Certificate of Analysis

Reference Material & Standard

Product Name:	Bisoprolol EP Impurity S	**Catalogue Number:**	C4X-124719
Synonyms:	N/A	**Lot Number:**	0511-RC-0036
CAS Number:	123-08-0	**Expiry Date:**	Jun 14, 2030
Molecular Formula:	$C_7H_6O_2$	**Storage:**	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	122.12	**Shipping Condition:**	Shipping at Room Temperature

Chemical Structure:

Test Items	Method	Results
Appearance	Visual inspection	Off-White Solid
Identification	LCMS&IR&UV&CNMR&HNMR	Confirmed
Purity	HPLC	99.8982%
Loss on Drying	TGA	0.3954%
Assay		99.5%

Comment:

The calculation of the mass balance method follows the formula (calculated on the non-dried basis):
*Assay (%) = (100%-Loss on Drying) * Purity HPLC (%) /100%*
Loss on Drying is considered as absolute effect, HPLC purity is considered as relative effect.

Signature:

Prepared by: Koi — Date: Jun 15, 2026

Reviewed by: Hinlam — Date: Jun 15, 2026

Approved by General Manager: David — Date: Jun 15, 2026

CATO Research Chemicals Inc.