



Certificate of Analysis

Product Name: **L-Lysine HCL**
 Starting Material: **Corn Starch**
 Carrier: **None**
 Country of Origin: **China**
 Batch Number: **1612270630**
 Manufacture Date: **June 27, 2016**
 Test Date: **December 5, 2016**
 Retest Date: **December 4, 2018**

Test Results Obtained by PureBulk

ITEMS	SPECIFICATIONS	RESULTS
Identification (FT/IR)	Positive	Confirmed
L-Lysine HCL (Titration)	Report Only	101.13% (dry basis)
Loss on Drying (LOD)	≤0.4%	0.24%
Aerobic Plate Count	≤1000 cfu/g	Not Detected
Yeast & Mold	≤100 cfu/g	Not Detected
Coliforms	Report Only	Not Detected
<i>E. Coli</i>	Negative/10g	Absent
<i>Salmonella</i>	Negative/10g	Absent
<i>Staph aureus</i>	Negative/10g	Absent
<i>Pseudo. aeruginosa</i>	Negative	Absent
Conclusion (PureBulk):	This product conforms to USP 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	+20.4° ~+21.4°	+20.5°
Residue on Ignition	≤0.1%	0.04%
Chloride (Cl)	19.0 ~ 19.6%	19.28%
Sulfate (SO4)	≤0.03%	<0.03%
Iron (Fe)	≤0.003%	<0.003%
Heavy Metals (Pb)	≤0.0015%	<0.0015%
Related Compounds	Meet the requirement	Meet the requirement
Arsenic (As)	≤1 ppm	<1 ppm
Cadmium (Cd)	≤1 ppm	<1 ppm
Mercury (Hg)	≤2 ppm	<2 ppm
Lead (Pb)	≤3 ppm	<3 ppm
Conclusion (Manufacturer):	This products conforms to enterprise standards	

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: Brenda Bristow /Ann Foote

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