

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

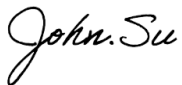
Date of Testing: 2024-03-15 15:09:05  
 Date of Next Testing: 2025-03-15 15:09:05  
 Product Name: **Ammonium formate**  
 CAS Number: 540-69-2  
 Specifications & Purity: for LC-MS, ≥99.0%  
 Lot #: F23061240  
 SKU #: **A100186**  
**Analysis:** **331440**  
 Storage Temperature: Desiccated

Parameter	Limit Values	Result
Bismuth(Bi)	0-1 (ppm)	0.00 ppm
Sulfate(SO42-)	0-50 (ppm)	7.50 ppm
Chromium(Cr)	0-1 (ppm)	0.00 ppm
Lithium(Li)	0-1 (ppm)	0.00 ppm
(As)Arsenic	0-0.1 (ppm)	0.00 ppm
Ignition Residue (as sulfate)	0-0.1 (%)	0.01 %
Cadmium(Cd)	0-1 (ppm)	0.00 ppm
Strontium(Sr)	0-1 (ppm)	0.00 ppm
Copper(Cu)	0-1 (ppm)	0.00 ppm
Manganese(Mn)	0-1 (ppm)	0.00 ppm
Iron(Fe)	0-1 (ppm)	0.00 ppm
Aluminum(Al)	0-1 (ppm)	0.00 ppm
Cobalt(Co)	0-1 (ppm)	0.00 ppm
Purity(Based on Trace Metals Impurities of ICP)	99.999-100 (%)	100.00 %
Magnesium(Mg)	0-1 (ppm)	0.00 ppm
Molybdenum(Mo)	0-1 (ppm)	0.00 ppm
Nickel(Ni)	0-1 (ppm)	0.00 ppm
Sodium(Na)	0-5 (ppm)	0.00 ppm
Zinc(Zn)	0-1 (ppm)	0.00 ppm
Lead(Pb)	0-1 (ppm)	0.00 ppm
Total Metallic Impuritie	0-20 (ppm)	1.00 ppm
Chloride (Cl-)	0-50 (ppm)	0.00 ppm
Barium(Ba)	0-1 (ppm)	0.00 ppm
Melting point	119-121 (°C)	119.02000 °C
Potassium(K)	0-5 (ppm)	0.00 ppm
PH	5.5-7.5	6.62

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Parameter	Limit Values	Result
Water by Karl Fischer	0-2 (%)	1.14%
Assay(TITRATION (NT) HCLO4 0.1M)(calc. based on dry substance)	99-101 (%)	99.99970%
Calcium(Ca)	0-5 (ppm)	0.00 ppm
UV Absorbance 260nm(at 1M in H2O)	0-0.01	0.00
UV Absorbance 280nm(at 1M in H2O)	0-0.01	0.00
Appearance (A100186)	White crystals	White crystals
Infrared spectrum	Conforms to Structure	Conforms to Structure
Insoluble matter	pass	Pass



John Su  
QA & QC Manager