

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2023-05-11 09:33:17
Date of Next Testing: 2027-05-10 09:33:17
Product Name: **1,10-Phenanthroline monohydrochloride monohydrate**
CAS Number: 3829-86-5
Specifications & Purity: reagent grade,97.0 %
Lot #: D2324171
SKU #: **P109272**
Analysis: **222640**

| Parameter | Limit Values | Result |
|--|---|---|
| Sulfate Ash | 0-0.1 (%) | 0.00 % |
| Water by Karl Fischer | 0-8.5 (%) | 7.85 % |
| Melting point | 224-227 (°C) | 226.18000 °C |
| Purity(HPLC area) | 97-100 (%) | 99.75 % |
| Appearance (P109272) | white to off-white powder, crystals and/or chunks | white to off-white powder, crystals and/or chunks |
| Solubility in H ₂ O , 0.1 g/mL, transparent | pass | Pass |
| Proton NMR spectrum | Conforms to Structure | Conforms to Structure |



John Su
QA & QC Manager