Certificate of Analysis

Product Name: **L-Leucine**
CAS No.: **61-90-5**
Molecular Formula: **C6H13NO2**
Molecular Weight: **131.17 g/mol**
Country of Origin: **China**
Batch Number: **Varies**
Manufacture Date: **Varies**
Retest Date: **Varies**

Test Results Obtained by PureBulk

ITEMS	SPECIFICATIONS	RESULTS
L-Leucine (HPLC)	98.5-101.5%	99.95%
Loss on Drying (USP<731>)	≤0.2%	0.18%
Aerobic Plate Count	≤1000 cfu/g	<20 cfu/g
Coliforms	≤100 cfu/g	<20 cfu/g
E. Coli	Negative/g	Absent
Staph aureus	Negative/g	Absent
Yeast & Mold	≤100 cfu/g	<20 cfu/g
Salmonella	Negative/g	Absent
Pseudo. aeruginosa	Negative/g	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 or almost white crystalline powder	Conforms
Identification	as per USP33	Conforms
Specific Rotation	+14.9° to +17.3°	+15.5°
pH	5.5 to 7.0	5.8
Residue on Ignition	≤0.4%	0.04%
Chloride	≤0.05%	<0.05%
Sulfate	≤0.03%	<0.03%
Iron	≤30 ppm	<30 ppm
Heavy Metals	≤15 ppm	<15 ppm
Lead (Pb)	≤1 ppm	<1 ppm
Cadmium (Cd)	≤1 ppm	<1 ppm
Arsenic (As2O3)	≤1 ppm	<1 ppm
Mercury (Hg)	≤0.1 ppm	<0.1 ppm
Chromatographic Purity	as per USP33	Conforms
Particle Size	90% through 80 mesh	Conforms
Bulk Density	Report Only	0.40 g/ml
Tapped Density	Report Only	0.54 g/ml
Conclusion (Manufacturer):	This product conforms to USP33 standards	

Additional Information: Allergen Free ‖ BSE/TSE Free ‖ Gluten Free ‖ Vegetarian
GMO Statement: Non-GMO
Composition: 100% L-Leucine
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.)