

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2025-01-13 16:50:24
 Date of Next Testing: 2027-01-03 16:50:24
 Product Name: **HEPES**
 CAS Number: 7365-45-9
 Specifications & Purity: Suitable for molecular biology, ≥99.5%(T)
 Lot #: A2509040
 SKU #: **H109408**
 Version: **2**
 Analysis #: **425556**
 Storage Temperature: Room temperature

Parameter	Limit Values	Result
Cadmium(Cd)	0-5 (ppm)	3.56000 ppm
(As)Arsenic	0-0.1 (ppm)	0.04500 ppm
Sodium(Na)	0-50 (ppm)	42.56000 ppm
Zinc(Zn)	0-5 (ppm)	4.11000 ppm
Cobalt(Co)	0-5 (ppm)	3.65000 ppm
Lithium(Li)	0-5 (ppm)	4.80000 ppm
Magnesium(Mg)	0-5 (ppm)	4.61000 ppm
Chromium(Cr)	0-5 (ppm)	3.93000 ppm
UV Absorbance 260nm(0.5 M in H ₂ O)	0-0.1	0.01100
Iron(Fe)	0-5 (ppm)	4.31000 ppm
Nickel(Ni)	0-5 (ppm)	3.83000 ppm
Barium(Ba)	0-5 (ppm)	4.30000 ppm
UV Absorbance 280nm(0.5 M in H ₂ O)	0-0.1	0.00600
Aluminum(Al)	0-5 (ppm)	3.93000 ppm
Ignition Residue (as sulfate)	0-0.1 (%)	0.02321 %
Sulfate(SO ₄ ²⁻)	0-50 (ppm)	0.00000 ppm
loss on drying, 110 °C	0-0.5 (%)	0.00000 %
Calcium(Ca)	0-10 (ppm)	6.18700 ppm
Molybdenum(Mo)	0-5 (ppm)	3.96000 ppm
Strontium(Sr)	0-5 (ppm)	4.05300 ppm
Copper(Cu)	0-5 (ppm)	4.11000 ppm
(Pb)Lead	0-5 (ppm)	3.82000 ppm
Chloride (Cl ⁻)	0-50 (ppm)	41.53000 ppm
Manganese(Mn)	0-5 (ppm)	4.04540 ppm
Bismuth(Bi)	0-5 (ppm)	3.97600 ppm

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Parameter	Limit Values	Result
PH(25 °C, 1 M in Water)	5-6.5	5.34000
Potassium(K)	0-50 (ppm)	42.62000 ppm
Purity (T)	99.5-100.5 (%)	99.86000 %
Appearance (H109408)	white crystalline powder	white crystalline powder
DNases	none detected	none detected
Insoluble matter	pass	Pass
proteases	none detected	none detected
Proton NMR spectrum	Conforms to Structure	Conforms to Structure
RNases	none detected	none detected
Solubility in H2O , soluble , 1M , 20°C, clear, colorless	pass	Pass

A handwritten signature in black ink that reads "John Su".John Su
QA & QC Manager