

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-01-13 09:24:40  
 Date of Next Testing: 2025-01-02 09:24:40  
 Product Name: **Guanidine Hydrochloride**  
 CAS Number: 50-01-1  
 Specifications & Purity: for molecular biology, ≥99.5% (AT)  
 Lot #: D2109177  
 SKU #: **G108673**  
**Analysis:** **178459**  
 Storage Temperature: Room temperature, Argon charged

Parameter	Limit Values	Result
Ignition Residue (as sulfate)	0-0.05 (%)	0.02 %
Sodium(Na)	0-50 (ppm)	25.00 ppm
Nickel(Ni)	0-5 (ppm)	2.50 ppm
Potassium(K)	0-50 (ppm)	25.00 ppm
Iron(Fe)	0-5 (ppm)	2.50 ppm
Zinc(Zn)	0-5 (ppm)	2.50 ppm
Calcium(Ca)	0-10 (ppm)	5.00 ppm
Loss on drying	0-0.5 (%)	0.02 %
UV Absorbance 260nm	0-0.03	0.02
(As)Arsenic	0-0.1 (ppm)	0.05 ppm
Barium(Ba)	0-5 (ppm)	0.05 ppm
Sulfate(SO42-)	0-50 (ppm)	25.00 ppm
Lithium(Li)	0-5 (ppm)	2.00 ppm
Magnesium(Mg)	0-5 (ppm)	2.00 ppm
Melting point	187-190 (°C)	187.12000 °C
Cobalt(Co)	0-5 (ppm)	2.00 ppm
UV Absorbance 280nm	0-0.02	0.01
Manganese(Mn)	0-5 (ppm)	2.00 ppm
(Pb)Lead	0-5 (ppm)	2.50 ppm
Purity(Titration by AgNO3)	99.5-100.5 (%)	100.25 %
Molybdenum(Mo)	0-5 (ppm)	2.00 ppm
Chromium(Cr)	0-5 (ppm)	2.00 ppm
Strontium(Sr)	0-5 (ppm)	2.00 ppm
Copper(Cu)	0-5 (ppm)	2.00 ppm
Cadmium(Cd)	0-5 (ppm)	2.00 ppm
Bismuth(Bi)	0-5 (ppm)	2.00 ppm

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Parameter	Limit Values	Result
Aluminum(Al)	0-5 (ppm)	2.00 ppm
PH	4.5-6	5.20
Appearance (g108673)	White to Off-White Powder or Solid or Chunks	White to Off-White Powder or Solid or Chunks
DNases	none detected	none detected
Infrared spectrum	Conforms to Structure	Conforms to Structure
Insoluble matter	pass	Pass
phosphatases	none detected	none detected
proteases	none detected	none detected
RNases	none detected	none detected
Solubility in H <sub>2</sub> O , Colorless	pass	Pass
λ,6 M in H <sub>2</sub> O (6mol/L, H <sub>2</sub> O)	Pass	Pass

John Su  
QA & QC Manager