

LIMBUA Deutschland GmbH

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### **Certificate of analysis 25318733 - 020**

Sample name : Bio Macadamia Nüsse / Organic Macadamia nuts

Marking of sample : Kennzeichnung/Lot: LB-MAC-B6072E

Customer No. : none

Packaging : Plastic package

Sample amount : 1 x 500 g

Shipping of sample : Courier Service

Sample entry : 19.11.2025

Entrance temperature : Room temperature

Sample taken : by sender

Begin/end of analysis : 19.11.2025 / 28.11.2025

The test results apply only to the test items described in the report. No responsibility is accepted for the validity of the results if any data or information provided by the customer may affect them. Data provided by the customer are clearly identified. The laboratory assumes no responsibility for the sampling unless it was carried out by samplers from a company within the GBA Group or on its behalf. In this case, the results apply to the sample as received. The test report may not be published or reproduced, in whole or in part, without the written consent of the issuing company. The general terms and conditions are available at <https://www.gba-group.com/en/general-terms-and-conditions/>.



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## Test Results

Microbiological Test	Result	Unit	Guidance value	Critical value
Total Plate Count	5,4 · 10 <sup>2</sup>	cfu/g	1,0 · 10 <sup>5</sup>	
Yeasts / moulds				
Moulds	4,0 · 10 <sup>2</sup> °°	cfu/g	1,0 · 10 <sup>4</sup>	
Yeasts	<10	cfu/g		
Enterobacteriaceae	<10	cfu/g	1,0 · 10 <sup>3</sup>	1,0 · 10 <sup>4</sup>
E. coli	<10	cfu/g	10	1,0 · 10 <sup>2</sup>
Salmonella	negative	/ 125 g	negative	negative

Guidance and Critical values for nuts (whole (peeled), crushed, or ground) according to the recommendation of the German Society for Hygiene and Microbiology (Deutsche Gesellschaft für Hygiene und Mikrobiologie - DGHM)

Chemical/Physical Test	Result	Unit	± MU	MU Source
Aflatoxins				
Aflatoxin B1	<0,50	µg/kg		VI
Aflatoxin B2	<0,50	µg/kg		VI
Aflatoxin G1	<0,50	µg/kg		VI
Aflatoxin G2	<0,50	µg/kg		VI
Aflatoxins, sum	not detectable	µg/kg		VI
Lead	<0,020	mg/kg		I
Cadmium	<0,010	mg/kg		I
aw-value	0,307		0,046	I
Moisture	1,7	g/100 g	0,26	VII

Pesticides and related substances	Result	Unit	± MU	MU Source
Pesticides, GC-MS/MS	not detectable			
Pesticides, LC-MS/MS	not detectable			

Scope of analyzed pesticides GC-MS/MS / LC-MS/MS: according to list of pesticides GÖST (05/08/2024)

### Assessment:

Results of microbiological analysis meet the recommendations of the German Association for Hygiene and Microbiology (Deutsche Gesellschaft für Hygiene und Mikrobiologie, DGHM) as far as guidance and critical values have been laid down for these parameters.

### Assessment:

Results of pesticide analysis meet the requirements of the Regulation (EC) 396/2005 on maximum residue levels of pesticides.

Results of pesticide analysis meet the orientation value (0,01 mg/kg) of the Association of Organic Processors,

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Wholesalers, and Retailers in Germany (Bundesverband Naturkost Naturwaren e.V. (BNN)).

Hameln, 28.11.2025

*This test report is done automatically and is valid without signature.*

i. A. K. Lütker

(Certified Food Chemist / Customer Service)

## Methods

Parameter	Method	DR
Total Plate Count	DIN EN ISO 4833-2: 2022-05 <sup>a</sup> <sub>0</sub>	m
Yeasts / moulds	BIOKAR Diagnostics, Symphony-Agar BM20208/BM19108: 2022-11 <sup>a</sup> ; validated according to EN ISO 16140-2 against EN ISO 21527-1/-2 2008-11 <sub>0</sub>	m
Enterobacteriaceae	Biomerieux, Rebecca-Agar AEB520020/AEB150022: 2020-09 <sup>a</sup> ; validated according to EN ISO 16140-2 against ISO 21528-2 2017-07 <sub>0</sub>	m
E. coli	Biomerieux, Rebecca-Agar AEB520020/AEB150022: 2020-09 <sup>a</sup> ; validated according to EN ISO 16140-2 against ISO 16649-2 2001-07 <sub>0</sub>	m
Salmonella	DIN EN ISO 6579-1: 2020-08 <sup>a</sup> <sub>0</sub>	m
Aflatoxins	§ 64 LFGB L 15.00-2, HPLC-FLD: 2014-02 <sup>a</sup> <sub>3</sub>	y
Aflatoxins, sum	calculated $\alpha$	
Lead	DIN EN 15763, ICP-MS: 2010-04 <sup>a</sup> <sub>5</sub>	y
Cadmium	DIN EN 15763, ICP-MS: 2010-04 <sup>a</sup> <sub>5</sub>	y
Pressure pulping	§ 64 LFGB L 00.00-19/1: 2015-06 <sup>a</sup> <sub>3</sub>	q
aw-value	HM-MA-M 11-001: 2019-08 <sup>a</sup> <sub>3</sub>	z
Moisture	§ 64 LFGB L 17.00-1: 1982-05, Cor. 2002-12 <sup>a</sup> <sub>3</sub>	z
Pesticides, GC-MS/MS	§ 64 LFGB L 00.00-115, mod.: 2018-10 <sup>a</sup> <sub>0</sub>	y
Pesticides, LC-MS/MS	§ 64 LFGB L 00.00-115, mod.: 2018-10 <sup>a</sup> <sub>0</sub>	y

The methods marked with <sup>a</sup> are accredited methods of the performing laboratory.

Testing laboratory: <sub>0</sub>GBA Hamburg <sub>3</sub>GBA Hameln  $\alpha$  automatically calculated from the system <sub>5</sub>GBA Pinneberg

MU-Source:

VI: According to Implementing Regulation (EU) 2023/2782 (Mycotoxins)

I: According to DIN ISO 11352 as expanded, combined measurement uncertainty with  $k = 2$  (95 %), sampling not included

VII: According to expert estimation

Decision rules:

y: In conformity assessment, measurement uncertainty is disregarded for measured values below the tolerance limit. For measured values exceeding the tolerance limit, measurement uncertainty is subtracted from the measured value. If no conformity assessment is performed, measurement uncertainty serves as informational data only.

q: The conformity assessment of qualitative measurement values (positive/negative, conforms/ does not conform) is performed without considering additional analytical measurands.

z: In conformity assessment, measurement uncertainty is disregarded and serves as informational data only.

m: The conformity assessment of microbiological measured values is performed without considering additional analytical measurands.

<sup>oo</sup> According to DIN EN ISO 7218, this result must be stated as an estimated number for statistical reasons.

The value given is not statistically significant.

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