

Certificate of Analysis

Date of Testing: 2023-02-21 08:56:50
 Date of Next Testing: 2027-02-20 08:56:50
 Product Name: **N-Acetyl-L-Cysteine**
 CAS Number: 616-91-1
 Specifications & Purity: USP,EP,≥98.5%
 Lot #: B2316347
 SKU #: **A105421**
Analysis: **190372**
 Storage Temperature: Store at 2-8°C,Argon charged

Parameter	Limit Values	Result
Assay	98.5-101 (%)	99.01 %
Loss on drying	0-1 (%)	0.49 %
Total impurities	0-0.5 (µg/kg OR ng/g)	0.25 µg/kg OR ng/g
Other impurities	0-0.5 (%)	0.19 %
n,n'diacetyl-l-cystine	0-0.5 (%)	0.22 %
Ignition Residue (as sulfate)	0-0.2 (%)	0.11 %
Endonuclease Detection	0-0.1 (EU/g)	0.06 EU/g
Specific Rotation [α] ₂₀ /D(c=5 in Phosphate buffered saline)	21.3-27 (°)	22.90°
Heavy metal (as Pb)	0-10 (ppm)	3.80 ppm
n,s-diacetyl-l- cysteine	0-0.5 (%)	0.32 %
l-cystine	0-0.5 (%)	0.29 %
Zinc(Zn)	0-10 (ppm)	4.40 ppm
PH test	2-2.8	2.50
l-cysteine	0-0.5 (%)	0.31 %
Appearance (A105421)	white crystalline powder	white crystalline powder
biochemical toxicity	passes	passes
Infrared spectrum	Conforms to Structure	Conforms to Structure
Solubility in H ₂ O , 0.5 G /10 ML in water, clear, colorless	pass	Pass
volatile organic substances	pass	Pass



ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

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

John Su
QA & QC Manager