

**Date :** 2026-09-08

**CERTIFICATE OF ANALYSIS - GC PROFILING**

**SAMPLE IDENTIFICATION**

**Internal code :** 26E22-PTH01

**Customer Identification :** White Camphor - China - C30111

**Type :** Essential Oil

**Source :** *Cinnamomum camphora* ct. White camphor

**Customer :** Plant Therapy

Checked and approved by:

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

*Notes: This report may not be published, including online, without the written consent from Laboratoire PhytoChemia.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. The compliance status of the sample is provided to facilitate the reading of the report. The client remains ultimately responsible for reviewing the results presented within this report and to establish compliance of the tested batch against relevant quality criteria.*

*This report is an update of the version first issued on 2026-05-28 to make a modification in the sample identification section.*

## GAS CHROMATOGRAPHIC ANALYSIS

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

**✖ISO**

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

**Analyst :** Jean-Christophe Fortin, M. Sc.

**Date :** 2026-05-27

## PHYSICOCHEMICAL DATA

**Refractive index :**  $1.4698 \pm 0.0003$  (20 °C)

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

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

**Date :** 2026-05-22

## 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                  |
|-----------------------------------|-------|------------------------|
| (3Z)-Hexenol                      | 0.01  | Aliphatic alcohol      |
| Bornylene                         | 0.01  | Monoterpene            |
| Hashishene                        | 0.03  | Monoterpene            |
| Tricyclene                        | 0.01  | Monoterpene            |
| $\alpha$ -Thujene                 | 0.37  | Monoterpene            |
| $\alpha$ -Pinene                  | 6.22  | Monoterpene            |
| Camphene                          | 0.38  | Monoterpene            |
| $\alpha$ -Fenchene                | 0.04  | Monoterpene            |
| Unknown                           | 0.02  | Monoterpene            |
| Sabinene                          | 3.89  | Monoterpene            |
| $\beta$ -Pinene                   | 3.10  | Monoterpene            |
| 6-Methyl-5-hepten-2-one           | 0.03  | Aliphatic ketone       |
| Myrcene                           | 2.53  | Monoterpene            |
| 6-Methyl-5-hepten-2-ol            | 0.04  | Aliphatic alcohol      |
| 2-Carene                          | 0.04  | Monoterpene            |
| Pseudolimonene                    | 0.02  | Monoterpene            |
| $\alpha$ -Phellandrene            | 0.89  | Monoterpene            |
| $\Delta^3$ -Carene                | 8.38  | Monoterpene            |
| $\alpha$ -Terpinene               | 1.42  | Monoterpene            |
| <i>para</i> -Cymene               | 5.84  | Monoterpene            |
| Limonene                          | 19.08 | Monoterpene            |
| 1,8-Cineole                       | 30.73 | Monoterpenic ether     |
| (Z)- $\beta$ -Ocimene             | 0.04  | Monoterpene            |
| (E)- $\beta$ -Ocimene             | 0.22  | Monoterpene            |
| $\gamma$ -Terpinene               | 2.09  | Monoterpene            |
| <i>cis</i> -Sabinene hydrate      | 0.02  | Monoterpenic alcohol   |
| <i>cis</i> -Linalool oxide (fur.) | 0.01  | Monoterpenic alcohol   |
| Fenchone                          | 0.03  | Monoterpenic ketone    |
| <i>para</i> -Cymenene             | 0.01  | Monoterpene            |
| Terpinolene                       | 0.02  | Monoterpene            |
| Linalool                          | 0.02  | Monoterpenic alcohol   |
| Unknown                           | 0.05  | Monoterpenic alcohol   |
| endo-Fenchol                      | 0.02  | Monoterpenic alcohol   |
| Camphor                           | 9.05  | Monoterpenic ketone    |
| Unknown                           | 0.02  | Unknown                |
| Unknown                           | 0.05  | Oxygenated monoterpene |
| Unknown                           | 0.04  | Unknown                |
| Cryptone                          | 0.03  | Normonoterpenic ketone |
| $\alpha$ -Terpineol               | 4.55  | Monoterpenic alcohol   |
| <i>trans</i> -Carveol             | 0.02  | Monoterpenic alcohol   |

