

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-03-02 17:03:32  
 Date of Next Testing: 2027-03-01 17:03:32  
 Product Name: **Sulfobetaine 12**  
 CAS Number: 14933-08-5  
 Specifications & Purity: 98%  
 Lot #: B2324025  
 SKU #: **S105512**  
**Analysis:** **059300**  
 Storage Temperature: Store at 2-8°C, Argon charged

Parameter	Limit Values	Result
Ignition Residue	0-0.1 (%)	0.06 %
Zinc(Zn)	0-5 (ppm)	0.00 ppm
Insoluble matter	0-0.1 (%)	0.05 %
Calcium(Ca)	0-0.002 (%)	0.00 %
Copper(Cu)	0-5 (ppm)	0.00 ppm
Potassium(K)	0-50 (ppm)	1.22 ppm
Phosphate(PO4)	0-5 (ppm)	2.00 ppm
Chloride (Cl-)	0-0.05 (%)	0.03 %
Purity(HPLC)	98-100 (%)	99.96200 %
Iron(Fe)	0-5 (ppm)	0.48 ppm
Hydrogen by Elemental Analysis	10.7-11.3 (%)	11.00 %
Aluminum(Al)	0-5 (ppm)	0.00 ppm
Magnesium(Mg)	0-5 (ppm)	0.85 ppm
Sulfur by Elemental Analysis	0-0.05 (%)	0.02 %
(Pb)Lead	0-0.001 (%)	0.00 %
Ammonia (NH4)	0-500 (ppm)	30.00 ppm
Sodium(Na)	0-50 (ppm)	4.02 ppm
Nitrogen by Elemental Analysis	3.9-4.4 (%)	3.92 %
Carbon by Elemental Analysis	59.4-61 (%)	60.85 %
Appearance (S105512)	White powder	White powder
Infrared spectrum	Conforms to Structure	Conforms to Structure
metal trace analysis (icp)	corresponds to requirements	CORRESPONDS TO REQUIREMENTS
Solubility in H2O(20°C , colorless clear (< 3.5 ntu), 1M)	pass	Pass



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A handwritten signature in black ink that reads "John Su". The signature is written in a cursive, flowing style.

John Su  
QA & QC Manager