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CERTIFICATE OF GRAVIMETRIC PREPARATION

PRODUCT:	Flame Photometry Standard
	Sodium 140mmol/L and Potassium 5mmol/L
PRODUCT No.:	FCNK5
MATRIX:	H_2O
LOT NO.:	FCNK520F1
DATE OF PREPARATION:	22nd June 2020
EXPIRY DATE:	28th June 2022
DENSITY VALUE:	1.004 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	Concentration mg/kg	Concentration mg/L @ 20ºC	Concentration mmol/L @ 20ºC
Na	3208	3220	140.1
K	195.0	195.8	5.01

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:** 18th June 2020

BALANCE ID No.: RRD089 **CALIBRATION DATE OF BALANCE:** 19th September 2019

BALANCE ID No.: RRD078 **CALIBRATION DATE OF BALANCE:** 19th September 2019

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: 29th June 2020