

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

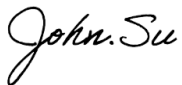
Date of Testing: 2023-03-14 15:52:36
 Date of Next Testing: 2025-03-03 15:52:36
 Product Name: **Tris(hydroxymethyl)aminomethane**
 CAS Number: 77-86-1
 Specifications & Purity: for molecular biology, ≥99.9%(T)
 Lot #: F2115223
 SKU #: **T110601**
Analysis: 198936
 Storage Temperature: Argon charged

Parameter	Limit Values	Result
Molybdenum(Mo)	0-5 (ppm)	2.50 ppm
UV Absorbance 280nm (4 M in H ₂ O)	0-0.08	0.08
useful PH range	7-9	8.19
UV Absorbance 260nm (4 M in H ₂ O)	0-0.1	0.08
Ignition Residue (as sulfate)	0-0.01 (%)	0.01 %
Sodium(Na)	0-50 (ppm)	25.00 ppm
Chromium(Cr)	0-5 (ppm)	2.50 ppm
Iron(Fe)	0-5 (ppm)	2.50 ppm
Sulfate(SO ₄ ²⁻)	0-5 (ppm)	0.00 ppm
(Pb)Lead	0-5 (ppm)	2.50 ppm
Nickel(Ni)	0-5 (ppm)	2.50 ppm
Chloride (Cl ⁻)	0-20 (ppm)	15.00 ppm
Lithium(Li)	0-5 (ppm)	2.50 ppm
Strontium(Sr)	0-5 (ppm)	2.50 ppm
Cadmium(Cd)	0-5 (ppm)	2.50 ppm
Magnesium(Mg)	0-5 (ppm)	2.50 ppm
Purity (Titration by H ₂ SO ₄)	99.7-100.3 (%)	99.78 %
PH	10.5-12	10.87
Potassium(K)	0-50 (ppm)	25.00 ppm
Loss on drying	0-0.5 (%)	0.25 %
Bismuth(Bi)	0-5 (ppm)	2.50 ppm
(As)Arsenic	0-0.1 (ppm)	0.05 ppm
Barium(Ba)	0-5 (ppm)	3.00 ppm
Zinc(Zn)	0-5 (ppm)	2.50 ppm
Copper(Cu)	0-5 (ppm)	2.50 ppm
Cobalt(Co)	0-5 (ppm)	3.00 ppm

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Parameter	Limit Values	Result
Aluminum(Al)	0-5 (ppm)	4.00 ppm
Calcium(Ca)	0-10 (ppm)	5.00 ppm
Manganese(Mn)	0-5 (ppm)	2.50 ppm
DNases	none detected	none detected
Insoluble matter	pass	Pass
phosphatases	none detected	none detected
pKa	6.8	6.8
proteases	none detected	none detected
RNases	none detected	none detected
Solubility in H ₂ O , soluble , 1M , 20°C, clear, colorless	pass	Pass
Infrared spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager