



Certificate of Analysis

Marigold Flower CO2-to extract (organic)



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

batch no. : 722404, lab no. 34816
 production : November 2022 - Retest: November 2027
 raw material : *Calendula officinalis* - Flowers, dried, from organic farming
 country of origin of raw material : Germany, Egypt
 country of origin of product : Germany
 D/E - ratio : 13 - 20 kg raw material yield 1 kg product.
 Product contains : no carriers and excipients

Sensory Check

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feature	reference	result
Appearance:	Dark red to brown color, waxy solid at room temperature; liquid at 40°C	meets
Fragrance/Taste:	characteristic hay-like fragrance	meets

Analytical Check

feature	method	limits	value	unit
Content of essential oil	21.006.01, Distillation gravimetric	n.s.	1,6	% (g/100g)
Sum of Carotenoides (calc. as β -Carotene)	21.008.05, Spectrometer	0,7-1,4	0,83	%
Content of Faradiol ester	21.041.05, HPLC	17-25	22,2	%
Sum of Sterols (calc. as Sitosterol)	21.207.01, GCMS	n.s.	2,5	%
Identified Triterpene alcohols: Taraxasterols and Amyrins (calc. as Sitosterol)	21.207.01, GCMS	n.s.	8,7	%
Pesticides	external analysis	EC No. 396/2005	meets	
Sum of Benzo(a)pyrene	external analysis	EC No. 1881/2006	13,9	ppb
Benz(a)anthracene				
Benzo(b)fluoranthene and Chrysene				
TEQ (WHO) for WHO-PCB on the whole product	external analyses	EC no. 1881/2006	meets (0,139)	pg/g
PCB's (Sum of PCB 28, 52, 101, 138, 153, 180)	external analysis	EC No. 1881/2006	meets (1,53)	ng/g

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

The product meets the current version of the analytical (018.002_06_AS) and of the general (018.002_09_S) specification.

Date of analysis: 2022.11.25

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.