monoterpenic alcohol   |
| Unknown  | 0.06 | Oxygenated monoterpene |
| Carvacrol methyl ether                           | 0.03 | Monoterpenic ether     |
| Car-3-en-2-one                                   | 0.02 | Monoterpenic ketone    |
| Linalyl acetate                                  | 0.03 | Monoterpenic ester     |
| ( <i>trans</i> ?)-Linalool oxide acetate (fur.)? | 0.05 | Monoterpenic ester     |
| Unknown  | 0.02 | Oxygenated monoterpene |
| Bornyl acetate                                   | 0.11 | Monoterpenic ester     |
| Cuminol  | 0.01 | Monoterpenic alcohol   |
| Unknown  | 0.31 | Monoterpenic ester     |
| Terpinen-4-yl acetate                            | 0.02 | Monoterpenic ester     |
| Thymol analogue II                               | 0.01 | Monoterpenic alcohol   |
| Thymol   | 0.02 | Monoterpenic alcohol   |
| Unknown  | 0.02 | Oxygenated monoterpene |
| Thymol analogue III                              | 0.03 | Monoterpenic alcohol   |
| Unknown  | 0.06 | Unknown                |
| Unknown  | 0.29 | Monoterpenic ester     |
| Unknown  | 0.01 | Unknown                |
| $\alpha$ -Terpinyl acetate                       | 2.26 | Monoterpenic ester     |

|                             |      |                          |
|-----------------------------|------|--------------------------|
| α-Cubebene                  | 0.14 | Sesquiterpene            |
| α-Ylangene                  | 0.02 | Sesquiterpene            |
| α-Copaene                   | 0.06 | Sesquiterpene            |
| 2-epi-α-Funebrene           | 0.01 | Sesquiterpene            |
| β-Bourbonene                | 0.03 | Sesquiterpene            |
| β-Cubebene                  | 0.03 | Sesquiterpene            |
| β-Elemene                   | 0.05 | Sesquiterpene            |
| Sesquithujene               | 0.04 | Sesquiterpene            |
| β-Funebrene                 | 0.24 | Sesquiterpene            |
| α-Cedrene                   | 0.23 | Sesquiterpene            |
| β-Cedrene                   | 0.21 | Sesquiterpene            |
| β-Caryophyllene             | 0.23 | Sesquiterpene            |
| β-Copaene                   | 0.05 | Sesquiterpene            |
| cis-Muurola-3,5-diene       | 0.03 | Sesquiterpene            |
| α-Humulene                  | 0.17 | Sesquiterpene            |
| cis-Muurola-4(15),5-diene   | 0.10 | Sesquiterpene            |
| cis-Cadina-1(6),4-diene     | 0.03 | Sesquiterpene            |
| Unknown                     | 0.01 | Sesquiterpene            |
| trans-Cadina-1(6),4-diene   | 0.03 | Sesquiterpene            |
| α-Amorphene                 | 0.18 | Sesquiterpene            |
| Germacrene D                | 0.48 | Sesquiterpene            |
| trans-Muurola-4(15),5-diene | 0.03 | Sesquiterpene            |
| β-Alaskene                  | 0.09 | Sesquiterpene            |
| Epizonarene                 | 0.06 | Sesquiterpene            |
| α-Muurolene                 | 0.11 | Sesquiterpene            |
| δ-Amorphene                 | 0.02 | Sesquiterpene            |
| γ-Cadinene                  | 0.11 | Sesquiterpene            |
| α-Alaskene                  | 0.04 | Sesquiterpene            |
| δ-Cadinene                  | 0.33 | Sesquiterpene            |
| trans-Calamenene            | 0.02 | Sesquiterpene            |
| trans-Cadina-1,4-diene      | 0.04 | Sesquiterpene            |
| α-Cadinene                  | 0.03 | Sesquiterpene            |
| α-Calacorene                | 0.04 | Sesquiterpene            |
| Salviadienol?               | 0.06 | Sesquiterpenic alcohol   |
| Caryophyllene oxide         | 0.04 | Sesquiterpenic ether     |
| Caryophyllene oxide isomer  | 0.01 | Sesquiterpenic ether     |
| allo-Cedrol                 | 0.03 | Sesquiterpenic alcohol   |
| α-Cedrol                    | 1.17 | Sesquiterpenic alcohol   |
| Widdrol                     | 0.01 | Sesquiterpenic alcohol   |
| epi-Cedrol                  | 0.01 | Sesquiterpenic alcohol   |
| Torilenol                   | 0.03 | Oxygenated sesquiterpene |
| α-Acorenol                  | 0.02 | Sesquiterpenic alcohol   |
| 1-epi-Cubenol               | 0.02 | Sesquiterpenic alcohol   |
| Unknown                     | 0.05 | Unknown                  |
| τ-Cadinol                   | 0.02 | Sesquiterpenic alcohol   |

