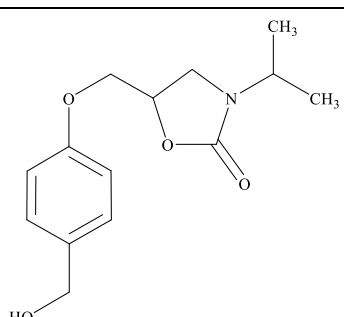


Certificate of Analysis

Certificate No.: 20210426007

Date: April 26, 2021

Retest date: April 26, 2024

Compound Name:	Bisoprolol EP Impurity U	
Synonyms:	5-((4-(hydroxymethyl)phenoxy)methyl)-3-isopropylloxazolidin-2-one	
TLC Catalogue Number:	B-0924	
CAS Number:	1071765-44-0	
Molecular Weight:	265.31	
Molecular Formula:	C ₁₄ H ₁₉ NO ₄	
Source:	TLC Pharmaceutical Standards	
Source Lot No.:	2855-060A2	
Storage Conditions:	Store at 2-8 °C	
Solubility:	Methanol, 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%	99.0%
Impurity (HPLC)	RT 18.04, 0.59%; RT 24.83, 0.26%	
Water Content (KF)	N/A	0.2%
Residual Solvents (NMR)	No residual solvent	
Assay (%)	Not less than 90.0%	98.8%
Recommendation:	Released.	

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

Attachments: HPLC, IR, MS and NMR spectra.