

## CERTIFICATE OF ANALYSIS

**PRODUCT NAME : 1,10-PHENANTHROLINE AR MONOHYDRATE  
REDOX INDICATOR**

**CAS No : 5144-89-8**  
**Mol. Formula : C<sub>12</sub>H<sub>8</sub>N<sub>2</sub>.H<sub>2</sub>O**  
**Mol. WT : 198.23**  
**Date of analysis : 11/03/24**

**Product code : 24640**  
**Batch No. : MCR-30571**  
**Mfd. : March 2024**  
**Exp. : Feb. 2029**

| S.R. | Test                            | Specification                                                                                              | Observation          |
|------|---------------------------------|------------------------------------------------------------------------------------------------------------|----------------------|
| 1    | Description                     | White to off white or beige crystals or needles or crystalline powder, becoming cream coloured on storage. | Off White needles.   |
| 2    | Assay                           | 99.5% min                                                                                                  | 99.65%               |
| 3    | Water                           | 8.8 – 9.5%                                                                                                 | 9.27%                |
| 4    | Sensitivity as reagent for iron | 1:10,000,000 min.                                                                                          | >1:10,000,000        |
| 5    | Sensitivity as redox indicator  | passes test                                                                                                | passes test          |
| 6    | Melting point                   | 100 -104 <sup>0</sup> C                                                                                    | 103.7 <sup>0</sup> C |
| 7    | Sulphated ash                   | 0.05% max                                                                                                  | 0.03%                |

**REMARK:** THE PRODUCT COMPLIES WITH THE ABOVE SPECIFICATIONS

**[Tested By]**

**[QC Incharge]**

**CHEMIST  
(Jyoti)**

**HEAD-QUALITY ASSURANCE  
(G.G.Salian)**

**Note:** Computer generated image requires no sign.

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**Works : Unit I - Plot No. B/9, Unit II - Plot No. B/11, Badlapur M.I.D.C., Opp. Shobhavat Textile Co., Kulgaon, Badlapur (E), Dist.-Thane-421 503.**

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