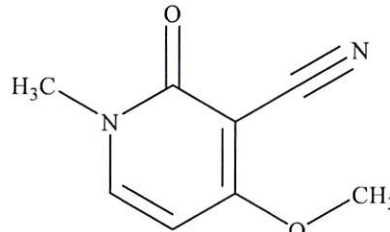


Certificate of Analysis

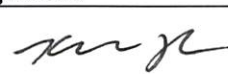

Certificate No.: 20260615501

Date: June 15, 2026

Retest date: June 11, 2029

| | | |
|------------------------------|---|--|
| Compound Name: | Ricinine | |
| Synonyms: | 4-methoxy-1-methyl-2-oxo-1,2-dihydronicotinonitrile | |
| TLC Catalogue Number: | R-184001 |  |
| CAS Number: | 524-40-3 | |
| Alternate CAS Number: | N/A | |
| Molecular Weight: | 164.16 | |
| Molecular Formula: | C ₈ H ₈ N ₂ O ₂ | |
| Source: | TLC Pharmaceutical Standards | |
| Source Lot No.: | C0268-077A3 | |
| Storage Conditions: | Store at 2-8 °C | |
| Solubility: | DMSO | |

| Test Description | Specifications | Results |
|--------------------------------|--------------------------|-----------------|
| Visual Description | White to off-white solid | Conforms |
| Identification | | |
| IR | Conforms to structure | Conforms |
| MS | Conforms to structure | Conforms |
| ¹H NMR | Conforms to structure | Conforms |
| Purity (HPLC) | Not less than 95.0% | 100.0% |
| Impurity (HPLC) | N/A | |
| Water Content (KF) | N/A | 0.4% |
| Residue (TGA at 800 °C) | N/A | 0.0% |
| Residual Solvents (NMR) | 0.3% methanol | |
| Assay (%) | Not less than 90.0% | 99.3% |
| Recommendation: | Release. | |

| Name | Department | Signature | Date |
|---------------------------|-------------------|--|------------|
| Reviewed and approved by: | Quality Control |  | 06/15/2026 |
| Approved by: | Quality Assurance |  | 06/15/2026 |

Attachments: Peak Attribution Table, Assay Calculation, HPLC, IR, MS, NMR and TGA spectra.