

## Certificate of Analysis

|                          |                               |
|--------------------------|-------------------------------|
| Date of Testing:         | 2024-04-01 17:08:49           |
| Date of Next Testing:    | 2026-03-22 17:08:49           |
| Product Name:            | <b>Ammonium ceric nitrate</b> |
| CAS Number:              | 16774-21-3                    |
| Specifications & Purity: | Analytical Reagent,99.0%      |
| Lot #:                   | C2428246                      |
| SKU #                    | <b>A105050</b>                |
| <b>Analysis:</b>         | <b>340134</b>                 |
| Storage Temperature:     | Argon charged                 |

| Parameter  | Limit Values  | Result  |
|--|---|---|
| Cobalt(Co)   | 0-5 (ppm)   | 0.36 ppm  |
| Calcium(Ca)  | 0-10 (ppm)  | 8.60 ppm  |
| Chromium(Cr)   | 0-5 (ppm)   | 1.99 ppm  |
| Manganese(Mn)  | 0-5 (ppm)   | 3.00 ppm  |
| Potassium(K)   | 0-10 (ppm)  | 6.00 ppm  |
| Insoluble in dilute sulfuric acid                      | 0-0.05 (%)  | 0.01 %  |
| Zinc(Zn)   | 0-5 (ppm)   | 1.87 ppm  |
| Chloride (Cl-)   | 0-10 (ppm)  | 1.00 ppm  |
| Copper(Cu)   | 0-5 (ppm)   | 0.10 ppm  |
| Magnesium(Mg)  | 0-20 (ppb)  | 2.00 ppb  |
| Lead(Pb)   | 0-5 (ppm)   | 2.08 ppm  |
| Ce By Titration with Dichromate                        | 25-26.1 (%)   | 25.59 %   |
| Cadmium(Cd)  | 0-5 (ppm)   | 0.99 ppm  |
| Nickel(Ni)   | 0-5 (ppm)   | 2.31 ppm  |
| Iron(Fe)   | 0-50 (ppm)  | 18.00 ppm   |
| Phosphate(PO4)   | 0-200 (ppm)   | 10.00 ppm   |
| Purity(redox titration)                                | 98.5-101 (%)  | 100.00 %  |
| Sodium(Na)   | 0-10 (ppm)  | 5.00 ppm  |
| Appearance (A105050)                                   | Light Orange to Very Dark Orange<br>Powder or Crystal | Light Orange to Very Dark Orange<br>Powder or Crystal |
| Solubility in H2O , Yellow clear<br>solution(50 mg/mL) | pass  | Pass  |
| X-Ray Diffraction                                      | Conforms to Structure                                 | Conforms to Structure                                 |



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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