

Certificate of Analysis

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|--------------------------|---|
| Date of Testing: | 2024-12-14 09:35:07 |
| Date of Next Testing: | 2025-12-14 09:35:07 |
| Product Name: | Ammonia solution |
| CAS Number: | 1336-21-6 |
| Specifications & Purity: | UltraPureChrom™, for LC-MS, ≥25% in H2O |
| Lot #: | L2412267 |
| SKU # | A112084 |
| Version | 1 |
| Analysis #: | 449474 |

| 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) | 0.00 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 (%) | 28.89 % |
| 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