

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-03-03 19:34:39  
Date of Next Testing: 2027-03-02 19:34:39  
Product Name: **L-Asparagine Monohydrate**  
CAS Number: 5794-13-8  
Specifications & Purity: 99%  
Lot #: C2302020  
SKU #: **A108223**  
**Analysis:** **194046**  
Storage Temperature: Protected from light

Parameter	Limit Values	Result
Heavy metal (as Pb)	0-10 (ppm)	1.52 ppm
Transmission(c=2, H <sub>2</sub> O, 430 nm)	98-100 (%)	99.01 %
Sulfate(SO <sub>4</sub> <sup>2-</sup> )	0-280 (ppm)	80.00 ppm
Chloride (Cl <sup>-</sup> )	0-210 (ppm)	120.00 ppm
Iron(Fe)	0-10 (ppm)	1.26 ppm
Purity(Nonaqueous Titration)	99-100 (%)	99.56 %
Loss on drying	11.5-12.5 (%)	12.50 %
(As)Arsenic	0-1 (ppm)	0.50 ppm
Other amino acids(TLC)	0-1 (%)	0.23 %
Sulfate Ash	0-0.1 (%)	0.05 %
Specific Rotation [α] <sub>20</sub> /D(c=10 in 6N HCl)	33.5-36.5 (°)	33.52°
Appearance (A108223)	White to Off-White Powder	White to Off-White Powder
Infrared spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager