

## Certificate of Analysis

Date of Testing: 2024-11-23 16:43:54  
Date of Next Testing: 2028-11-22 16:43:54  
Product Name: **1,10-Phenanthroline Monohydrate**  
CAS Number: 5144-89-8  
Specifications & Purity: AR, ≥98%  
Lot #: K2418376  
SKU #: **P104932**  
Version: **0**  
Analysis #: **429166**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
Carbon by Elemental Analysis	71.2-74.2 (%)	72.47%
Water by Karl Fischer	0-11.1 (%)	9.59%
Nitrogen by Elemental Analysis	13.8-14.4 (%)	14.15%
Purity(HPLC)	98-100 (%)	98.06700%
Appearance (P104932)	White to Off-White Powder or Solid	White to Off-White Powder or Solid
Proton NMR spectrum	Conforms to Structure	Conforms to Structure
Solubility in EtOH , Colorless to Light Yellow Clear to Hazy(100mg/ml)	pass	Pass



John Su  
QA & QC Manager