

**CERTIFICATE OF ANALYSIS**

<b>Product Name</b>	AMMONIUM HYDROXIDE
<b>Grade</b>	Meets ACS GRADE Monograph
<b>Catalog #</b>	282000ACS
<b>Lot #</b>	C21B01CAS0000AHG
<b>Date of Manufacture:</b>	02/11/21
<b>Recommended Retest Date:</b>	Three Years from Date of Manufacture

TEST	SPECIFICATION	RESULT
Appearance	Clear, colorless	Pass
Assay (NH <sub>4</sub> OH)	28.0 - 30.0%	29.9%
Carbon Dioxide (CO <sub>2</sub> )	0.002% max.	< 0.002%
Chloride	0.5 ppm max	< 0.5 ppm
Heavy Metals (as Pb)	0.5 ppm max	< 0.5 ppm
Iron (Fe)	0.2 ppm max	< 0.2 ppm
Nitrate (NO <sub>3</sub> )	2 ppm max	< 2 ppm
Phosphate (PO <sub>4</sub> )	2 ppm max	< 2 ppm
Residue after Ignition	0.002% max.	< 0.002%
Substances Reducing Permanganate	To pass test	Pass
Total Sulfur (as SO <sub>4</sub> )	2 ppm max.	< 2 ppm

**Certification and Compliance Statements**

This lot of Ammonium Hydroxide complies with all of the current requirements listed in the American Chemical Society monograph. Certain test data have been supplied by third parties.

This product is not derived, nor does it come in contact with, any materials derived from bovine or other animal sources.

This product is for further commercial manufacturing, laboratory or research use, and may be used as an excipient or a process solvent for pharmaceutical purposes. It is not intended for use as an active ingredient in drug manufacturing nor as a medical device or disinfectant. Appropriate/legal use of this product is the responsibility of the user.

Approved by: D. Simoncelli, Quality Control Chemist

Date of Approval: 03/10/2021