



JOINT RESEARCH CENTRE
Institute for Reference Materials and Measurements

CERTIFICATE OF ANALYSIS

ERM[®] - BE375

COMPOUND FEEDINGSTUFF		
	Mass fraction	
	Certified value ²⁾ [µg/kg]	Uncertainty ³⁾ [µg/kg]
Aflatoxin B ₁ ¹⁾	2.6	0.4
Aflatoxin B ₂ ¹⁾	0.20	0.04
Aflatoxin G ₁ ¹⁾	0.40	0.10
Aflatoxin G ₂ ¹⁾	< 0.2 ⁴⁾	- ⁵⁾

1) As obtained, after extraction, by reversed phase chromatography with post column bromination and subsequent quantification by fluorescence detection.
2) Unweighted mean value of the means of accepted sets of data, each set being obtained in a different laboratory. The certified value and its uncertainty are traceable to the International System of Units (SI).
3) The certified uncertainty is the expanded uncertainty estimated in accordance with the ISO/IEC Guide 98-3:2008 (GUM) with a coverage factor $k = 2$, corresponding to a level of confidence of about 95 %.
4) The stated value is based on the limits of quantification of the methods employed. The mass fraction of Aflatoxin G₂ in BE 375 is with a 95 % level of confidence below the stated value.
5) Not applicable (see 4).

This certificate is valid for one year after purchase.
Sales date:
The minimum amount of sample to be used is 10 g.

NOTE

European Reference Material ERM[®]-BE375 was produced and certified under the responsibility of the Institute for Reference Materials and Measurements of the European Commission's Joint Research Centre 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>).

Accepted as an ERM[®], Geel, September 2010
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Signed: _____

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DESCRIPTION OF THE SAMPLE

ERM-BE375 is a compound feeding stuff mixed from contaminated copra, wheat, barley, soya, maize and a mineral / vitamin premix. The materials were milled individually and sieved through a 500 µm stainless steel sieve before homogenisation. One unit consists of two amber glass bottles filled with ~ 75 g of compound feedingstuff each. The two bottles are packed in a plastic bag.

ANALYTICAL METHOD USED FOR CERTIFICATION

All results were obtained employing an immunoaffinity column clean-up and reversed phase high performance liquid chromatography with post column derivatisation (either electrochemical bromination with potassium bromide or bromination with pyridinium hydrobromide perbromide) and fluorescence detection. Different solvents and techniques were used for extraction.

PARTICIPANTS

Laboratorio Normativo de Salud Pública, Bilbao (ES)

(accredited to ISO 17025 for measurement of aflatoxins in food; ENAC 132/LE326)

LGC Ltd., Teddington (GB)

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Nederlandse Organisatie voor Toegepast - Natuurwetenschappelijk Onderzoek (TNO), Zeist (NL)

(accredited to ISO 17025 for measurement of aflatoxins in food and feed; RvA L027)

Österreichische Agentur für Gesundheit und Ernährungssicherheit GmbH (AGES), Linz (AT)

(accredited to ISO 17025 for measurement of aflatoxins in food and feed; BMWA 184)

Premier Foods, RHM Technology, High Wycombe (GB)

(accredited to ISO 17025 for measurement of aflatoxins in food and food products; UKAS 1288)

Rijksinstituut voor Volksgezondheid en Milieu (RIVM), Bilthoven (NL)

(accredited to ISO 17025 for measurement of aflatoxins in food and feed; RvA L408)

RIKILT - Instituut voor Voedselveiligheid, Wageningen (NL)

(accredited to ISO 17025 for measurement of aflatoxins in food and feed; RvA L014)

Wiertz – Eggert - Joerissen, Hamburg (DE)

(accredited to ISO 17025 for measurement of aflatoxins in food and feed; DAP-PL-1453.99)

SAFETY INFORMATION

The usual laboratory safety precautions apply. The mass fractions of aflatoxins in ERM-BE375 are well below the maximum levels for animal feed of the European Union.

INSTRUCTIONS FOR USE AND INTENDED USE

This material is intended to be used for performance control and validation purposes, of methods targeting the certified measurands. Samples should be allowed to warm to ambient temperature (e.g. overnight) before opening to avoid water condensation. The content of the bottle used should be thoroughly mixed before sub-samples are taken. The animal feed should be weighed out immediately after opening the bottle and the mass fraction of the aflatoxins has to be calculated based on this mass.

STORAGE

The material should be stored at - 20 °C ± 5 °C.

However, the European Commission cannot be held responsible for changes that happen during storage of the material at the customer's premises, especially of opened samples.

LEGAL NOTICE

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NOTE

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

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