

Certificate of Analysis

Ammonia Nitrogen Standard, 10 ppm N (12.2 ppm NH₃)

Lot Number: 1310R91

Product Number: 5450

Manufacture Date: OCT 20, 2023

Expiration Date: OCT 2024

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Chloride	12125-02-9	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Assay (Calculated)	9.95-10.05 ppm N	10.00 ppm N

Specification	Reference
Ammonia Solution, Standard (1.0 mL = 0.01 mg ammonia nitrogen)	ASTM (D 3590 A)
Ammonia Solution, Standard (1.0 mL = 0.01 mg ammonium nitrogen)	ASTM (D 3590 B)
Standard Ammonium Chloride Solution, 10.0 mg NH ₃ -N/L	APHA (4500-CN- L)
Standard Ammonium Solution	APHA (4500-NH ₃ C)
Ammonium Chloride, Standard Solution, 1.0 mL = 0.01 mg NH ₃ -N	EPA (350.2)
Ammonium Chloride, Standard Solution, 1.0 mL = 0.01 mg NH ₃ -N	EPA (350.3)
Ammonium Chloride, Standard Solution, 1.0 mL = 0.01 mg NH ₃ -N	EPA (351.4)
Standard Solution A, 1 mL = 0.01 mg NH ₃ -N	EPA (350.1)
Ammonium Chloride, Standard Solution, 1.0 mL = 0.01 mg NH ₃ -N	EPA (351.3)
Nitrogen Standard Solution (0.01 mg of N in 1 mL)	ACS (N/A)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5450-1	4 L natural poly	12 months
5450-4	120 mL natural poly	12 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Heidi J Green (10/20/2023)

Operations Manager

This document is designed to comply with ISO Guide 31 "Reference Materials --
Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.