



Certificate of Analysis

L-Leucine USP

Catalog Number: LE1001
Lot Number: 0212402
CAS Number: 61-90-5
Molecular Formula: C₆H₁₃NO₂
Molecular Weight: 131.17
Storage: 15°C – 30°C
Date of Manufacture: May 31, 2013
Retest Date: May 30, 2015

Test	Specification	Result
Appearance	White to off-white powder	Conforms
Assay	98.5% to 101.5%	99.7%
Identification (by IR)	To match standard	Conforms
Specific Rotation	+14.9° to +17.3°	15.60°
Moisture (LOD)	≤0.2%	0.12%
pH (1% solution in H ₂ O)	5.5 to 7.0	5.6
Residue on Ignition	≤0.10%	0.04%
Chromatographic Impurities	Total ≤2.0% Individual ≤0.5%	<2.0% <0.5%
Chloride (Cl)	≤0.050%	<0.050%
Sulfate (SO ₄)	≤0.03%	<0.03%
Heavy Metals	≤10.0ppm	<10.0ppm
Arsenic (As)	≤1.00ppm	<1.00ppm
Cadmium (Cd)	≤1.00ppm	<1.00ppm
Iron (Fe)	≤30.0ppm	<10.0ppm
Lead (Pb)	≤1.00ppm	<1.00ppm
Mercury (Hg)	≤1.00ppm	<1.00ppm
Total Plate Count	≤1,000cfu/g	<1,000cfu/g
Yeast & Mold	≤100cfu/g	<100cfu/g
Coliforms	≤100cfu/g	<10cfu/g
<i>E. coli</i>	Negative	Negative
<i>Salmonella</i>	Negative	Negative
<i>Staphylococcus aureus</i>	Negative	Negative
Mesh Size	60 - 200	95.7% (100mesh) 72.2% (150mesh)
Bulk Density	0.20 – 0.50g/mL	0.33g/mL
Tap Density	0.30 – 0.70g/mL	0.53g/mL

Approved by:

John Grubb

Date: February 12, 2014



Gojira Fine Chemicals, LLC

Quality Products & Services Meeting Customer Needs
5386 Majestic Parkway, Suite 7, Bedford Heights, OH 44146
www.gojirafc.com • sales@gojirafc.com

John Grubb, PhD
Gojira Fine Chemicals, LLC
Quality Manager
Tel: 440-539-7033 Fax: 888-211-5523
john@gojirafc.com