

JOINT RESEARCH CENTRE  
Institute for Reference Materials and Measurements

# CERTIFICATE OF ANALYSIS

ERM<sup>®</sup> - BF418b

| DRIED MAIZE POWDER                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                         |                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mass Fraction                           |                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Certified value <sup>1)</sup><br>[g/kg] | Uncertainty <sup>2)</sup><br>[g/kg] |
| 1507 maize                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.0                                     | -0.2 ; +0.6                         |
| <p>1) The certified value is based on the mass fraction of dried non-genetically modified powder and dried genetically modified powder mixed and corrected for the water content. The certified value is traceable to the SI.</p> <p>2) The certified uncertainty is the expanded uncertainty estimated in accordance with the Guide to the Expression of Uncertainty in Measurement (GUM) with a coverage factor <math>k = 2</math>, corresponding to a level of confidence of about 95 %.</p> |                                         |                                     |

This certificate is valid for one year after purchase.

Sales date:

The minimum amount of sample to be used is 100 mg.

## NOTE

European Reference Material ERM<sup>®</sup>-BF418b 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, August 2005  
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**INFORMATION ONLY**

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## DESCRIPTION OF THE SAMPLE

ERM<sup>®</sup>-BF418b is part of a set of four maize powder CRMs containing different mass fractions of genetically modified (GM) 1507 maize. The set of CRMs (ERM<sup>®</sup>-BF418a, ERM<sup>®</sup>-BF418b, ERM<sup>®</sup>-BF418c and ERM<sup>®</sup>-BF418d) was produced and certified under the responsibility of the Institute for Reference Materials and Measurements of the European Commission's Directorate General Joint Research Centre (EC-DG JRC-IRMM). The materials were prepared by quantitative mixing of dried non-GM maize powder and 1507 GM dried maize powder, and subsequent homogenisation with the help of a dry-mixing technique. ERM<sup>®</sup>-BF418b is available in glass bottles containing approximately 1 g of maize powder closed under argon atmosphere.

This reference material has been produced from whole kernels of non-modified maize and 1507 maize of seed quality delivered by Pioneer Hi-Bred International (Johnston, IA, USA). According to European Commission regulation (EC) No 65/2004 the event 1507 maize received the unique identifier DAS-Ø15Ø7-1. According to the information provided by Pioneer the genetically modified donor for the heterozygous 1507 maize was the female parent.

## ANALYTICAL METHOD USED FOR CERTIFICATION

Gravimetric preparation confirmed by real-time Polymerase Chain Reaction (rt-PCR).

## PARTICIPANTS

EC-DG JRC-IRMM, Geel, BE\*

\* Measurements within the scope of accreditation to ISO/IEC 17025.

## SAFETY INFORMATION

Not applicable.

## INSTRUCTIONS FOR USE

CRM ERM<sup>®</sup>-BF418b is intended to be used for the quality control or calibration of methods for the detection of genetically modified food.

A difference in DNA extractability between the two base materials has been observed when applying the CTAB extraction method. The application of method with different DNA extraction efficiencies contributes additionally to the uncertainty. Therefore laboratories are reminded to check and validate the extraction methods used in order to minimise influences.

## STORAGE

Bottles should be stored dry and in the dark at maximum + 4 °C. However, the European Commission cannot be held responsible for changes that happen during storage of the material at the customer's premises. We recommend to use samples once opened as soon as possible.

## 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 IRMM on request.