

Certificate of Analysis

Ammonium Hydroxide, 0.500 Normal (N/2)

Lot Number: 4309H23

Product Number: 641

Manufacture Date: SEP 15, 2023

Expiration Date: SEP 2025

| Name | CAS# | Grade |
|--------------------|-----------|-----------------|
| Water | 7732-18-5 | ACS/ASTM/USP/EP |
| Ammonium Hydroxide | 1336-21-6 | ACS |

| Test | Specification | Result | NIST SRM# |
|--------------------------------------|-------------------------|------------------|-----------|
| Appearance | Colorless liquid | Passed | |
| Assay (vs. Sulfuric Acid/Methyl Red) | 0.4997-0.5007 N at 20°C | 0.5000 N at 20°C | 723 |

| Specification | Reference |
|---|---------------|
| Ammonium Hydroxide, 0.5 N | APHA (5530 C) |
| 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) |
|-------------|---------------------|---------------------------------|
| 641-32 | 1 L natural poly | 24 months |

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

Paul Brandon (09/15/2023)

Production Manager

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

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