

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2024-02-26 15:06:02
Date of Next Testing: 2025-02-25 15:06:02
Product Name: **Ammonia solution**
CAS Number: 1336-21-6
Specifications & Purity: for HPLC, $\geq 25\%$ in H₂O
Lot #: B2422311
SKU #: **A112080**
Analysis: 323921

| Parameter | Limit Values | Result |
|---|---------------------------|-------------------|
| Germanium (Ge) | 0-0.01 (ppm) | 0.00 ppm |
| Indium (In) | 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 |
| Lithium (Li) | 0-0.01 (ppm) | 0.00 ppm |
| Titanium (Ti) | 0-0.01 (ppm) | 0.00 ppm |
| Potassium (K) | 0-0.01 (ppm) | 0.00 ppm |
| Gallium (Ga) | 0-0.01 (ppm) | 0.00 ppm |
| Zirconium (Zr) | 0-0.01 (ppm) | 0.00 ppm |
| Manganese (Mn) | 0-0.01 (ppm) | 0.00 ppm |
| Evaporation Residue concentration (as NH ₃) | 0-0.001 (%) 25-100 (%) | 0.00 % 50.00 % |
| Copper (Cu) | 0-0.01 (ppm) | 0.00 ppm |
| Chromium (Cr) | 0-0.01 (ppm) | 0.00 ppm |
| As, Sb (as As) | 0-0.01 (ppm) | 0.00 ppm |
| Nickel (Ni) | 0-0.01 (ppm) | 0.00 ppm |
| Vanadium (V) | 0-0.01 (ppm) | 0.00 ppm |
| Strontium (Sr) | 0-0.01 (ppm) | 0.00 ppm |
| Boron (B) | 0-0.01 (ppm) | 0.00 ppm |
| Aurum (Au) | 0-0.01 (ppm) | 0.00 ppm |
| Chloride (Cl ⁻) | 0-0.2 (ppm) | 0.00 ppm |
| Cobalt (Co) | 0-0.01 (ppm) | 0.00 ppm |
| Zinc (Zn) | 0-0.01 (ppm) | 0.00 ppm |
| Molybdenum (Mo) | 0-0.01 (ppm) | 0.00 ppm |
| Silver (Ag) | 0-0.01 (ppm) | 0.00 ppm |
| Bismuth (Bi) | 0-0.01 (ppm) | 0.00 ppm |
| Iron (Fe) | 0-0.01 (ppm) | 0.00 ppm |

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

| Parameter | Limit Values | Result |
|----------------------|-----------------------|-----------------------|
| Platinum(Pt) | 0-0.01 (ppm) | 0.00 ppm |
| Calcium(Ca) | 0-0.5 (ppm) | 0.00 ppm |
| Sulfate(SO42-) | 0-1 (ppm) | 0.00 ppm |
| Cadmium(Cd) | 0-0.01 (ppm) | 0.00 ppm |
| Sodium(Na) | 0-0.01 (ppm) | 0.00 ppm |
| (Pb)Lead | 0-0.01 (ppm) | 0.00 ppm |
| Beryllium(Be) | 0-0.01 (ppm) | 0.00 ppm |
| Appearance (A112080) | Colorless Liquid | Colorless liquid |
| Infrared spectrum | Conforms to Structure | Conforms to Structure |

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

John Su
QA & QC Manager