

## 1 #Identification de l'échantillon / Sample identification

|                                                                   |                                                      |
|-------------------------------------------------------------------|------------------------------------------------------|
| <b>Désignation commerciale</b><br><i>Trade name</i>               | HE ORANGE BIO<br><i>Organic Sweet Orange Oil</i>     |
| <b>Code article / Article code</b>                                | [MP10062]                                            |
| <b>Type d'extrait</b><br><i>Type of Extract</i>                   | Huile Essentielle<br><i>Essential Oil</i>            |
| <b>Nom commun</b><br><i>Common name</i>                           | Orange<br><i>Sweet Orange</i>                        |
| <b>Nom botanique</b><br><i>Botanical name</i>                     | <i>Citrus sinensis</i>                               |
| <b>Qualité / Quality</b>                                          | Biologique / <i>Organic</i>                          |
| <b>Partie de la plante</b><br><i>Part of the plant</i>            | Expression du zeste<br><i>Expression of the zest</i> |
| <b>Origine de la plante</b><br><i>Origin of the plant</i>         | Italie                                               |
| <b>Producteur / Fournisseur</b><br><i>Manufacturer / Supplier</i> | Laboratoire ALTHO                                    |
| <b>N° de Lot / Batch number</b>                                   | OBLB-25265                                           |
| <b>Informations / Information</b>                                 | -                                                    |



## 2 Analyse par Chromatographie Phase Gazeuse / GC-MS Analysis

**Méthodologie :** selon la norme ISO 11024

**Préparation de l'échantillon :** dilution à 10% dans l'hexane

**Appareillage :** - GC/MS Agilent 7890/5977 - 6890/5973  
- GC/FID Agilent 6890

**Colonne :** VF-Wax (polaire) - HP5-MS (apolaire)

**Méthode d'acquisition :** 2S-RTL+20\_R - 6S-RTL\_V

**Identification des pics :** - bibliothèque MS interne "ESSENCE.L"  
- bibliothèque MS commerciale "NIST.L"  
- temps de rétention (base de données interne)

