

CERTIFICATE OF GRAVIMETRIC PREPARATION

PRODUCT: IC Standard Nitrite 1000 mg/L in H₂O
PRODUCT No.: ICAS11
LOT NO.: ICAS1125E1
DATE OF PREPARATION: 15th May 2025
EXPIRY DATE: 28th May 2026
DENSITY VALUE: 0.999 g/mL @ 20 °C

PREPARATION OF STANDARD:

All standard components have been pre-qualified/verified before use. All analytical measuring devices and instrumentation have been pre-calibrated. The actual concentrations reported below are based on this preparation methodology and compound impurities.

Raw Material	Analyte	Nominal mg/L	Actual mg/kg
Sodium Nitrite	Nitrite, as NO ₂ ⁻	1000	1000 ± 0.2 %

1000 mg/kg is equivalent to 999 mg/L @ 20 °C.

The expanded uncertainty (k=2) due to weighing, volumetric preparation and homogeneity is calculated in compliance with EURACHEM/CITAC Guide: Quantifying Uncertainty in Analytical Measurements as ± 0.2 %. All values are verified by IC analysis using externally sourced ISO 17034 accredited Certified Reference Materials as calibrants/quality controls where possible.

TRACEABILITY IN THE PRODUCTION OF THIS STANDARD:

This product was prepared gravimetrically on a mass/mass basis, using balances calibrated by Reagecon engineers with mass standards traceable to the National and International primary standard of mass. Reagecon holds ISO 17025 accreditation for calibration of non-automatic weighing machines. The resulting Balance Certificate of Calibration was issued in accordance with the requirements of ISO/IEC 17025. The balance was calibrated under monitored environmental conditions and atmospheric pressure. Tests were performed for capacity, readability, repeatability, eccentricity, and linearity.

TEST METHOD:

The mean result of this standard was verified using a calibrated IC system according to an in-house test method. The result reported in this certificate was confirmed by analysis of a sample of this lot taken at time of manufacture. The density of this standard was determined using a high-performance calibrated density meter.

This certificate relates solely to the lot number given above.

Approved By: QC Technician

A handwritten signature in dark ink, appearing to read "J. M. Miller", is written over a light blue circular stamp.

Date: 23rd May 2025

This certificate must not be reproduced except in full.