

CERTIFICATE OF GRAVIMETRIC PREPARATION

PRODUCT: Concentrate to make Phosphate Standard 5002200
in accordance with European Pharmacopoeia

PRODUCT No.: 5002200C

MATRIX: H₂O

LOT NO.: 5220C22M1

DATE OF PREPARATION: 7th December 2022

EXPIRY DATE: 28th December 2023

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
Phosphate, as PO ₄	Potassium dihydrogen phosphate	500.5	501.2 ± 0.2 %

501.2 mg/kg is equivalent to 500.7 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 EP 5002200 (5ppm PO₄ aq.)

1. To prepare EP 5002200 (Phosphate, as PO₄) dilute this solution to 100 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. 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.

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

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: Paul O'Sullivan

Date: 19th December 2022

This certificate must not be reproduced except in full.