American Oil and Chemists' Society
Certified Reference Materials
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CERTIFICATE OF ANALYSIS

AOCS 0406-A2 | Non-Modified | Maize | Powder

Certified Presence	Certified Value	Measurement Uncertainty	Test Method
MON 87403, MON 87411, MON 87419, MON 88017, MON 89034, MON 87460, MON 87427, MON 84729, MON 94804, MON 95275, and MON 95379 absent	0 g/kg*	0.8 g/kg*	event-specific real-time PCR

Description: This is the second batch of non-modified maize CRM prepared by AOCS for Bayer CropScience. It was produced in February 2021. The certified value is based on a sample purity of 100% (3750 out of 3750 seeds tested negative for all of the above events). The measurement uncertainty is the expanded uncertainty using the value of the upper bound of impurity. The standard uncertainty can be obtained by dividing the expanded uncertainty by $2\sqrt{3}$ (rectangular distribution). This material is for limited purposes only: see "Intended Use" and "Terms and Conditions." * MON 94804, 95275 and MON 95379 are NOT included for the Certified Value and Measurement Uncertainty for this CRM.

This certificate is valid through: July 2027

This validity date may be extended when further evidence of stability becomes available. Customers will be notified by AOCS if a stability issue arises at AOCS Headquarters.

Introduced: 10-JUN-21
Revised: 05-JUL-22, 11-JAN-23, 07-JUL-23, 01-JUL-24, 07-NOV-24, 18-JUL-25, 07-JUL-26

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AOCS Mission: AOCS advances the science and technology of oils, fats, proteins, surfactants and related materials, enriching the lives of people everywhere.

Characterization

Product Description AOCS 0406-A2 has been prepared by AOCS from maize seed. AOCS 0406-A2 is available in 27-mL glass headspace vials containing approximately 10 g of material. Users are informed that this reference material has been produced from seed of non-modified maize delivered by Bayer CropScience. The non-modified maize used in the preparation of AOCS 0406-A2 is a hybrid cross of two inbred conventional line.

Homogeneity The homogeneity of 0406-A2 is related to the purity of the seeds. 3750 out of 3750 seeds tested negative for the MON 87403, MON 87411, MON 87419, MON 88017, MON89034, MON 87460, MON 87427 and MON 87429 event by event-specific PCR. Based on the sample impurity of 0%, as determined using SeedCalc8, the batch was considered to be homogeneous.

In addition, ten packaged samples, 10 g each, were tested using event-specific qualitative PCR methods developed and validated by Bayer CropScience. Test results received from Eurofins-GeneScan, New Orleans, LA (an ISO 17025-accredited laboratory) for qualitative, event-specific analysis were all consistent with the reported absence of MON 87403, MON 87411, MON 87419, MON 88017, MON 89034, MON 87460, MON 87427, MON 87429, MON 94804, MON 95275 and MON 95379 events.

Stability AOCS Certified Reference Materials are assessed for transport (short-term) and long-term stability and tested for stability on an annual basis and certificates may be extended based on the outcome of this testing. Customers may request extended certificates, but they are informed that results are based on samples that are obtained from AOCS' inventory. AOCS cannot guarantee the integrity of samples outside of our control.

Analytical Method Used for Certification

The Certified value is based on the purity of the material used in production of this CRM. Eurofins-GeneScan, New Orleans, LA (an ISO 17025-accredited laboratory) performed event-specific real-time PCR to validate the absence of the MON 87403, MON 87411, MON 87419, MON 88017, MON 89034, MON 87460, MON 87427, MON 87429, MON 94804, MON 95275 and MON 95379 events. Purity and stability results were used to determine the expanded uncertainty of the certified value.

Warnings and Precautions

This product is for laboratory use only and is not for consumption. The user of this CRM should follow safety requirements and rules issued by voluntary organizations and government agencies expert in the field of laboratory safety.

Intended Use

This CRM, AOCS 0406-A2, is intended for use as quality control material or calibrant in methods for the detection, identification, and/or quantification of biotechnology-derived events.

Instructions for Use

Upon receipt the product should be stored in a sealed container in the dark and at ambient or cooler conditions. The product may have settled during shipment, therefore, thoroughly mix the CRM before use to ensure homogeneity.

