

Certificate of Analysis

Ginger C02

Batch #DE-59457

production: February 2023 retest: February 2028
raw material: *Zingiber officinale Roscoe* - Rhizome, dried from organic farming

country of origin of raw material: Indonesia
country of origin of product: Germany
D/E - ratio: 43 - 56 kg raw material yield 1 kg product.

Product contains: no carriers and excipients

Sensory Check

feature	reference	result
Appearance:	clear, yellow liquid	meets
Odour:	characteristic verbena citrus-like odour	meets

Analytical Check

feature	method	limits	value	unit
Content of essential oil	21.006.01, Distillation, gravimetric	82 - 95	89,0	% (g/ 100)
Composition of the volatile compounds:	GCMS, 100 % Method			
alpha Pinene	GCMS, 21.225.01	n.s.	1,8	%
Camphene	GCMS, 21.225.01	n.s.	7,2	%
beta Myrcene	GCMS, 21.225.01	n.s.	0,81	%
Limonene	GCMS, 21.225.01	n.s.	1,2	%
beta Phellandrene	GCMS, 21.225.01	n.s.	0,89	%
1,8 Cineol	GCMS, 21.225.01	n.s.	2,9	%
Citronellol	GCMS, 21.225.01	n.s.	0,15	%
Linalool	GCMS, 21.225.01	n.s.	0,70	%
Neral/Geraniol	GCMS, 21.225.01	< 9,0	5,4 (1,7 / 3,7)	%
Geraniol	GCMS, 21.225.01	n.s.	0,76	%
ar-Curcumene	GCMS, 21.225.01	n.s.	20,9	%
alpha Zingiberene	GCMS, 21.225.01	> 15,0	16,4	%
alpha Farnesene	GCMS, 21.225.01	n.s.	4,5	%
beta Bisabolene	GCMS, 21.225.01	n.s.	8,1	%
Sesquiphellandrene	GCMS, 21.225.01	n.s.	11,4	%
Hexanal	GCMS, 21.225.01	n.s.	n.d.	%
Sum of Gingerols	21.027.05, HPLC	n.s.	0,96	%
Sum of Shogaols	21.027.05, HPLC	< 1,5	0,44	%
Sum of pungent compounds	21.027.05, HPLC	< 5	1,4	%

n.s. = not specified

n.d. = not detected

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feature	method	limits	value	unit
Refractive index (20°C)	21.271.01, Digital Refractometer	1,4880 - 1,4950	1,4913	
Density (20°C)	21.024.03, Pycnometer	0,875 - 0,895	0,8900	g/cm ³
Aflatoxine B1	21.193.03, HPLC	EC no. 1881/2006	meets	ppb
Total Aflatoxines B1,B2,G1,G2	21.193.03, HPLC	EC no. 1881/2006	meets	ppb
Ochratoxin A	21.197.02, HPLC	EC no. 1881/2006	meets	ppb
Monitoring of substances*: Methyleugenol	GCMS	n.s. n.d. (< 0,001)		%

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

*Substances to be monitored according to "Arrêté du Juin 2014" laying down the list of plants, authorized in food supplements

The product meets the current version of the analytical (014.027_04_AS) and of the general (014.027_06_S) specification.

date of analysis: 2023.02.15

This computerized CoA has digital signature validated by Nature's Gift



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.