# L-Leucine

*$C_6H_{13}NO_2$ · CAS 61-90-5 · L-leucine, crystalline*

**CATALOG TDS — CONFIRMED IN WRITING AT QUOTATION**

| CHEMICAL FORM | FORMULA | CAS | PRIMARY ASSAY |
|---|---|---|---|
| L-leucine, crystalline | $C_6H_{13}NO_2$ | 61-90-5 | 98.5–101.5% (titration) |
| **METHOD** | **MINIMUM ORDER** | **LEAD TIME** | **STANDARD PACK** |
| Titration and HPLC | 1 kg | 1–7 days | 1 kg foil pouch · 25 kg fiber drum |

## DESCRIPTION

L-leucine specified at 98.5–101.5% on the dried basis, for capsules, tablets and sports powders where the free amino acid, the rotation and the BCAA ratio have to be declared.

## SPECIFICATION

| PARAMETER | SPECIFICATION | METHOD / NOTE |
|---|---|---|
| Assay (dried basis) | 98.5–101.5% (titration) | As stated |
| Appearance | White crystalline powder | As stated |
| Identification | IR and ninhydrin reaction conform | As stated |
| Specific rotation | +14.9° to +17.3° (dried basis) | As stated |
| Loss on drying | ≤0.5% | As stated |
| Residue on ignition | ≤0.1% | As stated |
| pH (5% solution) | 5.5–6.5 | As stated |
| Heavy metals | Pb ≤3 · As ≤2 · Cd ≤1 · Hg ≤0.1 mg/kg | As stated |
| Microbiology | APC ≤1,000 cfu/g · yeast and mould ≤100 cfu/g · E. coli and Salmonella absent | As stated |
| Particle size | ≥95% through 40 mesh | As stated |
| Marker set | L-leucine (98.5–101.5%, dried basis) | Identity |
| Solubility | Sparingly soluble in water; soluble in dilute acid and alkali. | Matrix dependent |

## APPLICATIONS

- Capsules and tablets
- Powder sticks and drink mixes
- Sports powders

## AVAILABLE FORMS

- Crystalline powder, 40 mesh
- Milled to 80 mesh on request
- Granulated on request

## PACKING

- 1 kg foil pouch
- 25 kg fiber drum

## STORAGE

Store in a cool, dry, well-ventilated area, away from direct sunlight and moisture. Keep the pack closed after sampling. The lot-specific retest date is shown on the batch COA.

## DOCUMENTATION RELEASED WITH EACH LOT

- Batch-specific certificate of analysis
- Technical data sheet and safety data sheet
- Allergen, GMO, origin and residual-solvent statements
- Third-party reports on request

**Catalog document.** This TDS describes the grade we can quote. The final specification, pack and documentation are confirmed in writing before the order. It is not a batch COA and does not report a result for a specific lot.

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