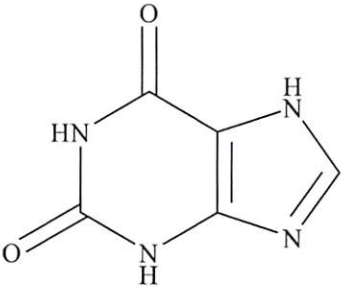


## Certificate of Analysis



Certificate No.: **20250108003**

Date: January 8, 2025

Retest date: January 3, 2028

<b>Compound Name:</b>	<b>Xanthine</b>	
<b>Synonyms:</b>	3,7-dihydro-1 <i>H</i> -purine-2,6-dione	
<b>TLC Catalogue Number:</b>	X-005001	
<b>CAS Number:</b>	69-89-6	
<b>Molecular Weight:</b>	152.11	
<b>Molecular Formula:</b>	C <sub>5</sub> H <sub>4</sub> N <sub>4</sub> O <sub>2</sub>	
<b>Source:</b>	TLC Pharmaceutical Standards	
<b>Source Lot No.:</b>	6645-011A9	
<b>Storage Conditions:</b>	Store at 2-8 °C	
<b>Solubility:</b>	Alkaline solution	

Test Description	Specifications	Results
<b>Visual Description</b>	White to off-white solid	<b>Conforms</b>
<b>Identification</b>		
IR	Conforms to structure	<b>Conforms</b>
MS	Conforms to structure	<b>Conforms</b>
<sup>1</sup> H NMR	Conforms to structure	<b>Conforms</b>
<b>Purity (HPLC)</b>	Not less than 95.0%	<b>99.9%</b>
<b>Impurity (HPLC)</b>	N/A	
<b>Residue (TGA at 900 °C)</b>	N/A	<b>0.2%</b>
<b>Residual Solvents (NMR)</b>	No residual solvent	
<b>Assay (qNMR)</b>	Not less than 90.0%	<b>96.9%</b>
<b>Recommendation:</b>	<b>Release.</b>	

Name	Department	Signature	Date
Reviewed and approved by:	Quality Control		01/10/2025
Approved by:	Quality Assurance		01/10/2025

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