

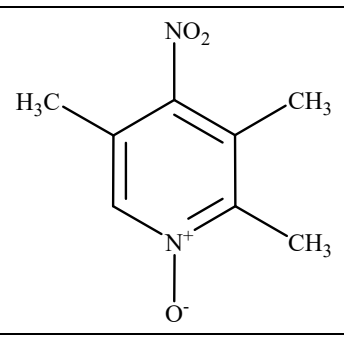
Certificate of Analysis

Certificate No.: 20190604012

Date: June 4, 2019

Retest date: June 3, 2022

Compound Name: Omeprazole Related Compound 5	
Synonyms:	2,3,5-trimethyl-4-nitropyridine 1-oxide
TLC Catalogue Number:	O-0248
CAS Number:	86604-79-7
Molecular Weight:	182.18
Molecular Formula:	C ₈ H ₁₀ N ₂ O ₃
Source:	TLC Pharmaceutical Standards
Source Lot No.:	2223-004A3
Storage Conditions:	Hygroscopic, store at 2-8 °C.
Solubility:	Methanol



The chemical structure shows a pyridine ring with a nitro group (NO₂) at the 4-position and three methyl groups (CH₃) at the 2, 3, and 5 positions. The nitrogen atom at the 1-position is positively charged (N⁺) and has an oxygen atom (O⁻) bonded to it, forming a zwitterion.

Test Description	Specifications	Results
Visual Description	Pale yellow solid	Conforms
Identification		
IR	Conforms to structure	Conforms
MS	Conforms to structure	Conforms
¹ H NMR	Conforms to structure	Conforms
Purity (HPLC)	Not less than 95.0%	99.9%
Impurity (HPLC)	N/A	
Water Content (KF)	N/A	1.3%
Residual Solvents (NMR)	0.2% <i>n</i> -hexane	
Assay (%)	Not less than 90.0%	98.4%
Recommendation:	Released.	

Name	Department	Signature	Date
Reviewed and approved by:	Analytical Services		
Approved by:	Quality Assurance		

Attachments: HPLC, IR, MS and NMR spectra.