

Delivery Receipt No: 03985

CERTIFICATE OF ANALYSIS

Container No. : UACU 553074-1

Product : ORGANIC HONEYDIPPED BANANA CHIPS

Consignee : NUTLAND B.V

Cut, Packing : WHOLES, 3300 CARTONS X 15 LBS.

Contract No. : P80447

Lots Taken From : PLEASE FIND BELOW

Destination : ROTTERDAM, NETHERLANDS

MICROBIOLOGICAL & PHYSICO-CHEMICAL TEST

Lot No.	Moisture (4.0%)	Size in diameter (13mm-40mm)	Thickness (3.8mm-4.2mm)	FFA (0.14%) (Lauric)	SPC (5,000col./g.)	Coliform (10 col./g.)	Molds (100 col./g.)	Yeasts (100 col./g.)	E. Coli (Neg./10g.)	Salmonella (Neg./50g.) †
2276	3.56%	23.18mm-35.47mm	4.0mm	0.11%	60-150	0	0	0	NEGATIVE	NEGATIVE

ORGANOLEPTIC TEST

Visual evaluation (color)	Olfactory evaluation (odor)	Flavor evaluation (flavor)	Cohesiveness evaluation (crispiness)
<i>Golden yellow with glossy surface</i>	<i>Typical banana aroma with slight smell of vegetable oil</i>	<i>Typical banana flavor, slightly sweet, no rancid or off taste</i>	<i>Crunchy and firm but not excessively hard</i>

Note: Microbiological Reference: Bacteriological Analytical Manual 8th Revision A
Chemical Reference: According to AOAC

Certified by:

Nutland
 For the attention of
Quality manager
 Laan van Oversteen 20
 2289 CX RIJSWIJK
 NEDERLAND



Email quality@nutland.nl

Sample code Nr.	890-2022-00038319	Report Date	21/11/2022
Analytical Report Nr.	AR-22-RM-036454-02 / 890-2022-00038319		

(*this report cancels and replaces the previous one, numbered AR-22-RM-036454-01/890-2022-00038319 dated 14/11/2022 which must be destroyed)

Our reference :	890-2022-00038319 / AR-22-RM-036454-02		
Client reference :	P80447-67431		
Sample described as :	BANPH901 Bananachips, Organic, Whole Honeydipped, Philippines		
Your purchase order date :	09/11/2022	Your purchase order reference :	P80447-67431
Sample reception date :	10/11/2022	Analysis starting date :	10/11/2022
Analyses requested :	ZVM01: Mineral oil MOSH, MOAH, high fatty food RMA05: Project handling RMA00: Sample preparation Chemistry		
Quantity	22.453,2 kg (3.300 x 15lb)	Supplier	S1520
Sample description	Bananachips, Organic, Whole Honeydipped	Batch no	2276
Sample Order Code	005-10507-1843932		
OnlinePortal			

CHEMICAL ANALYSIS		Results	
ZVM01	ZV Mineral oil MOSH, MOAH, high fatty food	Method : Own method (procedure conform NEN-EN 16995), LC-GC-FID	
(Q#)	MOSH/POSH (saturated) C10-16	<0.4 mg/kg	
(Q#)	MOSH/POSH (saturated) C16-20	<0.4 mg/kg	
(Q#)	MOSH/POSH (saturated) C20-25	<0.4 mg/kg	
(Q#)	MOSH/POSH (saturated) C25-35	2.1 mg/kg	
(Q#)	MOSH/POSH (saturated) C35-50	1.4 mg/kg	
(Q#)	MOSH/POSH C20-35 (sum, calculated)	2.3 mg/kg	
(Q#)	MOSH/POSH C10-50 (sum, calculated)	3.8 mg/kg	
(Q#)	MOAH (aromatic) C10-16	<0.1 mg/kg	
(Q#)	MOAH (aromatic) C16-20	<0.1 mg/kg	
(Q#)	MOAH (aromatic) C20-25	<0.1 mg/kg	
(Q#)	MOAH (aromatic) C25-35	0.16 mg/kg	
(Q#)	MOAH (aromatic) C35-50	<0.1 mg/kg	
(Q#)	MOAH C16-35 (sum, calculated)	0.16 mg/kg	
(Q#)	MOAH C10-50 (sum, calculated)	0.16 mg/kg	

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CONCLUSION

Judgement MOSH/POSH & MOAH

Legislation food:

There are no official maximum levels for MOHs in food according to EU legislation . Food must be safe REG 178/2002 Art. 14. Food business operations and Art. 19. applicable for withdraw or recall to ensure human health protection. Analysis and sampling should be done based on the provisions of Regulation (EC) No 333/2007. For MOSH from the source of food grade quality, highly viscous white oils 95% > C25 applies an ADI of 12 mg/kg body weight acc. to EFSA Opinion 2012 / ASN panel.

According to the statement of the European Commission of the Standing Committee on Plants, Animals, Food and Feed of 21/04/2022, the following max. limits for the sum MOAH were established in food, including food for infants and young children.

In order to ensure a uniform enforcement approach throughout the EU, the Member States agreed to withdraw and, if necessary, to recall products from the market, when the sum of the concentrations of MOAH in food are at or above the following maximum limits. Santé.ddg2.g.5(2022)3966048 based on JRC115694 of 21-04-2022.

Maximum limit MOAH C10-50 low fat/oil content <4%:	0.5 mg/kg food (Santé.ddg2.g.5(2022)3966048)
Maximum limit MOAH C10-50 higher fat/oil content >4%:	1 mg/kg food (Santé.ddg2.g.5(2022)3966048)
Maximum limit MOAH C10-50 fat/oil:	2 mg/kg food (Santé.ddg2.g.5(2022)3966048)

The German Federal Institute for Risk Assessment (BfR) & the Federal Ministry of Food, Agriculture, LAV-BLL published guideline values and a draft regulation on the recommended maximum limits for Mosh in ready to eat food(draft Juni 2020).

Maximum limit Mosh C10-50 Fat/oil (not intended for use with oils/fats obtained from tropical plants) 13 mg/kg
 Maximum limit Mosh C10-50 Bread and biscuits, fine baked goods, grain products and grain-based products, cereals, rice, pasta (not for raw goods or raw dough) 6 mg/kg
 Maximum limit Mosh C10-50 Confectionery (sugar confectionery other than chewing gum), chocolate and cocoa-based confectionery 9 mg/kg
 Maximum limit Mosh C10-50 Nuts, oilseeds, coconut, peanuts and dried fruits and mixtures thereof 4 mg/kg

The Belgian SciCom 2016/15 reports action thresholds of MOSH (C16-C35) in several food products.

Reasons for new version

Revised conclusion

SIGNATURE


Rapporten zonder stempel zijn ongeldig.
 Reports without stamp are not valid.



Niels Martha
 Business Unit Cluster Manager

Report electronically validated by Vince Leeuwestein

EXPLANATORY NOTE

The test certificate shall not be reproduced except in full, without written approval of the laboratory. The results are only valid for the sample as received.

The uncertainty of measurement for the applied methods of analysis are retrievable from the ASM department .

Opinions and interpretations in this certificate are outside the scope of accreditation.

The samples will be stored until 91 days after the date of reception.

The analyses that state -M after the reference method should be interpreted as equal to the aforementioned reference method.

The tests identified by the two letters code ZV are performed in laboratory Eurofins Lab Zeeuws-Vlaanderen. The symbol (Q#) identifies the tests under accreditation EN ISO/IEC 17025: 2017 RvA Testing L201. The symbol (#) identifies tests without accreditation.