**Seuil d'intégration :** 0.01%

**Seuil d'investigation :** 0.01%

| - HE ORANGE DOUCE BIO - REF. OBLB-25265 - |          |                               |            |              |                    |                |
|-------------------------------------------|----------|-------------------------------|------------|--------------|--------------------|----------------|
| Pics                                      | TR (min) | Constituants                  | CAS        | %            | Norme (%)          | Allergènes (%) |
| 1                                         | 8.23     | <b>alpha-PINENE</b>           | 80-56-8    | <b>0.57</b>  | <b>0.40 - 0.80</b> | 0.57           |
| 2                                         | 10.89    | <b>beta-PINENE</b>            | 127-91-3   | <b>0.02</b>  | <b>0.02 - 0.15</b> | 0.02           |
| 3                                         | 11.37    | <b>SABINENE</b>               | 3387-41-5  | <b>0.31</b>  | <b>0.20 - 1.0</b>  |                |
| 4                                         | 12.55    | delta3-CARENE                 | 13466-78-9 | 0.09         |                    |                |
| 5                                         | 13.14    | <b>beta-MYRCENE</b>           | 123-35-3   | <b>1.84</b>  | <b>1.5 - 3.5</b>   |                |
| 6                                         | 13.27    | alpha-PHELLANDRENE            | 99-83-2    | 0.02         |                    |                |
| 7                                         | 15.48    | <b>LIMONENE</b>               | 138-86-3   | <b>94.97</b> | <b>93.0 - 96.0</b> | 94.97          |
| 8                                         | 15.63    | beta-PHELLANDRENE             | 555-10-2   | 0.25         |                    |                |
| 9                                         |          | 1,8-CINEOLE                   | 470-82-6   |              |                    |                |
| 10                                        | 17.64    | trans-beta-OCIMENE            | 3779-61-1  | 0.02         |                    |                |
| 11                                        | 18.63    | p-CYMENE                      | 99-87-6    | 0.01         |                    |                |
| 12                                        | 19.39    | TERPINOLENE                   | 586-62-9   | 0.01         |                    | 0.01           |
| 13                                        | 19.75    | <b>OCTANAL</b>                | 124-13-0   | <b>0.16</b>  | <b>0.10 - 0.60</b> |                |
| 14                                        | 26.20    | <b>NONANAL</b>                | 124-19-6   | <b>0.03</b>  | <b>0.01 - 0.10</b> |                |
| 15                                        | 29.31    | cis-1,2-EPOXYDE DE LIMONENE   | 13837-75-7 | 0.12         |                    |                |
| 16                                        | 30.12    | trans-1,2-EPOXYDE DE LIMONENE | 4959-35-7  | 0.07         |                    |                |
| 17                                        | 31.56    | CITRONELLAL                   | 106-23-0   | 0.04         |                    |                |
| 18                                        | 32.69    | alpha-COPAENE                 | 3856-25-5  | 0.02         |                    |                |
| 19                                        | 32.94    | <b>DECANAL</b>                | 112-31-2   | <b>0.17</b>  | <b>0.10 - 0.70</b> |                |
| 20                                        | 35.57    | beta1-CUBEBENE                |            | 0.02         |                    |                |
| 21                                        | 35.82    | <b>LINALOL</b>                | 78-70-6    | <b>0.37</b>  | <b>0.15 - 0.70</b> | 0.37           |
| 22                                        | 35.97    | cis-8,9-EPOXYDE DE LIMONENE   |            | 0.02         |                    |                |
| 23                                        | 36.42    | 1-OCTANOL                     | 111-87-5   | 0.06         |                    |                |
| 24                                        |          | ACETATE DE LINALYLE           | 115-95-7   |              |                    | 0.06           |
| 25                                        | 38.70    | beta-ELEMENE                  | 33880-83-0 | 0.01         |                    |                |
| 26                                        | 38.84    | beta-CUBEBENE                 | 13744-15-5 | 0.03         |                    |                |
| 27                                        | 39.09    | beta-CARYOPHYLLENE            | 87-44-5    | 0.02         |                    | 0.02           |
| 28                                        | 40.68    | cis-p-MENTHA-2,8-DIEN-1-OL    | 22771-44-4 | 0.04         |                    |                |
| 29                                        | 43.23    | trans-p-MENTHA-2,8-DIEN-1-OL  | 7212-40-0  | 0.05         |                    |                |
| 30                                        | 43.45    | E-beta-FARNESENE              | 18794-84-8 | 0.01         |                    |                |
| 31                                        | 44.04    | <b>NERAL</b>                  | 106-26-3   | <b>0.03</b>  | <b>0.03 - 0.10</b> | 0.03           |
| 32                                        | 44.24    | LAVANDULAL                    |            | 0.01         |                    |                |
| 33                                        | 44.91    | alpha-TERPINEOL               | 98-55-5    | 0.04         |                    | 0.04           |
| 34                                        | 45.89    | GERMACRENE D                  | 23986-74-5 | 0.01         |                    |                |
| 35                                        | 46.10    | DODECANAL                     | 112-54-9   | 0.03         |                    |                |
| 36                                        | 46.41    | <b>VALENCENE</b>              | 4630-07-3  | <b>0.03</b>  | <b>0.01 - 0.40</b> |                |
| 37                                        | 46.79    | ACETATE DE NERYLE             | 141-12-8   | 0.01         |                    |                |
| 38                                        | 47.00    | CARVONE                       | 99-49-0    | 0.07         |                    | 0.07           |
| 39                                        | 47.03    | <b>GERANIAL</b>               | 141-27-5   | <b>0.07</b>  | <b>0.05 - 0.20</b> | 0.07           |
| 40                                        | 48.10    | trans-ISOPERITENOL            | 74410-00-7 | 0.02         |                    |                |
| 41                                        | 48.34    | E,E-alpha-FARNESENE           | 502-61-4   | 0.01         |                    |                |
| 42                                        | 48.69    | delta-CADINENE                | 483-76-1   | 0.03         |                    |                |
| 43                                        | 48.92    | 1-DECANOL                     | 112-30-1   | 0.02         |                    |                |

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|-------------------------------------------|----------|-------------------------|------------|---------------|--------------------|----------------|
| Pics                                      | TR (min) | Constituants            | CAS        | %             | Norme (%)          | Allergènes (%) |
| 44                                        | 49.00    | CITRONELLOL             | 106-22-9   | 0.02          |                    | 0.02           |
| 45                                        | 49.98    | PERILLALDEHYDE          | 2111-75-3  | 0.03          |                    |                |
| 46                                        | 52.79    | trans-CARVEOL           | 1197-07-5  | 0.05          |                    |                |
| 47                                        | 54.48    | cis-CARVEOL             | 1197-06-4  | 0.04          |                    |                |
| 48                                        | 61.48    | COMPOSÉ TERPENIQUE      |            | 0.02          |                    |                |
| 49                                        | 65.03    | ACIDE CAPRYLIQUE        | 124-07-2   | 0.02          |                    |                |
| 50                                        | 66.21    | ELEMOL                  | 639-99-6   | 0.01          |                    |                |
| 51                                        | 73.64    | <b>beta-SINENSAL</b>    | 60066-88-8 | <b>0.04</b>   | <b>0.01 - 0.06</b> |                |
| 52                                        | 75.17    | trans-LIMONENE-1,2-DIOL | 1946-00-5  | 0.02          |                    |                |
| 53                                        | 75.59    | ACIDE CAPRIQUE          | 334-48-5   | 0.02          |                    |                |
| 54                                        | 78.40    | alpha-SINENSAL          | 17909-77-2 | 0.02          |                    |                |
| 55                                        | 96.69    | ACIDE PALMITIQUE        | 57-10-3    | 0.03          |                    |                |
|                                           |          | <b>TOTAL</b>            |            | <b>100.00</b> |                    | <b>96.24</b>   |

PROFIL CHROMATOGRAPHIQUE

