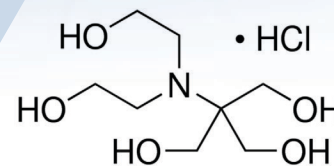


**BIS-TRIS HCl, LBLE, GMP Excipient Grade**  
Low Bioburden, Low Endotoxin, GMP Manufactured

**INTENDED FOR USE AS AN EXCIPIENT**

BIS-TRIS HCl, is the chlorinated version of BIS-TRIS, a zwitterionic biological buffer often used in biological pharmaceutical manufacturing for extraction, separation and purification, as well as an intermediate in synthetic reactions and as a process aid in peptide synthesis.

**Lead Time: If Stock: 1-month/ No Stock: 3-months**  
**Minimum Order Quantity: If Stock-50kg/ No Stock-150kg**



**CAS #:** 124763-51-5

**Molecular Formula:**

$C_8H_{19}NO_5 \cdot HCl$

**F.W.:** 245.70 g/mol

**pH 1% @ 25°C:** 3.8 - 4.4

**BIO EXCIPIENT GRADE | Product Code: BTHY-3250**


$C_8H_{19}NO_5 \cdot HCl \cdot F.W.:$  245.70 g/mol • CAS# 124763-51-5



These are general specifications. BioSpectra will customize our products to meet your quality based requirements.

ANALYSIS		SPECIFICATIONS
Absorbance (0.1M)	260 nm 290 nm	0.05 a.u. maximum 0.03 a.u. maximum
Appearance and Color		White Crystals
Assay (Titration)		99.0% minimum
Bioburden		≤ 100 CFU/g
Endotoxin		≤ 50 CFU/g
Enzymes	DNase Protease RNase	None Detected None Detected None Detected
Identification (IR)		Passes Test
pH (1.0% @ 25°C)		3.8 – 4.4
Solubility (0.1M)		Passes Test
Water Content (KF)		1.0% maximum



 Key Compliance Attributes of BioSpectra Grades	Bio Excipient Grade ICH-Q7 Compliant Manufactured
Suitable for Research and Diagnostic	✓
Each Batch 100% Analyzed	✓
Management of Change	✓
Validated Analytical Methods	✓
Compendial Testing	✓
Trace Metals Analyzed	✓
Stability Testing Program	✓
BioSpectra Supply Chain Audit Trail	✓
Product Origin Statement	✓
Customer Quality Audits	✓
Validated Manufacturing Process	✓
US Manufactured at BioSpectra	✓
IPEC cGMP Compliant Manufactured	✓
Customized Additional Specifications	✓
Multi-Compendial Testing	✓
Low Bioburden Low Endotoxin (LBLE)	✓
Enzyme Tested	✓
Suitable for use as Excipient	✓
Microbial / Endotoxin Tested	✓
Manufactured in FDA Registered Facility	✓
Customized Manufacturing Schedule	✓
Custom Regulatory Packet	✓
Accelerated Stability	✓
Video Conference access to BioSpectra Sites	✓
Complete access to Product Traceability	✓
Access to Supply Chain Information	✓
ICH-Q7 Qualified Utilities	✓
ICH-Q7 Compliant Manufactured	✓
Type IV Drug Master File	✓

✓ indicates an attribute or level of compliance which is granted or available based on the purchase of the product grade.

**Bio Excipient Grade:** Intended for use as ICH-Q7 Compliant Excipient

**LBLE:** LBLE applies when product specifications include requirements for Bioburden Testing (TAMC/TYMC and/or Endotoxin).  
 LBLE stands for Low Bioburden, Low Endotoxin non-sterile products suitable for further use in parenteral manufacturing and other sterile applications.

### General Product Description:

- The manufacturing of Bis-Tris HCl BTHY-3250 is performed at BioSpectra’s Bangor, PA facility and is conducted in a dedicated processing area using only dedicated equipment.
- Bis-Tris HCl is a White Crystalline product
- Molecular Formula:  $C_8H_{19}NO_5 \cdot HCl$
- Molecular Weight: 245.70 g/mol
- CAS Number: 124763-51-5
- There are no known major food allergens (as defined by FDA and WHO) in the manufacture of this product.
- Biospectra certifies that all Bis-Tris HCl BTHY-3250 manufactured at BioSpectra and its raw materials are not derived from or come in contact with animal parts, products and/or byproducts. Bis-Tris HCl manufactured at BioSpectra and any raw materials used in the manufacture of Bis-Tris HCl at BioSpectra are not subject to genetic modification.
- Synonyms: 2,2-Bis(hydroxymethyl)-2,2',2"-nitrilotriethanol, BIS-TRIS hydrochloride, Bis(2-hydroxyethyl)aminotris(hydroxymethyl)methane, 2-Bis(2-hydroxyethyl)amino-2-(hydroxymethyl)-1,3-propanediol

### GMP Compliance:

Bio Excipient Grade Bis-Tris HCl BTHY-3250 is suitable for use as an excipient. It is manufactured in accordance with the ICH-Q7 Good Manufacturing Practice Guide. This grade of Bis-Tris HCl is not suitable to be used as an Active Pharmaceutical Ingredient, Drug Product or Household Item.

### Retest Date:

The recommended retest period for Bis-Tris HCl is two years from the date of manufacture.

### Storage and Shipping Conditions:

Keep container tightly closed in a dry and well-ventilated place.

### Package Sizes:

10kg, 25 kg and 50 kg pails.