|                           |              |                        |
|---------------------------|--------------|------------------------|
| Unknown                   | 0.02         | Unknown                |
| Unknown                   | 0.03         | Oxygenated monoterpene |
| Carvone                   | 0.01         | Monoterpenic ketone    |
| Unknown                   | 0.03         | Unknown                |
| Geraniol                  | 0.03         | Monoterpenic alcohol   |
| Safrole                   | 0.02         | Phenylpropanoid        |
| Eugenol                   | 0.02         | Phenylpropanoid        |
| $\alpha$ -Copaene         | 0.01         | Sesquiterpene          |
| Unknown                   | 0.01         | Unknown                |
| <i>meta</i> -Camphorene   | 0.02         | Diterpene              |
| <i>para</i> -Camphorene   | 0.01         | Diterpene              |
| <b>Consolidated total</b> | <b>99.55</b> |                        |

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

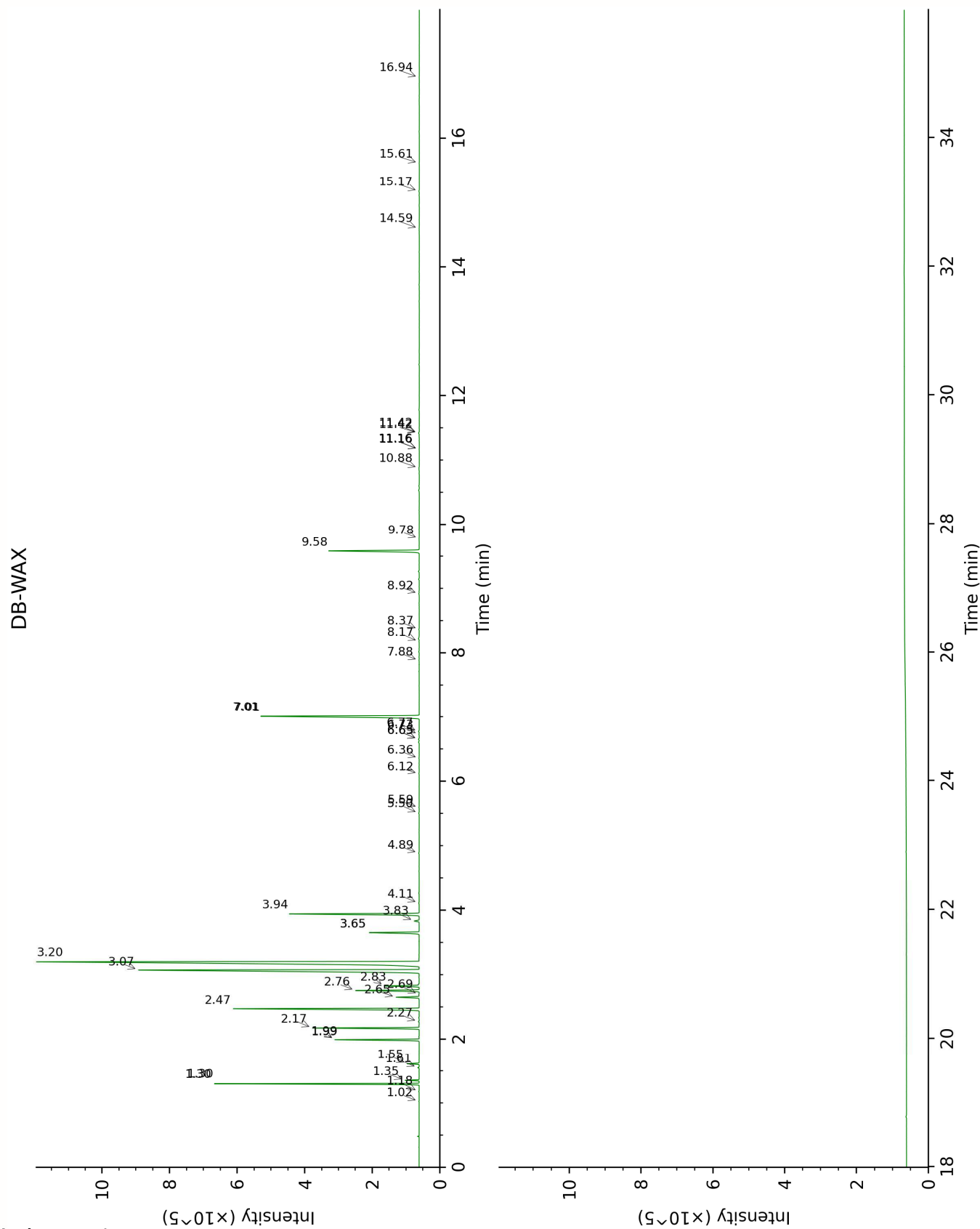
Note: no correction factor was applied

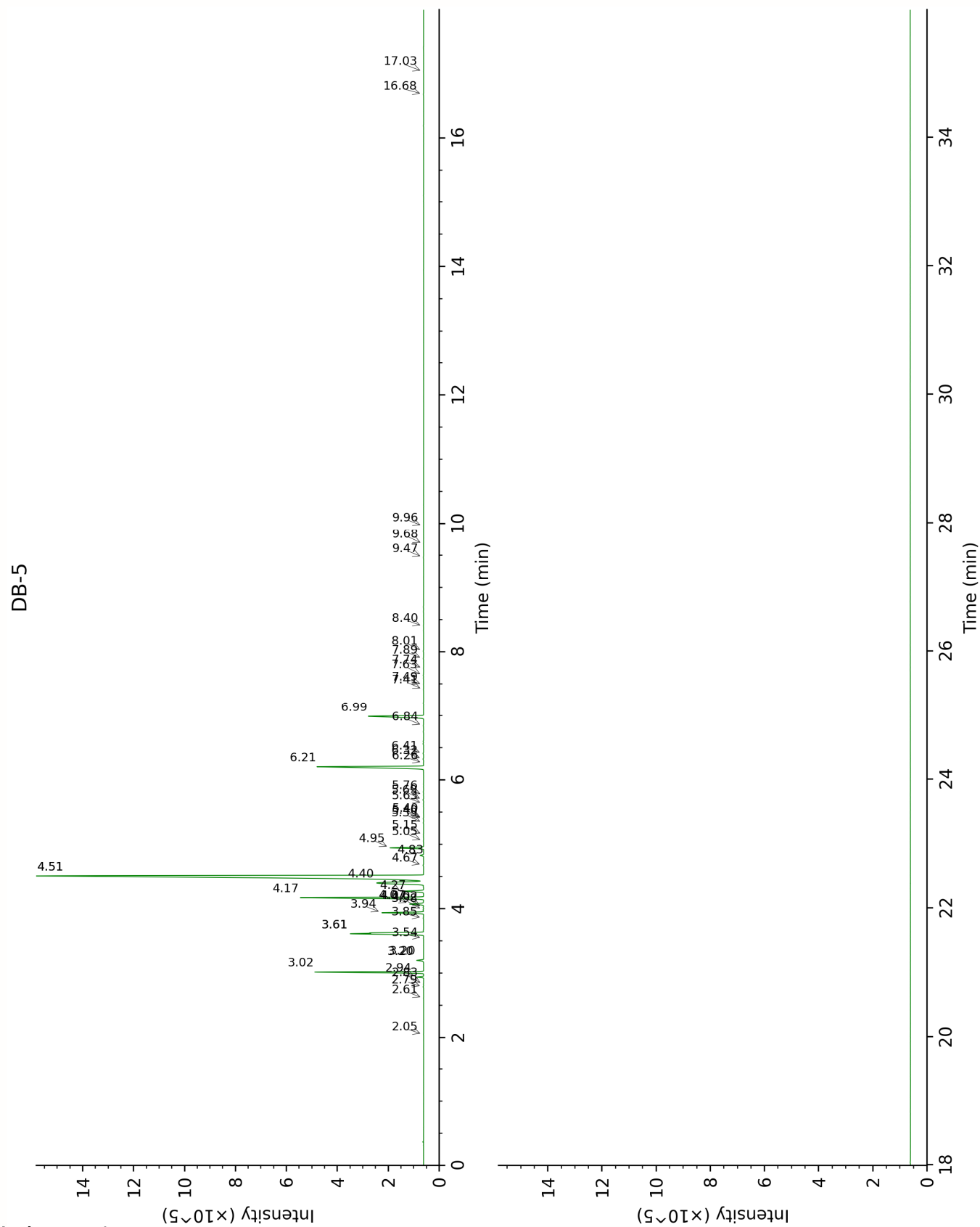
**About "consolidated" data:** The table above presents the breakdown of the sample volatile constituents after applying an algorithm to collapse data acquired from the multi-columns system of PhytoChemia into a single set of consolidated contents. In case of discrepancies between columns, the algorithm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





