# Altus science Certificate of Analysis

**Product Type:** Total Nitrogen Calibration/Verification or Standard Solution

**Catalogue Number:** A-7902-040

## 20.0 mg/L TN from $KNO_3$

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|---|---|
| Lot Number: | A-2572603-38 |
| Certified Value: | 20.0 mg/L TN ± 0.016 mg/L TN |
| Manufacturing Uncertainty: | U = ± 0.082 % |
| Source Material: | SIAL Potassium Nitrate 0000541032 |
| Container: | 40 mL Borosilicate Glass Vial |
| Storage/Refrigeration: | Store in original container at 5 ℃ ± 4 ℃ |
| Preservative: | N/A |
| Additional Information: | Please refer to SDS. |
| Certificate Issue Date: | 14 Sep 2026 |
| Expiry Date: | 13 Mar 2027 |

Certifying Officer: Sharon McGahan
Quality Technician

Intended Use: This Certified Reference Material (CRM) is intended for use in calibration and testing of a Total Nitrogen Analyser. This CRM may be used to verify Total Nitrogen.

Description: One unit of Altus Total Nitrogen (TN) Calibration standard consists of a solution produced from ultrapure, filtered, deionised water with an initial Total Organic Carbon (TOC) no greater than 0.050mg/L C at the point of production.

Instructions for Use: CRMs should be kept in the original shipping container and stored in accordance with the storage/refrigeration instructions upon receipt. Prior to use CRMs should be removed from storage, allowed to stabilise to ambient temperature and inverted three times. The single use container should remain tightly closed prior to use. Avoid contaminating open containers.

Metrological Traceability: CRMs are manufactured using the source material shown above, where applicable.

Period of Validity: Certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this CRM during the period of validity. Altus Science CRMs are intended for single use only. The fitness for purpose of the material cannot be guaranteed after single use or beyond the expiry date shown above.

Certified Value: The Certified Value is the manufactured concentration confirmed by Altus Science. Analytical verification and acceptance criteria are set for quality acceptance of this product. This CRM is **not** ISO 17034 compliant.

Quality Standard Documentation: Altus Science (Laboratory ID: 8020) is accredited by the United Kingdom Accreditation Service (UKAS) as a Reference Material Producer to ISO 17034:2016[4], and to ISO 17025:2017 [3] as a Testing Laboratory. This CRM is **not** ISO 17034 compliant.

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References


1) ISO 33405:2024(E), Reference Materials – Approaches for characterization and assessment of homogeneity and stability.
2) ISO/IEC Guide 98-3:2008, Uncertainty of Measurement – Part 3: Guide to the Expression of Uncertainty in Measurement (GUM:1995).
3) ISO/IEC 17025:2017(E), General Requirements for the Competence of Testing and Calibration laboratories.
4) ISO 17034:2016(E), General Requirements for Competence of Reference Material Producers.



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