

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2023-04-12 13:15:35
 Date of Next Testing: 2025-04-01 13:15:35
 Product Name: **Tris(hydroxymethyl)aminomethane**
 CAS Number: 77-86-1
 Specifications & Purity: for molecular biology, ≥99.9%(T)
 Lot #: D2304130
 SKU #: **T110601**
Analysis: 172925
 Storage Temperature: Argon charged

Parameter	Limit Values	Result
Molybdenum(Mo)	0-5 (ppm)	1.63 ppm
UV Absorbance 280nm (4 M in H ₂ O)	0-0.08	0.04
UV Absorbance 260nm (4 M in H ₂ O)	0-0.1	0.05
Ignition Residue (as sulfate)	0-0.01 (%)	0.00 %
Sodium(Na)	0-50 (ppm)	3.85 ppm
Chromium(Cr)	0-5 (ppm)	2.08 ppm
Iron(Fe)	0-5 (ppm)	1.40 ppm
(Pb)Lead	0-5 (ppm)	1.52 ppm
Nickel(Ni)	0-5 (ppm)	2.39 ppm
Chloride (Cl ⁻)	0-20 (ppm)	6.52 ppm
Lithium(Li)	0-5 (ppm)	1.49 ppm
Strontium(Sr)	0-5 (ppm)	2.03 ppm
Cadmium(Cd)	0-5 (ppm)	1.06 ppm
Magnesium(Mg)	0-5 (ppm)	2.69 ppm
PH	10.5-12	11.05
Potassium(K)	0-50 (ppm)	6.82 ppm
Loss on drying	0-0.5 (%)	0.03 %
Bismuth(Bi)	0-5 (ppm)	1.35 ppm
(As)Arsenic	0-0.1 (ppm)	0.04 ppm
Barium(Ba)	0-5 (ppm)	1.83 ppm
Zinc(Zn)	0-5 (ppm)	1.28 ppm
Copper(Cu)	0-5 (ppm)	2.63 ppm
Cobalt(Co)	0-5 (ppm)	0.68 ppm
Aluminum(Al)	0-5 (ppm)	1.52 ppm
Calcium(Ca)	0-10 (ppm)	3.20 ppm
Manganese(Mn)	0-5 (ppm)	2.05 ppm

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Parameter	Limit Values	Result
useful PH range	7-9	7.20
Purity (Titration by H2SO4)	99.7-100.3 (%)	100.25 %
Sulfate(SO42-)	0-5 (ppm)	1.30 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 H2O , soluble , 1M , 20°C, clear, colorless	pass	Pass
Infrared spectrum	Conforms to Structure	Conforms to Structure

John Su
QA & QC Manager