

BIOBUFFER SOLUTIONS

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

Effective Date:	24-Jun-2025	24-Jun-2028	: Date of Next Review
Prepared By:	Taylor Yurick	BSI-COA-0067 v.6.3	: Supersedes
QA/QC Approval:	Jessica DeMaio	Hannah Kuchmas	: Management Approval
Reason for Revision:	See Revision History in MasterControl.		

CERTIFICATE OF ANALYSIS

HEPES

BIO ULTRA GRADE / HEPE-5201-26

LOT: HEPE-L02-0925-0079

$C_8H_{18}N_2O_4S$ ^ F.W. 238.30 g/mol. ^ CAS# 7365-45-9
 Manufacturing Date: 09/05/25 Retest Date: 09/30/27
 Packaging Site: 100 Majestic Way, Bangor PA, 18013

ANALYSIS	SPECIFICATION	TEST RESULT	
Absorbance (0.1M)	280 nm	0.0500 a.u. max.	0.0024 a.u.
	260 nm	0.0500 a.u. max.	0.0036 a.u.
Appearance and Color	White / Powder	White / Powder	
Ash (Sulfurated)	0.2% max.	< 0.2%	
Assay, Dried Basis	99.0% min.	100.5%	
Enzymes	DNase	None Detected	None Detected
	RNase	None Detected	None Detected
	Protease	None Detected	None Detected
Moisture	1.0% max.	0.03%	
pH (5% Soln)	5.0 – 6.5	5.3	
pK _a	Report from MFG CoA		7.50
	Arsenic (As)	0.00005% max.	< 0.00005%
	Trace Metals Iron (Fe)	0.0005% max.	< 0.0005%
	Lead (Pb)	0.0005% max.	< 0.0005%

TEST METHOD REFERENCE: DCN: BSI-ATM-0070

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. 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.

Prepared By: David McCall Date: 9/12/25 Title: QA Tech III

Reviewed By: Joe Bishop Date: 9/12/25 Title: QA Supervisor

The information contained herein is the confidential property of BioSpectra. The recipient is responsible for its safe-keeping, and the prevention of unauthorized appropriation, use, disclosure and copying.