BIOBUFFER SOLUTIONS

100 Majestic Way, Bangor, PA 18013 / www.biospectra.us

Effective Date:	03-Nov-2026	03-Nov-2029	: Date of Next Review
Prepared By:	Amy Yencho	BSI-COA-0347 v.1.0	: Supersedes
QA/QC Approval:	Brianna Gardner	Carissa Albert	: Management Approval
Reason for Revision:	See Revision History in MasterControl.		

CERTIFICATE OF ANALYSIS

TRIS HYDROCHLORIDE

BIO QUALIFIED GRADE / THCL-6201

LOT: THCL-L02-1126-0091

$NH_2C(CH_2OH)_3 \cdot HCl$ ▲ F.W. 157.60 g/mol. ▲ CAS#: 1185-53-1

Manufacturing Date: 11/19/26 Retest Date: 11/30/28

Packaging Site: 100 Majestic Way, Bangor PA, 18013

ANALYSIS		SPECIFICATION	TEST RESULT
Absorbance (1M)	260 nm	< = 0.06 a.u.	0.03 a.u.
	280 nm	< = 0.05 a.u.	0.03 a.u.
	400 nm	< = 0.01 a.u.	0.01 a.u.
Appearance and Color		White Crystalline Powder	Passes Test
Assay, Dried Basis (NaOH Titration)		99.5 – 101.0 %	99.8 %
Heavy Metals (Pb)		< = 10 ppm	<0.005 ppm
Identification, IR		Conforms to Reference Standard	Passes Test
Melting Range		150 - 154°C	150-152 °C
pH (1%)		4.2 – 5.0	4.8
Residual Solvents	Methanol	< = 300 ppm	<300 ppm
	Nitromethane	< = 50 ppm	<50 ppm
Residue on Ignition		< = 0.1 %	<0.1 %
Solubility (1M)		Clear, Colorless Solution	Passes Test
Water, KF		< = 0.5 %	0.4 %

COUNTRY OF ORIGIN: China

TEST METHOD REFERENCE: BSI-ATM-0002

MANUFACTURING DATE: The manufacturing date is representative of the final packaging date at BioSpectra.

INTENDED USE: Material represented by this Certificate of Analysis is suitable for use as a process chemical. It is manufactured in accordance with an ISO Certified Quality Management System. The material represented by this Certificate of Analysis is not suitable to be used as an Active Pharmaceutical Ingredient, Drug, Drug Product or Household Item.

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Prepared by: Jason Coughlin Date: 11/20/26 Job Title: QA Supervisor

Reviewed by: David McCall Date: 11/20/26 Job Title: QA Tech III

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