## FULL ANALYSIS DATA

| (3Z)-Hexenol                                                                                 | Column DB-WAX |        |        | Column DB-5 |        |         |
|----------------------------------------------------------------------------------------------|---------------|--------|--------|-------------|--------|---------|
|                                                                                              | 5.59          | 1342.4 | 0.01   | 2.05        | 856.6  | 0.01    |
| Bornylene                                                                                    | 1.02          | 946.1  | 0.01   | 2.61        | 904.4  | 0.01    |
| Hashishene                                                                                   | 1.30*         | 990.0  | [6.21] | 2.79        | 916.3  | 0.03    |
| Tricyclene                                                                                   | 1.18          | 970.5  | 0.01   | 2.83        | 919.0  | 0.01    |
| $\alpha$ -Thujene                                                                            | 1.35          | 998.6  | 0.37   | 2.94        | 926.5  | 0.37    |
| $\alpha$ -Pinene                                                                             | 1.30*         | 990.0  | [6.21] | 3.02        | 931.7  | 6.22    |
| Camphene                                                                                     | 1.61          | 1027.2 | 0.38   | 3.20*       | 943.9  | [0.43]  |
| $\alpha$ -Fenchene                                                                           | 1.55          | 1021.1 | 0.04   | 3.20*       | 943.9  | [0.43]  |
| Unknown CIAU I<br>[m/z 93, 91 (60),<br>121 (55), 136<br>(42), 79 (40)]                       | 1.99*         | 1064.6 | [3.04] | 3.54        | 967.0  | 0.02    |
| Sabinene                                                                                     | 2.17          | 1082.6 | 3.89   | 3.61*       | 971.7  | [6.99]  |
| $\beta$ -Pinene                                                                              | 1.99*         | 1064.6 | [3.04] | 3.61*       | 971.7  | [6.99]  |
| 6-Methyl-5-hepten-2-one                                                                      | 4.89          | 1295.0 | 0.02   | 3.86        | 988.0  | 0.03    |
| Myrcene                                                                                      | 2.76          | 1133.0 | 2.52   | 3.94        | 993.7  | 2.53    |
| 6-Methyl-5-hepten-2-ol                                                                       | 6.77          | 1429.4 | 0.03   | 3.98        | 996.6  | 0.04    |
| 2-Carene                                                                                     | 2.27          | 1092.3 | 0.03   | 4.02        | 999.2  | 0.04    |
| Pseudolimonene                                                                               | 2.69          | 1128.2 | 0.02   | 4.07*       | 1002.8 | [0.93]  |
| $\alpha$ -Phellandrene                                                                       | 2.65          | 1124.9 | 0.89   | 4.07*       | 1002.8 | [0.93]  |
| $\Delta^3$ -Carene                                                                           | 2.47          | 1111.0 | 8.32   | 4.17        | 1009.2 | 8.38    |
| $\alpha$ -Terpinene                                                                          | 2.83          | 1138.5 | 1.38   | 4.27        | 1015.5 | 1.42    |
| <i>para</i> -Cymene                                                                          | 3.94          | 1225.3 | 5.85   | 4.40        | 1023.6 | 5.84    |
| Limonene                                                                                     | 3.07          | 1157.9 | 19.08  | 4.51*       | 1030.6 | [49.73] |
| 1,8-Cineole                                                                                  | 3.20          | 1168.0 | 30.73  | 4.51*       | 1030.6 | [49.73] |
| (Z)- $\beta$ -Ocimene                                                                        | 3.65*         | 1203.6 | [2.11] | 4.67        | 1041.1 | 0.04    |
| (E)- $\beta$ -Ocimene                                                                        | 3.83          | 1217.1 | 0.22   | 4.83        | 1050.8 | 0.22    |
| $\gamma$ -Terpinene                                                                          | 3.65*         | 1203.6 | [2.11] | 4.95        | 1058.4 | 2.09    |
| <i>cis</i> -Sabinene hydrate                                                                 | 6.73          | 1425.9 | 0.01   | 5.05        | 1064.9 | 0.02    |
| <i>cis</i> -Linalool oxide (fur.)                                                            | 6.36          | 1398.1 | 0.01   | 5.15        | 1071.4 | 0.01    |
| Fenchone                                                                                     | 5.50          | 1335.9 | 0.02   | 5.33        | 1083.1 | 0.03    |
| <i>para</i> -Cymenene                                                                        | 6.12          | 1380.7 | 0.01   | 5.40*       | 1087.2 | [0.03]  |
| Terpinolene                                                                                  | 4.11          | 1237.6 | 0.02   | 5.40*       | 1087.2 | [0.03]  |
| Linalool                                                                                     | 7.88          | 1513.4 | 0.01   | 5.63        | 1102.2 | 0.02    |
| Unknown ORMA<br>I [m/z 119, 109<br>(94), 43 (61), 95<br>(56), 91 (48), 77<br>(32), 152 (32), | 8.37          | 1551.4 | 0.02   | 5.69        | 1105.8 | 0.05    |

