

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2024-12-05 18:47:17  
 Date of Next Testing: 2028-12-04 18:47:17  
 Product Name: **4,5-Imidazoledicarboxylic acid**  
 CAS Number: 570-22-9  
 Specifications & Purity:  $\geq 97\%$   
 Lot #: L2403625  
 SKU #: **I107066**  
 Version: **0**  
 Analysis #: **439202**  
 Storage Temperature: Room temperature

| Parameter                      | Limit Values                                 | Result                                       |
|--------------------------------|----------------------------------------------|----------------------------------------------|
| Nitrogen by Elemental Analysis | 17.3-18.6 (%)                                | 17.83100 %                                   |
| Purity(HPLC)                   | 97-100 (%)                                   | 98.68300 %                                   |
| Carbon by Elemental Analysis   | 37.1-39.8 (%)                                | 38.19500 %                                   |
| Appearance (I107066)           | White to Off-White to Tan Powder or Crystals | White to Off-White to Tan Powder or Crystals |
| Solubility in NaOH solution    | almost transparency                          | almost transparency                          |
| Proton NMR spectrum            | Conforms to Structure                        | Conforms to Structure                        |



John Su  
QA & QC Manager