

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing:	2024-08-19 16:37:59
Date of Next Testing:	2028-08-18 16:37:59
Product Name:	CHES
CAS Number:	103-47-9
Specifications & Purity:	≥99.5%(T)
Lot #:	K2009191
SKU #	C110897
Version	0
Analysis #:	401096
Storage Temperature:	Protected from light,Argon charged

Parameter	Limit Values	Result
Manganese(Mn)	0-5 (ppm)	4.06 ppm
PH(25 °C, 0.5 M in Water)	3-5	4.96
(As)Arsenic	0-0.1 (ppm)	0.02 ppm
Barium(Ba)	0-5 (ppm)	1.37 ppm
Magnesium(Mg)	0-5 (ppm)	2.17 ppm
Lithium(Li)	0-5 (ppm)	1.27 ppm
UV Absorbance 280nm	0-0.05	0.02
Cobalt(Co)	0-5 (ppm)	3.36 ppm
Aluminum(Al)	0-5 (ppm)	2.87 ppm
UV Absorbance 260nm	0-0.08	0.03
Strontium(Sr)	0-5 (ppm)	3.07 ppm
Purity (Titration by NaOH)(anhydrous)	99.5-100.5 (%)	99.56 %
useful PH range	8.6-10	9.89
Molybdenum(Mo)	0-5 (ppm)	2.56 ppm
Ignition Residue	0-0.05 (%)	0.02 %
loss on drying, 110 °C	0-0.5 (%)	0.24 %
Bismuth(Bi)	0-5 (ppm)	2.87 ppm
Calcium(Ca)	0-10 (ppm)	5.54 ppm
Nickel(Ni)	0-5 (ppm)	2.46 ppm
Heavy metal (as Pb)	0-5 (ppm)	0.00 ppm
Potassium(K)	0-50 (ppm)	27.96 ppm
Iron(Fe)	0-5 (ppm)	1.56 ppm
Zinc(Zn)	0-5 (ppm)	2.25 ppm
Cadmium(Cd)	0-5 (ppm)	2.76 ppm
Sodium(Na)	0-50 (ppm)	30.94 ppm

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Parameter	Limit Values	Result
Sulfate(SO ₄ ²⁻)	0-500 (ppm)	200.00 ppm
Chloride (Cl ⁻)	0-50 (ppm)	18.96 ppm
Chromium(Cr)	0-5 (ppm)	1.87 ppm
Copper(Cu)	0-5 (ppm)	2.45 ppm
Appearance (C110897)	white crystalline powder	white crystalline powder
Infrared spectrum	Conforms to Structure	Conforms to Structure
Insoluble matter	pass	Pass
pKa	6.8	6.8
Solubility in H ₂ O , soluble , 1M , 20°C, clear, colorless λ,0.5 M in H ₂ O	pass Pass	Pass Pass

John Su
QA & QC Manager