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CERTIFICATE OF GRAVIMETRIC PREPARATION

PRODUCT:	Concentrate to make Nitrate Standard 5002102 in accordance with European Pharmacopoeia
PRODUCT No.:	5002102C
MATRIX:	H_2O
LOT NO.:	521C25B1
DATE OF PREPARATION:	26th February 2025
EXPIRY DATE:	28th February 2026
DENSITY VALUE:	0.999 g/ml @ 20 °C

PREPARATION OF CONCENTRATE:

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.

Analyte	Raw Material	Nominal mg/kg	Actual mg/kg
Nitrate, as NO_3	Potassium nitrate	1000	1001 ± 0.2 %

1001 mg/kg is equivalent to 1000 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.

DILUTION INSTRUCTIONS FOR PREPARATION OF Ph. Eur. 5002102 (2ppm NO_3 aq.)

1. To prepare Ph. Eur. 5002102 (2ppm Nitrate, as NO_3) dilute this solution to 500 times it's volume with purified water.
2. Prepare the dilute solution immediately before use.

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

gabriel

Date: 03rd March 2025