



## Certificate of Analysis

### Marjoram Leaf CO2-se extract

Art. No. CO2-MARJ-05 | CO2-MARJ-10

batch no. : 512201, lab no. 33325  
 production : February 2022 - Retest: February 2027  
 raw material : *Origanum majorana* - Leafs, dried  
 country of origin of raw material : Germany  
 country of origin of product : Germany  
 D/E - ratio : 40 - 83 kg raw material yield 1 kg product  
 Product contains : no carriers and excipients

#### Sensory Check

Page 1 of 2

| feature     | reference                   | result |
|-------------|-----------------------------|--------|
| Appearance: | Yellow to pale brown liquid | meets  |
| Odour:      | Characteristic              | meets  |

#### Analytical Check

| feature                               | method                              | limits           | value              | unit       |
|---------------------------------------|-------------------------------------|------------------|--------------------|------------|
| Content of essential                  | 21.006.01, Distillation gravimetric | 60-80            | 75,3,0             | % (g/100g) |
| Composition of the volatile compounds | GCMS, 100% method                   |                  |                    |            |
| Sabinene                              | GCMS, 21.139.03                     | < 10             | 3,8                | %          |
| Sabinene hydrate cis + trans          | GCMS, 21.139.03                     | 30-60            | 32,5<br>(27,6+4,9) | %          |
| Terpinene-4-ol                        | GCMS, 21.139.03                     | < 25             | 8,2                | %          |
| Sabinene hydrate Acetate cis + trans  | GCMS, 21.139.03                     | 10-30            | 30,0<br>(29,7+0,3) | %          |
| Refractive index (20°C)               | 21.080.03, Abbe Refractometer       | 1,464-1,474      | 1,4663             |            |
| Density (20°C)                        | 21.024.03, Pycnometer               | 0,900-0,930      | 0,9222             | g/m3       |
| Monitoring of substance*:             |                                     |                  |                    |            |
| Estragole (= Methyl chavicol)         | GCMS                                | n.s.             | n.d. (< 1)         | ppm        |
| Camphor                               | GCMS                                | n.s.             | n.d. (< 0,01)      | %          |
| Methyleugenol in extract              | GCMS, quantitative                  | n.s.             | 27                 | ppm        |
| Ochratoxin A                          | 21.197.02, HPLC                     | EC no. 1881/2006 | n.d. (0,01)        | ppb        |

n.s. = not specified n.d. = not detected

\* Substances that are limited or for which monitoring must be available as specified in the "Arrêté du Juin 2014" to define the plants that may be used in food supplements

The product meets the current version of the analytical (004.001\_08\_AS) and of the general (004.001\_09\_S) specification.

Date of analysis: 2022.02.09

This computerized CoA has digital signature validated by MANUFACTURER QC.

The data in this report of analysis have been determined carefully and to the best of our knowledge. Depending on transport and storage conditions the indicated data can be subject to certain changes which are outside of our influence. Hence the report has not the meaning of a guaranty in the legal sense and does not dispense the customer from making his own quality control before using the product. For further product-relevant substances, see IFRA list and cosmetic allergen list.