

Certificate of Analysis

Ammonium Hydroxide, 50% (v/v)

Lot Number: 2311F88

Product Number: 640

Manufacture Date: NOV 10, 2023

Expiration Date: OCT 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)	48.5-51.5 % (v/v)	49.9 % (v/v)	723

Specification	Reference
Ammonium hydroxide, 1:1	TAPPI (T 635 om-93)
Ammonium hydroxide, 1:1	TAPPI (T 625 cm-85)
Ammonium Hydroxide Solution (1+1)	ASTM (D 1068 D)
Ammonium Hydroxide, 50% (v/v)	APHA (3500-Sc C)
Ammonium Hydroxide, 1+1	APHA (311 B)
Ammonium hydroxide, 1:1	TAPPI (T 613 cm-83)
Dilute Ammonium Hydroxide	EPA (SW-846) (9080)
Ammonium hydroxide solution (1:1)	TAPPI (T 602 cm-97)
Ammonium Hydroxide (1+1)	ASTM (D 2460)
Ammonium Hydroxide (1+1)	ASTM (E 200)

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)
640-1	4 L natural poly	24 months
640-16	500 mL natural poly	24 months
640-32	1 L natural poly	24 months

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



Sharon Travers (11/10/2023)

Operations Manager

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

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