

## Certificate of Analysis

## Product No.: 035560 mmonium Ion Chromatography Standard

Certified Concentration of NH<sub>4</sub><sup>+</sup>:  $1000 \pm 5 \mu g/mL$  Lot No.: 1346566

Matrix: H<sub>2</sub>O Expiry Date: August 31, 2024

**Intended Use**: This solution is intended for use as a Certified Reference Material (CRM) or calibration standard for ion chromatography (IC), or other techniques for aqueous ion detection.

Certification & Traceability: Thermo Fisher Scientific is ISO 9001:2015 certified. This CRM was manufactured and certified by a Thermo Fisher Scientific supplier under an ISO 9001 and ISO/IEC 17025 quality management system. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99% pure ammonium sulfate [(NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>] dissolved and diluted with filtered (0.22µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration was determined based upon gravimetric procedures. The uncertainty associated with the certified concentration is the sum of the estimated errors due to the purity of the raw materials, the gravimetric preparation of the solution and transpiration through the container wall. Secondary verification of the certified concentration was done using an instrumental or classical wet chemistry technique and has traceability to a NIST Standard Reference Material (SRM) or a suitable alternative Reference Material when an SRM is unavailable.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) use a minimum sub-sample size of 500µL, (4) make dilutions using calibrated balances or certified volumetric class A flasks and pipettes, (5) dilute with the same matrix as the original CRM, and (6) never pour used product back into the original container. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or expose to direct sunlight. Minimize exposure to moisture or high humidity.

**Period of Validity:** Thermo Fisher Scientific guarantees the accuracy of this Specpure<sup>®</sup> solution until the expiry date shown above, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

3/15/2023 Certification Date

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