|                            |              |                        |
|----------------------------|--------------|------------------------|
| τ-Muurolol                 | 0.02         | Sesquiterpenic alcohol |
| α-Muurolol                 | 0.02         | Sesquiterpenic alcohol |
| α-Cadinol                  | 0.02         | Sesquiterpenic alcohol |
| Unknown                    | 0.04         | Unknown                |
| Eudesma-4(15),7-dien-1β-ol | 0.01         | Sesquiterpenic alcohol |
| Manoyl oxide               | 0.07         | Diterpenic ether       |
| Isopimaradiene             | 0.02         | Diterpene              |
| <b>Consolidated total</b>  | <b>99.26</b> |                        |

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

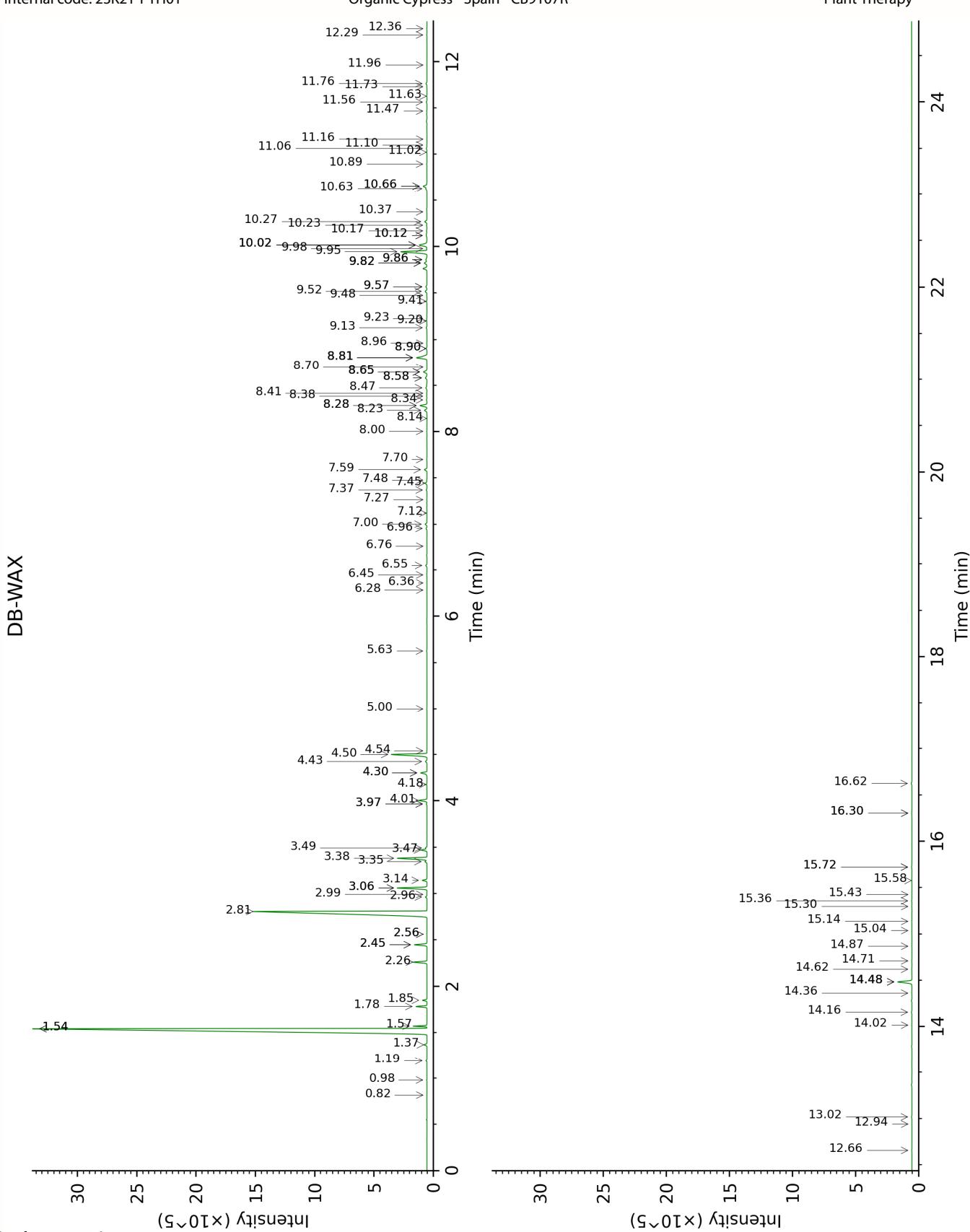
Note: no correction factor was applied

**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.

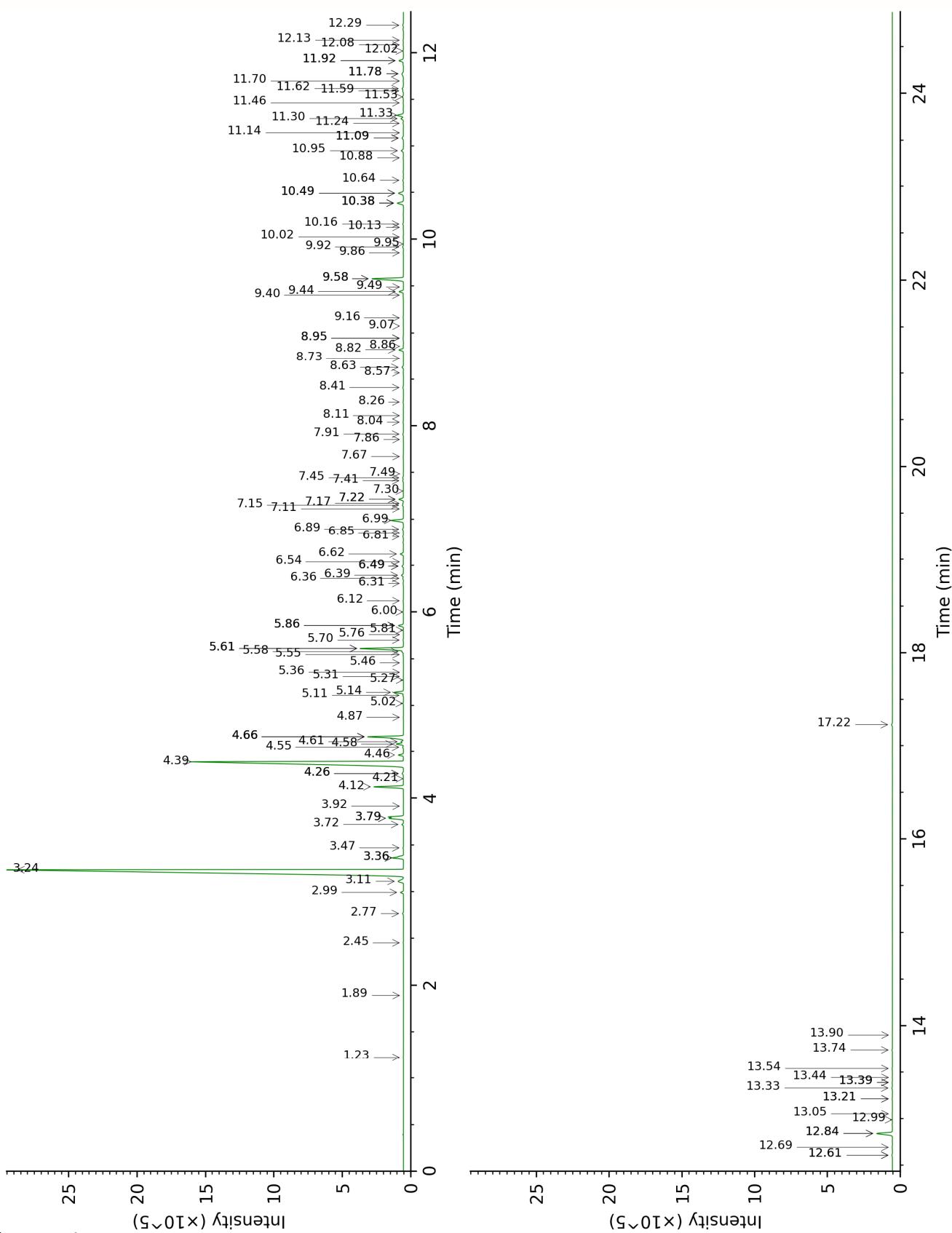
**Unknowns:** Unknown compounds' mass spectral data is presented in the "Full analysis data" table. The occurrence of unknown compounds is to be expected in many samples, and does not denote particular problems unless noted otherwise in the conclusion.

