

## CERTIFICATE OF ANALYSIS

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by Intertek Global  
Certificate Number: CERT-0120633

|                           |   |
|---------------------------|---|
| Catalogue Number          | A669  |
| Lot Number                | 260758  |
| Description               | AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS   |
| CAS Number                | 1336-21-6,7732-18-5   |
| Quality Test/Release Date | 20/Jun/2026   |
| Expiration Date           | 30/Apr/2028   |
| Country of Origin         | United States   |
| Declaration of Origin     | Inorganic-non animal  |
| BSE/TSE                   | This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist. |

| Result Name               | Units     | Specifications                | Test Value               |
|---------------------------|-----------|-------------------------------|--------------------------|
| APPEARANCE                |           | REPORT                        | Clear, colorless liquid. |
| ALUMINUM                  | ppm       | <= 0.3                        | 0.001                    |
| ARSENIC AND ANTIMONY      | ppm       | <= 0.05                       | <0.0003                  |
| ASSAY                     | w/w %     | Inclusive Between 28.0 - 30.0 | 29.0                     |
| BORON (B)                 | ppm       | <= 0.1                        | 0.01                     |
| CALCIUM (Ca)              | ppm       | <= 0.3                        | 0.03                     |
| CARBON DIOXIDE            | %         | <= 0.002                      | <0.002                   |
| CHLORIDE                  | ppm       | <= 0.5                        | <0.5                     |
| CHROMIUM (Cr)             | ppm       | <= 0.2                        | 0.0002                   |
| COPPER (Cu)               | ppm       | <= 0.1                        | 0.0002                   |
| GOLD (Au)                 | ppm       | <= 0.3                        | <0.0005                  |
| HEAVY METALS BY ICP-OES   | ppm       | <= 0.5                        | 0.003                    |
| IRON (Fe)                 | ppm       | <= 0.1                        | 0.0009                   |
| LEAD (Pb)                 | ppm       | <= 0.2                        | <0.0001                  |
| MAGNESIUM (Mg)            | ppm       | <= 0.3                        | 0.004                    |
| MANGANESE (Mn)            | ppm       | <= 0.2                        | 0.0002                   |
| NICKEL (Ni)               | ppm       | <= 0.1                        | 0.0004                   |
| NITRATE (NO3)             | ppm       | <= 2                          | <2                       |
| PHOSPHATE (PO4)           | ppm       | <= 0.4                        | <0.4                     |
| POTASSIUM (K)             | ppm       | <= 0.3                        | 0.003                    |
| RESIDUE AFTER IGNITION    | ppm       | <= 3                          | <1                       |
| SODIUM (Na)               | ppm       | >= 0                          | 0.9                      |
| SUBSTANCES REDUCING KMNO4 | PASS/FAIL | = PASS TEST                   | PASS TEST                |
| SULFATE (SO4)             | ppm       | <= 2                          | <2                       |
| TIN (Sn)                  | ppm       | <= 0.3                        | 0.0001                   |
| TITANIUM (Ti)             | ppm       | <= 0.3                        | <0.0005                  |
| ZINC (Zn)                 | ppm       | <= 0.3                        | <0.005                   |

Additional Information This product is free from genetically modified substances and is gluten free.

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of the catalogue number listed above.



Ash Frey  
Supervisor, Quality Control

Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third-party data or information associated with the product. Products are for research use or further manufacturing. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

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