

CERTIFICATE OF ANALYSIS



Ion Chromatography Standard

Ammonia Standard

Product #: VHG-INH3-10-100

Matrix: H₂O Lot #: 10095801-1

lon	Certified Concentration and Uncertainty	
NH ₃	10.0 μg/mL	+/- 0.5% relative

This solution is intended for use as a calibration or reference standard for ion chromatography (IC) or techniques using other modes of aqueous ion detection.

Certification: VHG standards are manufactured and certified under a quality control system that is accredited to both **ISO 9001** and **ISO/IEC 17025.** This standard was prepared to a nominal concentration of 10.0μg/mL by gravimetric methods using 99% pure ammonium sulfate [(NH₄)₂SO₄] dissolved and diluted with filtered (0.22μm), 18 M-ohm deionized water. The certified concentration is 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.

Tools: The balances used in the preparation of VHG CRMs are calibrated regularly with traceability to NIST. All volumetric dilutions are performed in class A glassware which is recalibrated regularly according to NIST recommended procedures. Measurement of standard preparation temperature was done using a calibrated thermometer maintained under internal procedure 4.11-A.

Recommendations: VHG guarantees the accuracy of this solution for **12 Months** from the certification date shown below, provided it is kept tightly capped and stored under normal laboratory circumstances. We recommend that the analyst: (1) mix the solution by gentle shaking immediately prior to use, (2) use only pre-cleaned containers and transfer-ware, (3) make dilutions using certified volumetric class A flasks and pipettes, and, (4) dilute with the same matrix as the original standard.

VHG Labs, Inc.

Chuck Goudreau, Certifying Officer

See Exp. date on container

Certification Date

LGC waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.