



Certificate of Analysis

N-Acetyl-L-Cysteine USP/AJI

Catalog Number: AC1001
Lot Number: 1212701
CAS Number: 616-91-1
Synonym(s): LNAC, NAC
Molecular Formula: C₅H₉NO₃S
Molecular Weight: 163.19
Storage: 15°C – 30°C
Date of Manufacture: May 22, 2017
Retest Date: May 20, 2020

Test	Specification	Result
Appearance	White crystalline powder	Conforms
Assay (Anhydrous Basis)	98.50% - 100.50%	99.7%
Identification (FTIR)	Positive	Conforms
Melting Point	106.00°C - 110.00°C	108.0°C – 109°C
Specific Rotation	+21.30° to +27.00°	23.0°
Transmittance	≥ 98.0%	99.5%
pH	2.0 - 2.8	2.2
Moisture (LOD)	≤ 0.50%	0.08%
Residue on Ignition	≤ 0.20%	0.05%
Ammonium	≤ 0.02%	< 0.02
Chloride	≤ 0.04%	< 0.04%
Sulfate	≤ 0.03%	< 0.03%
Heavy Metal	≤ 10 ppm	< 10.0ppm
Arsenic	≤ 1.0ppm	< 1.0ppm
Cadmium	≤ 1.0ppm	< 1.0ppm
Lead	≤ 1.0ppm	< 1.0ppm
Mercury	≤ 1.0ppm	< 1.0ppm
Iron	≤ 20 ppm	< 20.0ppm
Other Amino Acids	Chromatographically not detectable	Conforms
Total Plate Count	≤ 1,000cfu/g	< 1,000cfu/g
Yeast & Mold	≤ 100cfu/g	< 100cfu/g
Coliforms	≤ 10cfu/g	< 10cfu/g
<i>E. Coli</i>	Negative	Negative
<i>Salmonella</i>	Negative	Negative
<i>Staphylococcus aureus</i>	Negative	Negative
Mesh Size	20 - 100mesh	100% thru 20mesh 87% thru 40mesh 27% thru 100mesh
Bulk Density	≥ 0.70g/mL	0.71g/mL
Tap Density	≥ 0.75g/mL	0.81g/mL
This lot meets the specifications for USP37 and AJI92.		

For research or further manufacturing. Not for drug, clinical or a food use in humans or animals.



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Approved by:

John Grubb

Date: December 12, 2017

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