

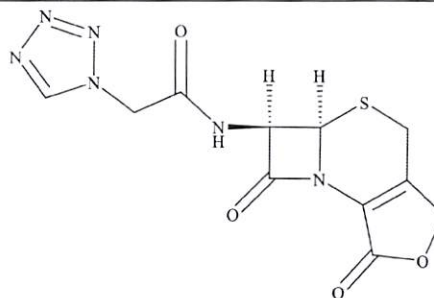
## Certificate of Analysis

Certificate No.: 20230629012

Date: June 29, 2023

Retest date: June 25, 2026

<b>Compound Name:</b> Cefazolin EP Impurity G	
<b>Synonyms:</b>	<i>N</i> -((5a <i>R</i> ,6 <i>R</i> )-1,7-dioxo-1,4,5a,6-tetrahydro-3 <i>H</i> ,7 <i>H</i> -azeto[2,1- <i>b</i> ]furo[3,4- <i>d</i> ][1,3]thiazin-6-yl)-2-(1 <i>H</i> -tetrazol-1-yl)acetamide
<b>TLC Catalogue Number:</b>	C-968
<b>CAS Number:</b>	1172998-53-6
<b>Molecular Weight:</b>	322.30
<b>Molecular Formula:</b>	C <sub>11</sub> H <sub>10</sub> N <sub>6</sub> O <sub>4</sub> S
<b>Source:</b>	TLC Pharmaceutical Standards
<b>Source Lot No.:</b>	5712-015A3
<b>Storage Conditions:</b>	Store at 2-8 °C
<b>Solubility:</b>	Methanol, DMSO



Test Description	Specifications	Results
<b>Visual Description</b>	Pale yellow 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>99.3%</b>
<b>Impurity (HPLC)</b>	RT 9.73, 0.19%; RT 10.51, 0.12%; RT 11.29, 0.12%	
<b>Water Content (KF)</b>	N/A	<b>0.9%</b>
<b>Optical Rotation</b>	N/A	[α] <sub>D</sub> <sup>25.0</sup> (c=0.40, DMSO): <b>+215.5°</b>
<b>Residual Solvents (NMR)</b>	0.8% acetonitrile and 0.2% ethyl acetate	
<b>Assay (%)</b>	Not less than 90.0%	<b>97.4%</b>
<b>Recommendation:</b>	<b>Release.</b>	

Name	Department	Signature	Date
Reviewed and approved by:	Quality Control		06/30/2023
Approved by:	Quality Assurance		06/30/2023

**Attachments:** HPLC, IR, MS and NMR spectra.