Certificate of Analysis

Apura® Reference Material

Water Standard 0.01 %, 1 g = 0.1 mg H_2O
Standard for coulometric Karl Fischer Titration

1880500010 **Lot No.: HC55200150**

Certified reference material for volumetric and coulometric water determination acc. to Karl Fischer.

Method of analysis
For certification the water content was determined acc. to ISO 760 with the Karl Fischer method by means of a volumetric titrator and a coulometer using a cell with diaphragm.

Water content: **0.0094 % H_2O (equivalent to 0.094 mg/g H_2O)**

Measurement uncertainty: **± 0.0010 % H_2O (equivalent to 0.010 mg/g H_2O)**

Equivalent to the expanded measurement uncertainty with coverage factor k = 2 for 95% coverage probability.

Traceability
This reference material is directly traceable to standard reference material SRM 2890 from NIST, National Institute of Standards and Technology, Gaithersburg, USA.

Application
Water standard 0.01% is intended for use as a reference material for checking the accuracy of Karl Fischer equipment acc. to ISO 9001 and for calibration (titer determination) of coulometric Karl Fischer titrators. It can also be used to check measuring results.

Instructions for correct use
1. Open ampoule at the marked point of break.
2. Rinse a glass or plastic syringe 1-2 times with about 1 ml of standard solution.
3. Draw up entire ampoule content in the rinsed syringe.
4. Weigh the filled syringe before injection.
5. Inject about 1-2 ml of standard solution into titration cell and start titration.
6. Determine exact standard solution weight by reweighing the syringe after injection.
7. Repeat determination. The content of one ampoule is sufficient for 3-4 determinations.

Important: Open the ampoule only directly prior to starting of measurement. Solvent in the opened ampoule can absorb moisture and distort results.

Date of release: 2015/02/25

Minimum shelf life: 2020/02/28

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