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

This page was intentionally left blank. The following pages present the complete data of the analysis.



DB-5



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FULL ANALYSIS DATA

| Toluene  | Column DB-WAX |        |         | Column DB-5 |        |        |
|--|---------------|--------|---------|-------------|--------|--------|
|  | 1.54*         | 998.9  | [52.64] | 1.23        | 759.9  | 0.01   |
| Unknown BOCA I<br>[m/z 109, 67 (32), 81<br>(14), 41 (12), 124<br>(10)]                             | 0.82          | 879.1  | tr      | 1.89        | 832.8  | tr     |
| Cyclofenchene  | 0.98          | 914.8  | 0.01    | 2.45        | 878.9  | 0.01   |
| Bornylene  | 1.19          | 946.4  | 0.05    | 2.77        | 904.5  | 0.05   |
| Tricyclene   | 1.37          | 973.2  | 0.18    | 2.99        | 919.6  | 0.18   |
| $\alpha$ -Thujene  | 1.57          | 1001.6 | 0.56    | 3.11        | 927.3  | 0.56   |
| $\alpha$ -Pinene   | 1.54*         | 998.9  | [52.64] | 3.24        | 935.4  | 52.70  |
| $\alpha$ -Fenchene   | 1.78          | 1021.6 | 0.60    | 3.36*†      | 943.8  | [0.66] |
| Camphene   | 1.85          | 1027.9 | 0.25    | 3.36*†      | 943.8  | [0.66] |
| Thuja-2,4(10)-diene<br>3,7,7-  | 2.45*         | 1084.4 | [0.80]  | 3.47        | 950.8  | 0.03   |
| Trimethylcyclohepta-<br>1,3,5-triene   | 3.06*         | 1133.2 | [1.94]  | 3.72        | 967.3  | 0.10   |
| $\beta$ -Pinene  | 2.26          | 1066.7 | 0.86    | 3.79*†      | 971.6  | [0.83] |
| Sabinene   | 2.45*         | 1084.4 | [0.80]  | 3.79*†      | 971.6  | [0.83] |
| Pseudolimonene<br>isomer   | 2.56*         | 1095.0 | [0.01]  | 3.92        | 980.1  | 0.01   |
| Myrcene  | 3.06*         | 1133.2 | [1.94]  | 4.12        | 993.7  | 1.83   |
| 2-Carene   | 2.56*         | 1095.0 | [0.01]  | 4.21        | 999.4  | 0.01   |
| $\alpha$ -Phellandrene   | 2.96          | 1125.9 | 0.09    | 4.26*       | 1003.0 | [0.11] |
| Pseudolimonene   | 2.99          | 1127.9 | 0.01    | 4.26*       | 1003.0 | [0.11] |
| $\Delta^3$ -Carene   | 2.81          | 1114.0 | 22.96   | 4.39        | 1011.0 | 22.97  |
| $\alpha$ -Terpinene  | 3.14          | 1139.5 | 0.30    | 4.46        | 1015.5 | 0.31   |
| meta-Cymene  | 4.30*         | 1225.0 | [0.49]  | 4.55        | 1020.7 | 0.05   |
| para-Cymene  | 4.30*         | 1225.0 | [0.49]  | 4.58        | 1022.8 | 0.44   |
| Sylvestrene  | 3.35          | 1154.7 | 0.14    | 4.61        | 1024.4 | 0.14   |
| 1,8-Cineole  | 3.49          | 1165.8 | 0.10    | 4.66*       | 1027.7 | [2.54] |
| Limonene   | 3.38          | 1157.5 | 2.08    | 4.66*       | 1027.7 | [2.54] |
| $\beta$ -Phellandrene  | 3.47          | 1164.2 | 0.40    | 4.66*       | 1027.7 | [2.54] |
| (Z)- $\beta$ -Ocimene  | 3.97*         | 1201.3 | [0.04]  | 4.87        | 1040.6 | 0.01   |
| (E)- $\beta$ -Ocimene  | 4.18          | 1216.1 | 0.04    | 5.02        | 1050.4 | 0.03   |
| Unknown CUSE I<br>[m/z 93, 91 (54), 92<br>(31), 77 (29), 79 (17),<br>43 (13), 41 (10), 136<br>(9)] | 3.97*         | 1201.3 | [0.04]  | 5.11        | 1055.8 | 0.03   |
| $\gamma$ -Terpinene  | 4.01          | 1204.1 | 0.58    | 5.14        | 1057.8 | 0.58   |
| cis-Sabinene hydrate   | 7.12          | 1428.7 | 0.02    | 5.27        | 1066.0 | 0.01   |
| Unknown PIMA I<br>[m/z 79, 93 (60), 43   | 5.00          | 1274.3 | 0.02    | 5.31        | 1068.4 | 0.01   |