If the user of this CRM intends to use it multiple times, proper protocols must be followed to ensure that the sample retains its integrity. Use a clean laboratory spatula to remove the intended sample amount. After the sample has been removed, flush the headsapce of the vial with nitrogen gas, then replace the rubber stopper. Place a new 20mm tear-off aluminum unlined seal on top of the rubber stopper and crimp it to the vial by using a crimping tool. Store the CRM in the dark and at ambient or cooler conditions and repeat this process for all subsequent uses.

Sample size:

The recommended **sample intake** suitable for DNA extraction and real time PCR is 1 g.

Protocols have been followed to ensure that this CRM is absent of the traits it has been tested against. Please follow all instructions on this certificate to prevent contamination and be sure to store the CRM under the proper conditions.

Note: The AOCS 0406-A2 certification report is available online and a paper copy will be supplied upon request.

Terms and Conditions (i–ix)

i. The CRM AOCS 0406-A2 shall be used solely 1) in assays for (a) detecting the absence of MON 87403, MON 87411, MON 87419, MON 88017, MON 89034, MON 87460, MON 87427, MON 87429, MON 94804, MON 95275 and MON 95379 or (b) quantification of MON 87403, MON 87411, MON 87419, MON 88017, MON 89034, MON 87460, MON 87427, MON 87429, MON 94804, MON 95275 and MON 95379 ; or 2) for determining whether an assay cross-reacts with CRM AOCS 0406-A2. CRM AOCS 0406-A2 shall be used for no other purpose. Specifically, the CRM may not be used to develop a detection method for non-modified nor trait(s) present therein. No other rights are conveyed by the sale of the CRM 0406-A2 to any purchaser, including any rights to any pending or granted Bayer CropScience Patents or other Bayer CropScience Intellectual Property that may protect the CRM or non-modified or trait(s) present therein or a detection method for non-modified powder.

ii. Neither the CRM AOCS 0406-A2 nor any extract or portion thereof shall be resold or redistributed by any purchaser, unless the resale or redistribution is required by national law in force in the purchaser's country.

iii. Neither the CRM AOCS 0406-A2, nor any extract or portion thereof, shall be used for human or animal consumption or human or animal trials.

iv. Neither the CRM AOCS 0406-A2 nor non-modified DNA, nor any part of either of these, shall be used for transformation or breeding.

v. No characterization or derivation of MON 87403, MON 87411, MON 87419, MON 88017, MON 89034, MON 87460, MON 87427, MON 87429, MON 94804, MON 95275 and MON 95379 of the trait or traits present in CRM AOCS 0406-A2, or of the CRM AOCS 0406-A2 shall be performed, except as allowed for in section (i).

vi. All assay activities undertaken using the CRM AOCS 0406-A2 shall be conducted in strict compliance with all Applicable Laws governing such activities and shall comply with conditions of all permits and authorizations which may be required for such activities; and such activities shall be strictly limited to assays in contained facilities, for example, laboratories.

vii. Prior to disposal of any used or excess CRM AOCS 0406-A2 or residues thereof, such material or residue must be treated in a manner that degrades the CRM material, such as by autoclaving.

viii. CRM AOCS 0406-A2 shall not be exported nor re-exported in violation of any Applicable Laws or without securing any necessary export or import clearances or permits.

ix. THE CRM AOCS 0406-A2 IS PROVIDED FOR THE PURPOSE OF IDENTIFYING, DETECTING AND QUANTIFYING THE EVENT AND FOR NO OTHER PURPOSE. AOCS HAS TESTED CRM AOCS 0406-A2 WITHIN THE PAST 12 MONTHS AND STATES THAT IT HAS DETERMINED IT TO BE OF SUFFICIENT QUALITY AND FIT FOR THE PURPOSES STATED HEREIN. NO BAYER CROPSCIENCE WARRANTY IS PROVIDED, WHETHER EXPRESS OR IMPLIED, IN RELATION TO THE CRM AOCS «AOCS_PRODUCT_NO» AND BAYER CROPSCIENCE MATERIALS. BAYER CROPSCIENCE MAKES NO REPRESENTATION OR WARRANTY THAT THE USE OF THE CRM AOCS 0406-A2, WHETHER BEFORE, OR AFTER THE EFFECTIVE DATE OF THE APPLICABLE CERTIFICATE, WILL NOT INFRINGE ANY PATENT OR OTHER PROPRIETARY RIGHTS.