



# Certificate of Analysis

## CERTIFIED REFERENCE MATERIAL

**Karl Fischer Solid standard for oven method (water content 1%)**

Lot N: 1143815  
Barcode: 61330054

Ref N: CM 53722

Certification Date: 07.08.2025

**Certified value:** 0.994 +/- 0.050 % H<sub>2</sub>O

**Metrological traceability:** The metrological traceability is assured through Karl Fischer coulometric titration. The method is tested against NIST SRM 2890. The measured water content is traceable to SI-unit (kg)

**Calibration method:** CRM's calibration procedure (WQP 5.15.1.26)

Storage Conditions: Store under normal laboratory conditions, at temperatures between 15°C to 25°C

Shelf-life: 07.09.2028

### Concept of Certification and traceability statement:

*The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k = 2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%. The standard uncertainty of measurement has been determined in accordance with EA 4/02*

*Property of the result of a measurement whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties (ISO VIM [5]).*

*All analytical balances used for the preparation of the solution are calibrated yearly under an in-house procedure with class E1 and class E2 analytical weights, traceable to SI (DKD) and are checked daily.*

*Class A laboratory glassware is used.*

*The results from temperature measurement are traceable to SI. The thermometers used for solution's calibration are calibrated from an ISO 17025 accredited laboratory. The ambient conditions are controlled with a hygrometer calibrated from an ISO 17025 accredited laboratory.*

### Intended use:

#### For Laboratory Use Only

This CRM is intended for:

For Laboratory Use Only

Calibration by Karl Fischer coulometric/ volumetric titration.

Karl Fischer oven method

Validation of analytical methods

Preparation of "working reference samples"

Detection limit and linearity studies

These statements are not intended to restrict the use for other purposes.

### Instructions for the correct use of this reference material:

This standard can be used as an oven standard for a temperature range of 140-160°C. This certified reference material can be used directly. No sample preparation is required.

### Stability and storage:

This CRM is with a guaranteed stability until 0.5% of the certified value within its shelf-life. Stability is guaranteed provided that the solution is kept in its original packaging, tightly closed under normal laboratory conditions. According to an in-house procedure the producer will monitor this CRM at appropriate intervals and the purchasers will be notified of any significant changes resulting in recertification or with withdrawal of the CRM during the state period of the validity of the certificate.

### Hazardous situation:

The normal laboratory safety precautions should be observed when working with this CRM. Further details for the handling of this CRM are available as safety data sheet.

### Level of homogeneity:

This CRM was mixed according to an in-house procedure and is guaranteed to be homogeneous. To ensure sufficient homogeneity of the sample prior to use thoroughly mix by inversion.

### Names of certifying officers:

Laboratory: Galya Jeleva

Manager: Krassimira Taralova

*This document is designed and the certified value(s) and uncertainty(ies) are determined in accordance with ISO Guide 31, ISO Guide 35, and Eurachem / CITAC Guides*

*This certificate relates solely to the lot number given above.*

*All processes (including generating of this certificate) are completely controlled by the specialized Computer-Aided-Manufacturing (CAM) software.*

*This Certified Reference Material was produced under a quality management system that is:*

- Registered to ISO 9001 Quality Management System (Lloyd's Register Quality Assurance Ltd Cert No 0039638)*
- Accredited according to ISO/IEC 17025*
- Accredited according to ISO 17034*