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|  |        |        |        |       |        |        |
|--|--------|--------|--------|-------|--------|--------|
| (40), 94 (35), 137 (33),<br>77 (26), 91 (20), 152<br>(18)]                                   |        |        |        |       |        |        |
| <i>cis</i> -Linalool oxide<br>(fur.)   | 6.76   | 1402.0 | 0.01   | 5.36  | 1071.1 | 0.01   |
| <i>meta</i> -Cymenene  | 6.45   | 1379.9 | 0.02   | 5.46  | 1077.5 | 0.01   |
| Terpinolene isomer   | 4.54   | 1241.9 | 0.02   | 5.55  | 1083.0 | 0.03   |
| Isoterpinolene   | 4.43   | 1233.7 | 0.12   | 5.58  | 1085.0 | 0.09   |
| <i>para</i> -Cymenene  | 6.55   | 1387.1 | 0.10   | 5.61* | 1087.1 | [2.92] |
| Terpinolene  | 4.50   | 1239.1 | 2.81   | 5.61* | 1087.1 | [2.92] |
| $\alpha$ -Pinene oxide   | 5.63   | 1321.7 | 0.03   | 5.70  | 1092.6 | 0.03   |
| <i>trans</i> -Sabinene<br>hydrate  | 8.14   | 1504.0 | 0.01   | 5.76  | 1096.3 | 0.01   |
| Unknown PINI III<br>[m/z 109, 43 (65), 95<br>(54), 119 (50), 91<br>(47)... 149 (8)...]       | 6.28   | 1368.3 | 0.02   | 5.81  | 1099.3 | 0.02   |
| Perillene  | 6.36   | 1373.7 | 0.01   | 5.86* | 1102.4 | [0.34] |
| Linalool   | 8.28*  | 1514.6 | [0.57] | 5.86* | 1102.4 | [0.34] |
| endo-Fenchol   | 8.58*  | 1537.4 | [0.16] | 6.00  | 1111.5 | 0.03   |
| <i>cis</i> - <i>para</i> -Menth-2-en-<br>1-ol  | 8.38   | 1522.3 | 0.03   | 6.12  | 1119.2 | 0.03   |
| 4-Hydroxy-4-<br>methylcyclohex-2-<br>enone   | 14.36  | 2030.5 | 0.02   | 6.31  | 1131.0 | 0.04   |
| <i>trans</i> -Pinocarveol  | 9.41   | 1601.4 | 0.04   | 6.36  | 1134.5 | 0.05   |
| Camphor  | 7.44   | 1452.4 | 0.14   | 6.40  | 1136.6 | 0.16   |
| Epoxyterpinolene   | 6.96   | 1416.6 | 0.07   | 6.49* | 1142.8 | [0.10] |
| Camphene hydrate   | 8.70   | 1546.4 | 0.01   | 6.49* | 1142.8 | [0.10] |
| <i>meta</i> -Mentha-4,6-<br>dien-8-ol  | 9.57*  | 1613.9 | [0.11] | 6.54  | 1145.8 | 0.02   |
| Karahanaenone  | 7.59   | 1463.1 | 0.21   | 6.62  | 1151.1 | 0.21   |
| Borneol  | 10.02* | 1649.9 | [0.80] | 6.81  | 1163.0 | 0.05   |
| $\alpha$ -Phellandren-8-ol   | 10.37  | 1678.5 | 0.02   | 6.85  | 1165.8 | 0.02   |
| Umbellulone  | 9.13   | 1579.4 | 0.07   | 6.89  | 1168.3 | 0.08   |
| Terpinen-4-ol  | 8.81*  | 1554.7 | [1.10] | 6.99  | 1174.4 | 0.92   |
| <i>meta</i> -Cymen-8-ol  | 11.73  | 1791.8 | 0.02   | 7.11  | 1182.2 | 0.02   |
| <i>para</i> -Cymen-8-ol  | 11.76  | 1794.8 | 0.08   | 7.15  | 1184.7 | 0.08   |
| Unknown JUVI II [m/z<br>93, 59 (85), 81 (36),<br>92 (35), 43 (34), 121<br>(20), 136 (16)...] | 9.98   | 1646.8 | 0.03   | 7.17  | 1186.0 | 0.02   |
| $\alpha$ -Terpineol  | 10.02* | 1649.9 | [0.80] | 7.22* | 1188.8 | [0.31] |
| Myrtenal   | 8.90*  | 1562.2 | [0.06] | 7.22* | 1188.8 | [0.31] |
| Myrtenol   | 11.10  | 1738.9 | 0.02   | 7.30  | 1194.4 | 0.03   |

