

CERTIFICATE OF GRAVIMETRIC PREPARATION

PRODUCT: IC Multi-Element Standard (6 elements) in H₂O
PRODUCT No.: ICC-DX-621
LOT NO.: ICCDX62125E1
DATE OF PREPARATION: 23rd May 2025
EXPIRY DATE: 28th May 2027
DENSITY VALUE: 1.002 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.

Elements	Nominal mg/kg	Actual mg/kg	Actual mg/L @ 20°C
Ammonium, as NH ₄ ⁺	249.5	249.7	250.2
Calcium, as Ca ²⁺	500.0	498.7	499.7
Potassium, as K ⁺	499.1	499.4	500.4
Lithium, as Li ⁺	49.9	49.9	50.0
Magnesium, as Mg ²⁺	249.5	249.7	250.2
Sodium, as Na ⁺	199.6	199.7	200.1

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 a balance 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. Smith', is written over a faint, light-colored circular stamp.

Date: 12th June 2025

This certificate must not be reproduced except in full.