

## Certificate of Analysis

Date of Testing: 2025-03-14 15:57:25

Date of Next Testing: 2029-03-13 15:57:25

Product Name: **1,10-Phenanthroline-2,9-dicarboxylic acid hydrate**

CAS Number: 57709-61-2

Specifications & Purity:  $\geq 98\%$

Lot #: C2511145

SKU #: **P122853**

Version: **0**

Analysis #: **093411**

Storage Temperature: Store at 2-8°C

| Parameter                                     | Limit Values                             | Result                                   |
|-----------------------------------------------|------------------------------------------|------------------------------------------|
| Carbon by Elemental Analysis(anhydrous)       | 60.7-62.9 (%)                            | 60.90 %                                  |
| Nitrogen by Elemental Analysis<br>(anhydrous) | 9.6-10.9 (%)                             | 10.23 %                                  |
| Purity(HPLC)                                  | 98-100 (%)                               | 98.76700 %                               |
| Appearance (P122853)                          | Yellow to Orange Powder and/or<br>Chunks | Yellow to Orange Powder and/or<br>Chunks |
| Infrared spectrum                             | Conforms to Structure                    | Conforms to Structure                    |
| Proton NMR spectrum                           | Conforms to Structure                    | Conforms to Structure                    |



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