

Certificate of Analysis

Product Name: **D- Glucosamine HCL (Shellfish)**
 Starting Material: **Crab/Shrimp Shell**
 Carrier: **None**
 Residual Solvents: **Alcohol (≤5000 ppm)**
 Country of Origin: **China**
 Batch Number: **Varies**
 Manufacture Date: **Varies**
 Retest Date: **Varies**

Test Results Obtained by PureBulk

ITEMS	SPECIFICATIONS	RESULTS
D-Glucosamine HCl (HPLC)	98~102%	100.05%
Aerobic Plate Count	≤1000 cfu/g	Not Detected
Coliforms	Report Only	Not Detected
<i>E. Coli</i>	Negative	Absent
<i>Staph aureus</i>	Report Only	Absent
Yeast & Mold	≤100 cfu/g	Not Detected
Salmonella	Negative	Absent
<i>Pseudo. aeruginosa</i>	Report Only	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 to off white crystalline powder	Conforms
Identification	Meets the requirements	Conforms
Specific Rotation	+70.0°~ +73.0°	+72.4°
PH	3.0~5.0	4.3
Loss on Drying	≤1.0%	0.06%
Particle Size	100% pass through 80 mesh	Conforms
Residue on Ignition	≤0.1%	0.03%
Heavy Metals	≤10 ppm	Conforms
Lead (Pb)	≤3 ppm	Conforms
Arsenic (As)	≤3 ppm	Conforms
Cadmium (Cd)	≤1 ppm	Conforms
Mercury (Hg)	≤0.1 ppm	Conforms
Organic volatile impurities	Meets the requirements	Conforms
Solubility	Soluble in cold water	Conforms
Conclusion (Manufacturer):	This product conforms to USP40 standards	

Additional Information: Allergen (crustacean shellfish) || BSE/TSE Free || Gluten Free

GMO Statement: Non-GMO

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 / Candace Gibson

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