|   |        |        |        |       |        |        |
|---|--------|--------|--------|-------|--------|--------|
| Unknown PINI IV<br>[m/z 109, 91 (100), 81 (88), 94 (75), 119 (74), 96 (73), 41 (63)... 150 (2)] | 11.06  | 1735.9 | 0.05   | 7.41  | 1201.4 | 0.06   |
| Verbenone   | 9.86*  | 1637.3 | [0.13] | 7.44  | 1203.4 | 0.06   |
| Unknown PIMA 7<br>[m/z 95, 93 (32), 121 (24), 79 (22), 91 (21), 105 (16)... 154 (2)]            | 11.16  | 1744.3 | 0.01   | 7.49  | 1206.2 | 0.01   |
| <i>trans</i> -Carveol   | 11.63  | 1783.2 | 0.02   | 7.67  | 1218.5 | 0.02   |
| <i>cis</i> -Carveol   | 11.96  | 1812.3 | 0.01   | 7.86  | 1230.7 | 0.01   |
| Unknown CIAU II<br>[m/z 137, 152 (28), 43 (25), 91 (24), 109 (23), 119 (19)]                    | 11.56  | 1777.8 | 0.05   | 7.91  | 1234.5 | 0.06   |
| Carvacrol methyl ether  | 8.81*  | 1554.7 | [1.10] | 8.04  | 1243.0 | 0.03   |
| Car-3-en-2-one  | 10.66* | 1701.6 | [0.33] | 8.11  | 1247.7 | 0.02   |
| Linalyl acetate   | 8.42   | 1524.8 | 0.03   | 8.26  | 1257.4 | 0.03   |
| ( <i>trans</i> ?)-Linalool oxide acetate (fur.)?  | 8.90*  | 1562.2 | [0.06] | 8.41  | 1267.8 | 0.05   |
| Unknown CIAU V<br>[m/z 95, 67 (45), 41 (42), 110 (42), 43 (41), 59 (36)]                        | 12.66  | 1873.1 | 0.02   | 8.57  | 1278.3 | 0.02   |
| Bornyl acetate  | 8.47   | 1529.3 | 0.11   | 8.63  | 1282.3 | 0.11   |
| Cuminol   | 14.48* | 2042.1 | [1.19] | 8.73  | 1288.9 | 0.01   |
| Unknown CUSE III<br>[m/z 121, 93 (97), 43 (81), 136 (48), 107 (47), 108 (44)...]                | 8.81*  | 1554.7 | [1.10] | 8.82  | 1295.1 | 0.31   |
| Terpinen-4-yl acetate   | 8.96   | 1566.6 | 0.02   | 8.86  | 1297.6 | 0.02   |
| Thymol analogue II  | 15.58  | 2149.2 | 0.01   | 8.94* | 1303.4 | [0.06] |
| Thymol  | 15.36  | 2127.3 | 0.02   | 8.94* | 1303.4 | [0.06] |
| Unknown CUSE IV<br>[m/z 150, 107 (98), 91 (79), 108 (61)]                                       | 12.29  | 1840.9 | 0.02   | 9.08  | 1312.5 | 0.02   |
| Thymol analogue III   |        |        |        | 9.16  | 1318.6 | 0.03   |
| Unknown CUSE V<br>[m/z 93, 92 (34), 43 (31), 91 (27)...]  |        |        |        | 9.40  | 1335.7 | 0.06   |
| Unknown CUSE VI<br>[m/z 93, 43 (50), 121 (50), 136 (35)...]                                     | 9.82*  | 1634.4 | [0.25] | 9.44  | 1338.4 | 0.29   |

