

Certificate of Analysis

Product Name:	N-Acetyl-L-Glutamine
Starting Material:	L-Glutamine (Corn) & Acetic Anhydride
Solvents:	None
Carriers:	None
Country of Origin:	China
Batch Number:	Varies
Manufacture Date:	Varies
Retest Date:	Varies

Test Results Obtained by PureBulk

ITEMS	SPECIFICATIONS	RESULTS
N-Acetyl L-Glutamine (HPLC)	≥98%	98.94%
N-Acetyl L-Glutamine <Identification> (HPLC)	Positive	Confirmed Sample peak retention time compares positively to standard peak retention time within ± 10%.
Aerobic Plate Count	≤1,000 cfu/g	<20 cfu/g
Coliforms	≤100 cfu/g	<20 cfu/g
<i>E. Coli</i>	Negative	Absent
<i>Staph aureus</i>	Negative	Absent
Yeast & Mold	≤100 cfu/g	<20 cfu/g
<i>Salmonella</i>	Negative	Absent
<i>Pseudo. aeruginosa</i>	Negative	Absent
Conclusion (PureBulk):	This product conforms to standards	

The following information is an indirect translation of information provided from the Manufacturer's Certificate of Analysis, and should not be used solely as an instrument for strict quality control.

ITEMS	SPECIFICATIONS	RESULTS
Appearance	White crystals or crystalline powder	Conforms
Specific Rotation [α] _D ^{20°}	-11.5°~ -13.0°	-12.35°
State of solution	≥95.0%	99.6%
Chloride (Cl)	≤0.04%	<0.04%
Sulfate (SO ₄)	≤0.048%	<0.048%
Ammonium (NH ₄)	≤0.10%	<0.10%
Iron (Fe)	≤30 ppm	<30 ppm
Heavy Metals (Pb)	≤10 ppm	<10 ppm
Arsenic (As ₂₀₃)	≤2 ppm	<2 ppm
pH	1.7~2.8	2.2
Other amino acids	Not Spot	Conforms
Loss on Drying	≤0.6%	0.14%
Residue on Ignition	≤0.2%	0.06%
Solubility	Soluble in water	Conforms
Mesh Size	Report Only	100% pass 60 mesh
Conclusion (Manufacturer):	This product conforms to AJI92 standards	

Additional Information:	Allergen-Free Gluten-Free Non-BSE Vegan
GMO Statement:	Non-GMO
Composition:	N-Acetyl L-Glutamine 98-101%
Storage Conditions:	Keep in sealed container under 25°C. Keep away from strong light, heat and moisture.

Purebulk.Inc verifies that the information contained herein is true and correct to the best of our knowledge.

Verified By: Ann Foote / Nicole Rammage / Candace Gibson

(This document was produced electronically and is valid without signature.)