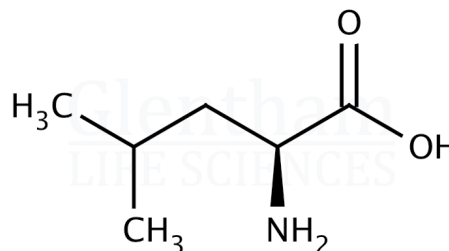


Certificate of Analysis

Product Name L-Leucine
Glenthams Code GM6205
CAS Number 61-90-5
EINECS 200-522-0
MDL Number MFCD00002617
PubChem SID 310275745
Batch Number 1600NC

Molecular Weight 131.18
Molecular Formula $C_6H_{13}NO_2$
Storage Temp. +20°C



Property	Specification	Batch 1600NC
Physical Description	White to almost white crystals or crystalline powder	White crystalline powder
Identification (IR)	To conform to standard	Conforms
pH (1% in water)	5.5 - 7.0	5.9
Specific Optical Rotation ($[\alpha]_{20/D}$)	+14.9 - +17.3 ° (c=4, 6N HCl)	+15.8°
Residue on Ignition	≤ 0.1%	< 0.1%
Loss on Drying	≤ 0.2% (105°C, 3h)	< 0.2%
Any Individual Impurity (TLC)	≤ 0.5%	Conforms
Total Impurities (TLC)	≤ 2.0%	Conforms
Chloride (Cl)	≤ 0.05%	< 0.05%
Sulphate (SO ₄)	≤ 0.03%	< 0.03%
Iron (Fe)	≤ 30ppm	< 30ppm
Heavy Metals	≤ 15ppm	< 10ppm
Lead (Pb)	≤ 3ppm	< 3ppm
Arsenic (As)	≤ 1ppm	< 1ppm
Cadmium (Cd)	≤ 1ppm	< 1ppm
Mercury (Hg)	≤ 0.1ppm	< 0.1ppm
Assay (Titration)	98.5 - 101.5 % (dried basis)	99.8%
Pharmacopoeia Specification(s)	USP	Conforms

Specification Version v1.2
Manufacture Date 2024-11-11
Re-Test Date 2035-02-19

Glenthams Life Sciences confirm that the above referenced product conformed to the information displayed in this document on the quality release date. Please check www.glenthams.com or contact us using the details above for the current version of this document.

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