|   |        |        |        |        |               |
|---|--------|--------|--------|--------|---------------|
| Unknown CIAU VI<br>[m/z 133, 105 (45), 91<br>(38), 119 (36)... 150<br>(3)]                                |        |        | 9.49   | 1341.8 | 0.01          |
| α-Terpinyl acetate  | 9.94   | 1644.2 | 2.26   | 9.58*  | 1348.0 [2.38] |
| α-Cubebene  | 7.00   | 1420.0 | 0.14   | 9.58*  | 1348.0 [2.38] |
| α-Ylangene  | 7.27   | 1439.3 | 0.01   | 9.86   | 1367.4 0.02   |
| α-Copaene   | 7.37   | 1447.0 | 0.06   | 9.92   | 1371.8 0.06   |
| 2-epi-α-Funebrene   | 7.48   | 1454.8 | 0.02   | 9.95   | 1374.0 0.01   |
| β-Bourbonene  | 7.70   | 1471.1 | 0.03   | 10.02  | 1379.2 0.03   |
| β-Cubebene  | 8.00   | 1493.4 | 0.02   | 10.13  | 1386.5 0.03   |
| β-Elemene   | 8.65*  | 1542.4 | [0.33] | 10.16  | 1389.0 0.05   |
| Sesquithujene   | 8.34   | 1519.3 | 0.04   | 10.38* | 1404.7 [0.49] |
| β-Funebrene   | 8.28*  | 1514.6 | [0.57] | 10.38* | 1404.7 [0.49] |
| α-Cedrene   | 8.23   | 1510.7 | 0.23   | 10.38* | 1404.7 [0.49] |
| β-Cedrene   | 8.58*  | 1537.4 | [0.16] | 10.49* | 1412.6 [0.44] |
| β-Caryophyllene   | 8.65*  | 1542.4 | [0.33] | 10.49* | 1412.6 [0.44] |
| β-Copaene   | 8.65*  | 1542.4 | [0.33] | 10.64  | 1423.3 0.05   |
| cis-Muurola-3,5-diene   | 9.20   | 1584.9 | 0.03   | 10.88  | 1441.2 0.03   |
| α-Humulene  | 9.52   | 1610.0 | 0.16   | 10.95  | 1446.8 0.17   |
| cis-Muurola-4(15),5-diene   | 9.57*  | 1613.9 | [0.11] | 11.09* | 1456.9 [0.12] |
| cis-Cadina-1(6),4-diene   | 9.23   | 1586.9 | 0.03   | 11.09* | 1456.9 [0.12] |
| Unknown DACA II<br>[m/z 161, 91 (57), 120<br>(46), 105 (42), 133<br>(25), 119 (22), 41 (21),<br>204 (21)] | 9.82*  | 1634.4 | [0.25] | 11.14  | 1461.1 0.01   |
| trans-Cadina-1(6),4-diene   | 9.48   | 1606.5 | 0.03   | 11.24  | 1468.6 0.03   |
| α-Amorphene   | 9.82*  | 1634.4 | [0.25] | 11.30  | 1472.3 0.18   |
| Germacrene D  | 10.02* | 1649.9 | [0.80] | 11.33  | 1475.0 0.48   |
| trans-Muurola-4(15),5-diene   | 10.12* | 1658.1 | [0.11] | 11.46  | 1484.9 0.03   |
| β-Alaskene  | 9.86*  | 1637.3 | [0.13] | 11.53  | 1489.6 0.09   |
| Epizonarene   | 10.12* | 1658.1 | [0.11] | 11.59  | 1494.4 0.06   |
| α-Muurolene   | 10.27  | 1670.1 | 0.20   | 11.62  | 1496.2 0.11   |
| δ-Amorphene   | 10.17  | 1662.2 | 0.05   | 11.70  | 1502.2 0.02   |
| γ-Cadinene  | 10.63  | 1699.4 | 0.11   | 11.78* | 1508.2 [0.19] |
| α-Alaskene  | 10.23  | 1667.0 | 0.04   | 11.78* | 1508.2 [0.19] |
| δ-Cadinene  | 10.66* | 1701.6 | [0.33] | 11.92* | 1519.2 [0.36] |
| trans-Calamenene  | 11.47  | 1769.7 | 0.02   | 11.92* | 1519.2 [0.36] |
| trans-Cadina-1,4-   | 10.90  | 1721.7 | 0.03   | 12.02  | 1527.3 0.04   |

