

## Certificate of Analysis

Date of Testing: 2022-08-20 10:34:47  
 Date of Next Testing: 2023-08-20 10:34:47  
 Product Name: **Ammonia solution**  
 CAS Number: 1336-21-6  
 Specifications & Purity: Analytical Reagent,25-28%  
 Lot #: H2212128  
 SKU #: **A112077**  
**Analysis: 103280**

| Parameter                                  | Limit Values                  | Result                        |
|--|-------------------------------|-------------------------------|
| Phosphate(PO4)                             | 0-0.0001 (%)                  | 0.00 %                        |
| Carbonate                                  | 0-0.001 (%)                   | 0.00 %                        |
| Sulfate(SO4 <sup>2-</sup> )                | 0-0.0002 (%)                  | 0.00 %                        |
| Potassium(K)                               | 0-0.001 (%)                   | 0.00 %                        |
| Magnesium(Mg)                              | 0-0.0001 (%)                  | 0.00 %                        |
| Evaporation Residue                        | 0-0.002 (%)                   | 0.00 %                        |
| Lead(Pb)                                   | 0-0.5 (ppm)                   | 0.35 ppm                      |
| Iron(Fe)                                   | 0-0.2 (ppm)                   | 0.17 ppm                      |
| Sodium(Na)                                 | 0-0.0005 (%)                  | 0.00 %                        |
| Calcium(Ca)                                | 0-0.0001 (%)                  | 0.00 %                        |
| Copper(Cu)                                 | 0-0.1 (ppm)                   | 0.07 ppm                      |
| Potassium permanganate reducing substances | 0-0.0008 (%)                  | 0.00 %                        |
| (S)Sulfide                                 | 0-0.00002 (%)                 | 0.00 %                        |
| Assay(NH <sub>3</sub> )                    | 25-28 (%)                     | 25.01 %                       |
| Chloride (Cl <sup>-</sup> )                | 0-0.5 (ppm)                   | 0.50 ppm                      |
| Appearance (A112077)                       | Colorless, transparent liquid | Colorless, transparent liquid |



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A handwritten signature in black ink that reads "John Su". The signature is written in a cursive, flowing style.

John Su  
QA & QC Manager