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CERTIFICATE OF GRAVIMETRIC PREPARATION

PRODUCT:	AA Standard Potassium 10,000 mg/L
PRODUCT No.:	AAK-M
MATRIX:	1M HNO_3
LOT NO.:	AAKM21K1
DATE OF PREPARATION:	21st October 2021
EXPIRY DATE:	28th October 2024
DENSITY VALUE:	1.027 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.

Analyte	Raw Material	Nominal mg/kg	Actual mg/kg
Potassium, as K	Potassium Nitrate	9737	9725 ± 0.2 %

9725 mg/kg is equivalent to 9988 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 ICP-MS 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. The solute was weighed on a balance calibrated by Reagecon engineers using mass standards traceable to the National and International primary standard of mass. Reagecon holds ISO 17025 accreditation for calibration of non-automatic weighing machines (265C). 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.

BALANCE ID No.: RRD077 **CALIBRATION DATE OF BALANCE:** 3rd August 2021

BALANCE ID No.: A-0944 **CALIBRATION DATE OF BALANCE:** 23rd July 2021

BALANCE ID No.: RRD078 **CALIBRATION DATE OF BALANCE:** 17th June 2021

CALIBRATION AUTHORITY OF BALANCE: Reagecon Diagnostics Ltd, ISO17025 Accreditation No. 265C.

TEST METHOD:

The mean result of this standard was verified using a calibrated ICP-MS 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: Paul O'Sullivan

Date: 1st November 2021