

## TRIS (TROMETHAMINE) BIOTECH HIGH ASSAY, USP, GMP TRIS-4223

# Intended for Use in Biopharmaceutical & Biotechnological Applications and Products

Tris (Tromethamine) is a high purity, GMP Reagent Grade, where high purity, high assay, GMP Tromethamine is required. Tris is considered a "Good's" buffer because it has a low UV absorptivity, minimum reactivity, stable pH and is soluble in water.

#### **SPECIFICATIONS**

Analysis		Specifications
Trace Metals	Aluminum (AL)	≤ 5ppm
	Arsenic (As)	<u>≤</u> 1.6ppm
	Barium (Ba)	≤ 5ppm
	Bismuth (Bi)	≤ 5ppm
	Cadmium (Cd)	≤ 5ppm
	Calcium (Ca	<u>≤</u> 1ppm
	Chromium (Cr)	≤ 5ppm
	Cobalt (Co)	≤ 5ppm
	Copper (Cu)	<u>≤</u> 1ppm
	Iron (Fe)	<u>≤</u> 1ppm
	Lead (Pb)	<u>≤</u> 1ppm
	Lithium (Li)	≤ 5ppm
	Magnesium (Mg)	≤ 5ppm
	Manganese (Mn)	<u>≤</u> 1ppm
	Molybdenum (Mo)	≤ 5ppm
	Nickel (Ni)	≤ 5ppm
	Potassium (K)	_ 11
	Sodium (Na)	≤ 50ppm
	Zinc (Zn)	≤ 1 ppm
Enzymes	DNase	None
	Protease	None
	RNase	None
Absorbance (10%)	260nm	0.03 a.u. max.
	280nm	0.02 a.u. max.
	430nm	0.004 a.u. max.
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Bulk cGMP Fine Chemical Manufacturer

## **GMP** Biotech Product

11 1 (400/)	200	0.20
Absorbance (40%)	290nm	0.20 a.u. max.
	260nm	0.06 a.u. max.
Absorbance (1M)	280nm	0.06 a.u. max.
	430nm	0.01 a.u. max.
APHA Color, 20% Solution		20 APHA max.
Assay (Ultrapure, Dried basis)		99.9% min.
Endotoxins		≤ 2.5 EU/g
Heavy Metals (as Pb)		1 ppm max.
Insoluble Matter		0.005% max.
Karl Fischer Water		1.0% max.
Loss on Drying		0.3% max.
Melting Point		168 – 172°C
Microbial Content	TAMC	≤ 100 CFU/g
	TYMC	≤ 100 CFU/g
pH (5%)		10.0 - 11.5
Related Substances		0.1% max.
Residue on Ignition		0.05% max.
Chloride		≤ 20 ppm

#### **General Product Description:**

Molecular Formula: C<sub>4</sub>H<sub>11</sub>NO<sub>3</sub> Molecular Weight: 121.14 g/mol

CAS Number: 77-86-1

#### **Tromethamine Biotech:**

- Tromethamine is a White Crystalline product.
- Is manufactured under an ICH-Q7 Quality Managed cGMP System
- Manufactured in an enzyme free, hormone free and animal free environment
- Has no known major food allergens (as defined by FDA and WHO)
- The final product nor its raw materials are not derived from nor come into contact with animals, animal parts, animal products, and/or animal byproducts or derivatives.
- Is not subject to genetic modification
- Synonyms: Tris, Tromethamine, Tris(hydroxymethyl) aminomethane

### **Shelf Life Policy:**

Three-year expiry from the date of manufacture.

#### **Storage and Shipping Conditions:**

Please refer to the SDS for storage and shipping conditions.

#### Package Size:

100g, 500g, 1kg, 5kg, 10kg, 25kg, 50kg