

## Certificate of Analysis

Date of Testing: 2025-02-22 09:46:02

Date of Next Testing: 2026-02-22 09:46:02

Product Name: **Ammonia solution**

CAS Number: 1336-21-6

Specifications & Purity: UltraPureChrom™, for LC-MS, ≥25% in H2O

Lot #: B2519321

SKU #: **A112084**

Version **1**

Analysis #: **475129**

| Parameter              | Limit Values | Result   |
|------------------------|--------------|----------|
| Sodium(Na)             | 0-0.01 (ppm) | 0.00 ppm |
| Beryllium(Be)          | 0-0.01 (ppm) | 0.00 ppm |
| (Pb)Lead               | 0-0.01 (ppm) | 0.00 ppm |
| Sulfate(SO42-)         | 0-1 (ppm)    | 0.01 ppm |
| Potassium(K)           | 0-0.01 (ppm) | 0.00 ppm |
| Platinum(Pt)           | 0-0.01 (ppm) | 0.00 ppm |
| Iron(Fe)               | 0-0.01 (ppm) | 0.00 ppm |
| Gallium(Ga)            | 0-0.01 (ppm) | 0.00 ppm |
| Barium(Ba)             | 0-0.01 (ppm) | 0.00 ppm |
| Cobalt(Co)             | 0-0.01 (ppm) | 0.00 ppm |
| Vanadium(V)            | 0-0.01 (ppm) | 0.00 ppm |
| Nickel(Ni)             | 0-0.01 (ppm) | 0.00 ppm |
| Boron(B)               | 0-0.01 (ppm) | 0.00 ppm |
| Evaporation Residue    | 0-0.001 (%)  | 0.00 %   |
| Cadmium(Cd)            | 0-0.01 (ppm) | 0.00 ppm |
| concentration (as NH3) | ≥25 (%)      | 28.94 %  |
| Chromium(Cr)           | 0-0.01 (ppm) | 0.00 ppm |
| Manganese(Mn)          | 0-0.01 (ppm) | 0.00 ppm |
| Phospate(PO4)          | 0-0.4 (ppm)  | 0.00 ppm |
| Bismuth(Bi)            | 0-0.01 (ppm) | 0.00 ppm |
| Calcium(Ca)            | 0-0.5 (ppm)  | 0.00 ppm |
| Zirconium(Zr)          | 0-0.01 (ppm) | 0.00 ppm |
| Titanium(Ti)           | 0-0.01 (ppm) | 0.00 ppm |
| Molybdenum(Mo)         | 0-0.01 (ppm) | 0.00 ppm |
| Stannum(Sn)            | 0-0.01 (ppm) | 0.00 ppm |
| Magnesium(Mg)          | 0-0.01 (ppm) | 0.00 ppm |

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| Parameter            | Limit Values          | Result                |
|----------------------|-----------------------|-----------------------|
| Lithium(Li)          | 0-0.01 (ppm)          | 0.00 ppm              |
| Zinc(Zn)             | 0-0.01 (ppm)          | 0.00 ppm              |
| Germanium (Ge)       | 0-0.01 (ppm)          | 0.00 ppm              |
| As, Sb (as As):      | 0-0.01 (ppm)          | 0.00 ppm              |
| Indium(In)           | 0-0.01 (ppm)          | 0.00 ppm              |
| Strontium(Sr)        | 0-0.01 (ppm)          | 0.00 ppm              |
| Copper(Cu)           | 0-0.01 (ppm)          | 0.00 ppm              |
| Silver(Ag)           | 0-0.01 (ppm)          | 0.00 ppm              |
| Aurum(Au)            | 0-0.01 (ppm)          | 0.00 ppm              |
| Chloride (Cl-)       | 0-0.2 (ppm)           | 0.01 ppm              |
| Appearance (A112084) | Colorless Liquid      | Colorless liquid      |
| Infrared spectrum    | Conforms to Structure | Conforms to Structure |
| Solvent(H2O)         | Conform               | Conform               |

A handwritten signature in black ink that reads "John Su".

John Su  
QA & QC Manager