

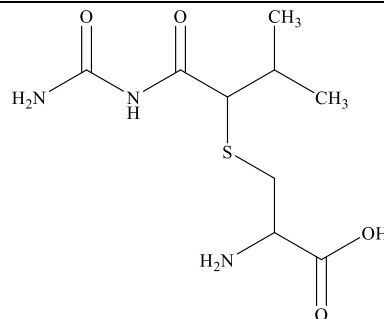
Certificate of Analysis

Certificate No.: 20200611025

Date: June 11, 2020

Retest date: June 4, 2023

Compound Name: Bromisoval Impurity 3	
Synonyms:	S-(3-methyl-1-oxo-1-ureidobutan-2-yl)cysteine
TLC Catalogue Number:	B-193004
CAS Number:	N/A
Molecular Weight:	263.31
Molecular Formula:	C ₉ H ₁₇ N ₃ O ₄ S
Source:	TLC Pharmaceutical Standards
Source Lot No.:	3860-035A6
Storage Conditions:	Store at 2-8 °C
Solubility:	Water



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
Elemental Analysis	Conforms to structure	Conforms
Purity (HPLC)	Not less than 95.0%	99.1%
Impurity (HPLC)	RT 14.13, 0.31%; RT 17.69, 0.13%; RT 26.91, 0.18%	
Water Content (KF)	N/A	0.9%
Residual Solvents (NMR)	No residual solvent	
Assay (%)	Not less than 90.0%	98.2%
Recommendation:	Released.	

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

Attachments: HPLC, IR, MS and NMR spectra.