

ALADDIN SCIENTIFIC CORPORATION
 14078 Meridian Parkway, Riverside, CA. 92518

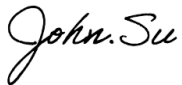
Certificate of Analysis

Date of Testing: 2026-05-15 11:46:34
 Date of Next Testing: 2030-05-14 11:46:34
 Product Name: **Tris(hydroxymethyl)aminomethane (Tris base)**
 CAS Number: 77-86-1
 Specifications & Purity: PharmPure™, USP, Ph.Eur., for cell culture, ≥99.9%(T)
 Lot #: E2609149
 SKU #: **T110598**
 Version: **2**
 Analysis #: **696471**
 Storage Temperature: Room temperature, Argon charged

Parameter	Limit Values	Result
Loss on drying(EP)	0-0.5 (%)	0.10520 %
Melting point	168-172 (°C)	171.21000 °C
Ignition Residue(Ash)	0-0.1 (%)	0.00200 %
Water by Karl Fischer	0-0.2 (%)	0.10360 %
Iron(Fe)(ICP)	0-1 (ppm)	0.00200 ppm
Purity (Titration by H2SO4)	99.7-100.3 (%)	100.14000 %
Heavy metal (as Pb)	0-2 (ppm)	0.02140 ppm
PH(5% in water)	10-11.5	10.63500
UV Absorbance 280nm(40%,H2O)	0-0.4	0.07300
UV Absorbance 290nm(40%,H2O)	0-0.4	0.06800
UV Absorbance 260nm(40%,H2O)	0-0.4	0.08600
Loss on Drying(USP)	≤1 (%)	0.32500 %
Chloride (Cl-)	≤100 (ppm)	1.52500 ppm
Endotoxin Level	<1 (EU/mg)	0.35490 EU/mg
Total Count Aerobic, Yeast, plus Mold	≤100 (cfu/g)	0.21480 cfu/g
Appearance (T110598)	White to Off-White Solid, Powder, or Crystals	White to Off-White Solid, Powder, or Crystals
Identity Test B (USP)	Pass	Pass
Identity Test C (USP)	Pass	Pass
Infrared spectrum	Conforms to Structure	Conforms to Structure
Related substances	Pass	Pass
Solubility in H2O , clear colorless , 200g plus 300ml of water	pass	Pass
Solubility in 2.5 g plus 50 ml of CO2-Free H2O (EP),colorless ,clear	Pass	Pass

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Parameter	Limit Values	Result
Identity Test A (USP)	Pass	Pass
DNAse, Exonuclease Detection	None Detected	none detected
NICKase, Endonuclease Detection	none Detected	none detected
RNAse Detection	None Detected	none detected
Protease Detection	None Detected	none detected
Cell Culture Test	pass	Pass



John Su
QA & QC Manager