

JOINT RESEARCH CENTRE  
Institute for Reference Materials and Measurements

# CERTIFICATE OF ANALYSIS

ERM<sup>®</sup> - BD282

WHOLE MILK POWDER (zero level)		
Compound	Mass fraction	
	Certified value <sup>1</sup> [µg/kg]	Uncertainty [µg/kg]
Aflatoxin M <sub>1</sub>	< 0.02	-
1) Mass fraction below the limits of detection of less than 0.02 µg/kg with a probability of 95 %, independently obtained by 9 laboratories and traceable to analytical methods based on immunoaffinity clean-up, separation by high-performance chromatography and fluorometric detection of the target analyte.		

This certificate is valid for one year after purchase.

Sales date:

The minimum sample intake is 10 g.

## NOTE

European Reference Material ERM<sup>®</sup>-BD282 was produced and certified under the responsibility of the IRMM according to the principles laid down in the technical guidelines of the European Reference Materials<sup>®</sup> co-operation agreement between BAM-IRMM-LGC. Information on these guidelines is available on the Internet (<http://www.erm-crm.org>).

Accepted as an ERM<sup>®</sup>, Geel, November 2004  
Latest revision: October 2013

*Signed:*  
**INFORMATION ONLY**

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## DESCRIPTION OF THE SAMPLE

The material is a whole milk powder. It is supplied in units of at least 30 g in amber glass bottles filled and sealed under nitrogen.

## ANALYTICAL METHOD USED FOR CERTIFICATION

The methods used for certification involved instrumental determination by high performance liquid chromatography using a variety of separation techniques and fluorescence detection. The methods mainly varied in their initial extraction and clean-up procedures. Details of the methods used are given in the certification report.

## PARTICIPANTS

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## SAFETY INFORMATION

Not applicable.

## INSTRUCTIONS FOR USE

The material is intended to serve as analytical blank for the determination of aflatoxin M<sub>1</sub> in milk or milk powder:

- a) for recovery experiments;
- b) to investigate laboratory contamination during storage and analysis of samples;
- c) to investigate limits of detection of analytical procedures.

The laboratory must judge whether the given limit of the aflatoxin M<sub>1</sub> mass fraction is sufficient for its purposes.

The bottles should be allowed to warm to ambient temperature before opening to avoid water condensation. Before sub-samples are taken the content should be thoroughly mixed. The materials may be used as received or after reconstitution with water to simulate liquid milk. Recommendations for the reconstitution procedure are given in the certification report (c.f. Instructions for use).

Dispose in accordance with good laboratory practice.

## STORAGE

The bottles should be stored unopened at - 20 °C or less.

## **LEGAL NOTICE**

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## **NOTE**

A detailed technical report is available on [www.irmm.jrc.be](http://www.irmm.jrc.be). A paper copy can be obtained from the Joint Research Centre, Institute for Reference Materials and Measurements on request.