

BIOBUFFER SOLUTIONS

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

Effective Date:	13-May-2025	13-May-2028	: Date of Next Review
Prepared By:	Amy Yenko	Not Applicable	: Supersedes
QA/QC Approval:	Krista Rehrig	Carissa Albert	: Management Approval
Reason for Revision:	See Revision History in MasterControl.		

CERTIFICATE OF ANALYSIS

TRIS

ACS, BIOTECH

BIO ULTRA GRADE / TRIS-5222

LOT: TRIS-L02-0725-0188

$\text{NH}_2\text{C}(\text{CH}_2\text{OH})_3$ ▲ F.W. 121.14 g/mol ▲ CAS#: 77-86-1

Manufacturing Date: 05/08/24 Retest Date: 05/31/26

Packaging Site: 100 Majestic Way, Bangor PA, 18013

ANALYSIS	SPECIFICATION	TEST RESULT
Absorbance (40%)	290nm <= 0.2 a.u.	0.060 a.u.
Appearance and Color	White Crystalline Powder	White Crystalline Powder
Assay, Dried Basis	99.8-100.1%	99.85 %
Heavy Metals (as Pb)	<= 5 ppm	<= 5 ppm
Insoluble Matter	<= 0.005%	<= 0.005 %
Iron (Fe)	<= 5 ppm	<= 5 ppm
pH (5%)	10.0 – 11.5	10.73
Water, KF	<= 1.0 %	0.12 %

INTENDED USE: Material represented by this Certificate of Analysis is suitable for use as a process chemical. The material represented by this Certificate of Analysis is not suitable to be used as an Excipient, Active Pharmaceutical Ingredient, Drug, Drug Product or Household Item.

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

Prepared by: Amel McCall Date: 7/21/25 Job Title: QA Tech III

Reviewed by: Car Albert Date: 7/21/25 Job Title: Senior Quality Manager