



## Certificate of Analysis

### Marjoram Leaf CO2-se extract

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

batch no.	: 581223, lab no. 35424
production	: November 2018 - Retest: March 2023 - Expiration date: November 2024
raw material	: <i>Origanum majorana</i> - Leafs, dried
country of origin of raw material	: France
country of origin of product	: Germany
D/E - ratio	: 20 - 33 kg raw material yield 1 kg product
Product contains	: no carriers and excipients

#### Sensory Check

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feature	reference	result
Appearance:	Green-brown color, liquid at 40°C	meets
Odour:	Fine camomile-like fragrance	meets

#### Analytical Check

feature	method	limits	value	unit
Content of essential	21.006.01, Distillation gravimetric	7-17	11,7	% (g/100g)
Relative composition of the essential oil:	GC, 100% method			
beta-Farnesene	21.093.03, GC	n.s.	29,9	%
alpha-Farnesene	21.093.03, GC	n.s.	1,1	%
Spathulenol	21.093.03, GC	n.s.	1,2	%
Bisabolol oxides A + B	21.093.03, GC	5-20	9,3,0 (6,0+3,3)	%
Bisabolone oxide	21.093.03, GC	n.s.	0,52	%
alpha-Bisabolol	21.093.03, GC	20-45	36,7	%
Chamazulene	21.093.03, GC	n.s.	3,5	%
cis-En-Yn Dicycloether	21.093.03, GC	n.s.	6,7	%
trans-EnYn Dicycloether	21.093.03, GC	n.s.	0,32	%
alpha-Bisabolol in extract	21.219.01, HLPC	n.s.	2,8	%
Bisabolol oxides A + B in extract	21.219.01, HLPC	n.s.	1.1	%
Content of Matricin / Chamazulene (analysed as Chamazulene) in extract	21.023.02, Spectrometry	0,5-2.5	0,53	%
Content of Antheotulide in extract	21.153.01, HLPC	< 0,05	meets	%

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

Furthermore the extract contains a small amount of Apigenine and Apigenine-7-glycoside (<0,1%)

The product meets the current version of the analytical (019.002\_07\_AS) and of the general (019.002\_10\_S) specification.

Date of analysis: 2023.03.17

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. For further product-relevant substances, see IFRA list and cosmetic allergen list.