| diene   |        |        |        |        |        |        |
|---|--------|--------|--------|--------|--------|--------|
| α-Cadinene  | 11.02  | 1732.4 | 0.02   | 12.08  | 1532.4 | 0.03   |
| α-Calacorene  | 12.36  | 1846.8 | 0.02   | 12.13  | 1536.3 | 0.04   |
| Salviadienol?   | 14.62  | 2055.1 | 0.03   | 12.29  | 1548.8 | 0.06   |
| Caryophyllene oxide   | 13.02  | 1905.5 | 0.04   | 12.61* | 1573.4 | [0.05] |
| Caryophyllene oxide isomer  | 12.94  | 1898.4 | 0.01   | 12.61* | 1573.4 | [0.05] |
| allo-Cedrol   | 14.48* | 2042.1 | [1.19] | 12.69  | 1580.1 | 0.03   |
| α-Cedrol  | 14.48* | 2042.1 | [1.19] | 12.84* | 1591.7 | [1.19] |
| Widdrol   | 14.87  | 2078.9 | 0.01   | 12.84* | 1591.7 | [1.19] |
| epi-Cedrol  | 15.04  | 2095.3 | 0.01   | 12.99  | 1603.2 | 0.01   |
| Torilenol   | 15.72* | 2163.6 | [0.05] | 13.05  | 1608.4 | 0.03   |
| α-Acorenol  | 14.71  | 2063.8 | 0.02   | 13.21* | 1621.6 | [0.03] |
| 1-epi-Cubenol   | 14.02  | 1997.4 | 0.02   | 13.21* | 1621.6 | [0.03] |
| Unknown SCTE X [m/z 43, 93 (89), 91 (88), 79 (87), 123 (76), 81 (75)...]                          | 14.16  | 2010.8 | 0.05   | 13.33  | 1631.1 | 0.05   |
| τ-Cadinol   | 15.14  | 2105.2 | 0.02   | 13.39* | 1636.1 | [0.03] |
| τ-Muurolol  | 15.30  | 2121.2 | 0.02   | 13.39* | 1636.1 | [0.03] |
| α-Muurolol  | 15.43  | 2134.0 | 0.01   | 13.44  | 1640.5 | 0.02   |
| α-Cadinol   | 15.72* | 2163.6 | [0.05] | 13.54  | 1648.5 | 0.02   |
| Unknown CUSE VIII [m/z 85, 57 (59), 79 (26), 67 (18), 41 (16), 80 (15), 81 (10), 77 (8), 238 (7)] |        |        |        | 13.74  | 1665.4 | 0.04   |
| Eudesma-4(15),7-dien-1β-ol  | 16.30* | 2223.0 | [0.03] | 13.90  | 1678.5 | 0.01   |
| Manoyl oxide  | 16.62  | 2256.3 | 0.06   | 17.22  | 1975.9 | 0.07   |
| Isopimaradiene  | 16.30* | 2223.0 | [0.03] |        |        |        |
| Total reported  |        | 98.52% |        |        | 99.25% |        |
|   |        |        |        |        |        |        |

\*: 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