

Certificate of Analysis

Butter CO₂-se extract, type no. 096.004

Dist. Type

batch no. 562009, lab no. 40912

production: January 2026

retest: January 2031

raw material:

Distillate of anhydrous milk fat (D/E ~1000/1 ref. to AMF)

country of origin of raw material: Europe

country of origin of product: Germany

D/E - ratio: 4,5 - 5,6 kg raw material yield 1 kg product.

Product contains: additionally 0,02 % Rosemary Antioxidant Extract

Sensory Check

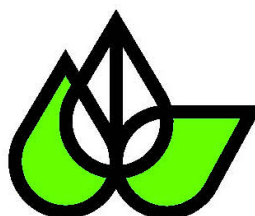
feature	reference	result
Appearance:	At room temperature turbid oil, after slight warming clear yellow oil	meets
Odour:	characteristic butter flavour	meets

Analytical Check

feature	method	limits	value unit
Relative fatty acid composition:			
Butyric Acid C4:0	21.156.03, GCFID	< 6	1,2 %
Caproic Acid C6:0	21.156.03, GCFID	n.s.	1,5 %
Caprylic Acid C8:0	21.156.03, GCFID	< 6	2,3 %
Capric Acid C10:0	21.156.03, GCFID	< 20	8,8 %
Lauric Acid C12:0	21.156.03, GCFID	n.s.	10,7 %
Myristic Acid C14:0	21.156.03, GCFID	10 - 25	18,2 %
Myristoleic Acid C14:1	21.156.03, GCFID	n.s.	2,0 %
Palmitic Acid C16:0	21.156.03, GCFID	15 - 35	29,4 %
Palmitoleic Acid C16:1 w7	21.156.03, GCFID	n.s.	2,2 %
Stearic Acid C18:0	21.156.03, GCFID	n.s.	5,0 %
Oleic Acid C18:1 w9	21.156.03, GCFID	n.s.	16,4 %
Linoleic Acid C18:2 w6	21.156.03, GCFID	n.s.	1,4 %
Fat numbers:			
Peroxide Value	21.015.03, DGF, Wheeler	< 5	< 1 meq O2/kg
Acid value	21.016.03, DGF	n.s.	115 mg KOH/g
Saponification value	21.017.02, DGF	n.s.	246 mg KOH/g
Ester value	= SV - AV	n.s.	131 mg KOH/g
2-Nonanone	21.229.02, GC	n.s.	0,011 %
2-Undecanone	21.229.02, GC	n.s.	0,091 %
2-Tridecanone	21.229.02, GC	n.s.	0,64 %
2-Tetradecanone	21.229.02, GC	n.s.	0,038 %
2-Pentadecanone	21.229.02, GC	n.s.	2,8 %
Total 2-Alkanones in extract	21.229.02, GC	n.s.	3,6 %

n.s. = not specified

n.d. = not detected



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feature	method	limits	value unit
delta-Decalactone	21.229.02, GC	n.s.	0,35 %
delta + gamma Dodecalactone	21.229.02, GC	n.s.	1,9 %
delta Tetradecalactone	21.229.02, GC	n.s.	1,8 %
delta + gamma Hexadecalactone	21.229.02, GC	n.s.	0,94 %
Total Lactones in extract	21.229.02, GC	n.s.	4,9 %
Total 2-Alkanones and Lactones in extract	21.229.02, GC	6,0 - 9,0	8,6 %
Content of water	Karl Fischer Titr.	n.s.	0,85 %
aw-value	LabSwift aw-value Measurement	< 0,7	0,641 (23,3°C)
Refractive index (20°C)	21.271.01, Digital Refractometer	1,45 - 1,47	1,4519
Density (20°C)	21.024.03, Pycnometer	0,915 - 0,935	0,9184 g/cm ³
TEQ (WHO) for PCDD/F + WHO-PCB on the whole product	external analysis	EC No. 2023/915	Monitoring*
TEQ (WHO) for PCDD/F	external analysis	EC No. 2023/915	Monitoring*
Sum of 6 PCB (28,52,101,138,152, 180)	external analysis	EC No. 2023/915	Monitoring*
Lactose	external analysis	< detection limit (0,01)	meets** g/100g
Milk protein (Casein)	external analysis	< detection limit (0,25)	meets** ppm
		n.s. = not specified	n.d. = not detected

Remark:

2-Alkanones, lactones and aldehydes are quantified as Methyl decanoate.

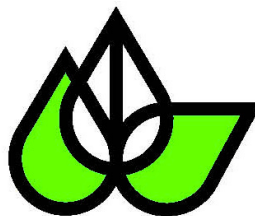
*Compliance with the maximum limits (EC No. 2023/915) is ensured by suitable monitoring.

**The extract is produced from distilled butter fat fraction. But there is no allergen risk, since milk proteins and lactose are insoluble in CO₂. ELISA Tests performed by accredited laboratories confirm that no allergenic proteins and no lactose are present in the extract.



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The product meets the current version of the analytical (096.004_04_AS) and of the general (096.004_05_S) specification.

date of analysis: 2026.01.30

This computerized CoA has digital signature validated by FLAVEX QC.

Anja Cawelius
Quality control
2026.01.30
09:31:00+01'00'

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.

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Page 3 of 3.