|                                                                                       |        |        |        |      |        |      |
|---------------------------------------------------------------------------------------|--------|--------|--------|------|--------|------|
| 137 (31), 134 (24)]                                                                   |        |        |        |      |        |      |
| endo-Fenchol                                                                          | 8.17   | 1536.3 | 0.01   | 5.76 | 1110.6 | 0.02 |
| Camphor                                                                               | 7.01*  | 1447.1 | [9.12] | 6.20 | 1139.3 | 9.05 |
| Unknown MEAL II [m/z 109, 124 (45), 119 (41), 43 (35), 91 (28), 95 (25)...]           | 6.65*  | 1420.2 | [0.03] | 6.26 | 1143.0 | 0.02 |
| Unknown CICA III [m/z 109, 41 (49), 124 (41), 43 (31), 95 (28), 84 (22)... 152 (7)]   | 6.65*  | 1420.2 | [0.03] | 6.32 | 1147.1 | 0.05 |
| Unknown CICA VIII [m/z 71, 85 (48), 43 (42), 57 (38), 58 (37), 41 (21), ... 155 (12)] |        |        |        | 6.41 | 1152.8 | 0.04 |
| Cryptone                                                                              | 8.92   | 1594.7 | 0.02   | 6.84 | 1180.9 | 0.03 |
| $\alpha$ -Terpineol                                                                   | 9.58   | 1648.7 | 4.55   | 6.99 | 1190.5 | 4.55 |
| trans-Carveol                                                                         | 11.16* | 1781.9 | [0.01] | 7.41 | 1218.7 | 0.02 |
| Unknown CICA IV [m/z 43, 97 (72), 41 (44), 71 (27), 55 (26), 82 (25)...]              |        |        |        | 7.49 | 1223.9 | 0.02 |
| Unknown CIAU II [m/z 137, 152 (28), 43 (25), 91 (24), 109 (23), 119 (19)]             | 11.16* | 1781.9 | [0.01] | 7.63 | 1233.7 | 0.03 |
| Carvone                                                                               | 9.78   | 1664.6 | 0.01   | 7.74 | 1241.2 | 0.01 |
| Unknown CALU IV [m/z 43, 97 (69), 107 (46), 41 (28), 55 (21), 109 (20)...]            | 10.88  | 1757.3 | 0.02   | 7.89 | 1251.7 | 0.03 |
| Geraniol                                                                              | 11.42* | 1803.7 | [0.05] | 8.01 | 1259.7 | 0.03 |
| Safrole                                                                               | 11.42* | 1803.7 | [0.05] | 8.40 | 1286.1 | 0.02 |
| Eugenol                                                                               | 14.59  | 2098.6 | 0.01   | 9.47 | 1358.0 | 0.02 |
| $\alpha$ -Copaene                                                                     | 7.01*  | 1447.1 | [9.12] | 9.68 | 1372.9 | 0.01 |
| Unknown CALU VIII [m/z 71, 100 (92), 111 (79), 69                                     | 16.94  | 2341.2 | 0.02   | 9.96 | 1393.1 | 0.01 |

|                             |        |        |      |        |        |      |
|-----------------------------|--------|--------|------|--------|--------|------|
| (46), 109 (45)...           |        |        |      |        |        |      |
| <i>meta</i> -<br>Camphorene | 15.17  | 2156.6 | 0.03 | 16.68  | 1952.9 | 0.02 |
| <i>para</i> -<br>Camphorene | 15.61  | 2201.4 | 0.01 | 17.03  | 1986.3 | 0.01 |
| Total reported              | 99.14% |        |      | 99.49% |        |      |
|                             |        |        |      |        |        |      |

\*: 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