JOINT RESEARCH CENTRE
Institute for Reference Materials and Measurements

CERTIFICATE OF ANALYSIS

ERM®- BD283

WHOLE MILK POWDER (low level)		
Compound	Mass fraction	
	Certified value [1] [µg/kg]	Uncertainty [2] [µg/kg]
Aflatoxin M_1	0.111	0.018

1) Unweighted mean of accepted mean values, independently obtained by 7 laboratories and traceable to analytical methods based on immunoaffinity clean-up, separation by high-performance chromatography and fluorometric detection of the target analyte.
2) Estimated expanded uncertainty U with a coverage factor k = 2, corresponding to a level of confidence of about 95 %, as defined in the Guide to the Expression of Uncertainty in Measurement (GUM), ISO, 1995.

This certificate is valid for one year after purchase.

Sales date:

The minimum sample intake is 10 g.

NOTE

European Reference Material ERM®-BD283 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® co-operation agreement between BAM-IRMM-LGC. Information on these guidelines is available on the Internet (http://www.erm-crm.org).

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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.

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SAFETY INFORMATION

Aflatoxin M_1 is a known carcinogen and should be handled with extreme caution. The bottles should be used only by personnel who are trained in the safe handling and use of the contents.

Normal safety precautions should be followed and in particular the following. The bottles should be opened inside a safety cabinet or fume cupboard. Normal laboratory safety wear including protective clothing (laboratory coat), safety glasses and gloves should be worn. For more detailed information see the MSDS.

INSTRUCTIONS FOR USE

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.

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NOTE

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

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