

## Certificate of Analysis

Date of Testing: 2022-11-01 18:42:50  
Date of Next Testing: 2026-10-31 18:42:50  
Product Name: **4-Quinolinecarboxylic acid**  
CAS Number: 486-74-8  
Specifications & Purity: 98%  
Lot #: J2229516  
SKU #: **Q123917**  
**Analysis:** **150708**  
Storage Temperature: Argon charged

| Parameter                        | Limit Values                             | Result                                   |
|----------------------------------|------------------------------------------|------------------------------------------|
| Purity(Neutralization titration) | 97.5-102.5 (%)                           | 99.99%                                   |
| Purity(HPLC)                     | 98-100 (%)                               | 99.59000%                                |
| Appearance (Q123917)             | White to Light Yellow Powder or Crystals | White to Light Yellow Powder or Crystals |
| Proton NMR spectrum              | Conforms to Structure                    | Conforms to Structure                    |



John Su  
QA & QC Manager