Rainwood NUTRITION

SPECIMEN CERTIFICATE OF ANALYSIS
RN-036 · AMINO ACIDS

# L-Leucine

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

**SPECIMEN — LIMITS ONLY · BATCH RESULTS ISSUED WITH THE LOT**

| PRODUCT | CHEMICAL FORM | CAS | SPECIFICATION VERSION |
|---|---|---|---|
| L-Leucine | L-leucine, crystalline | 61-90-5 | Catalog · confirmed at quotation |
| **BATCH NUMBER** | **MANUFACTURE DATE** | **RETEST DATE** | **RELEASE DECISION** |
| Issued with the lot | Issued with the lot | Issued with the lot | Issued with the lot |

## RELEASE SPECIFICATION

| PARAMETER | SPECIFICATION | METHOD |
|---|---|---|
| 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 |

## LOT FIELDS

A batch-specific certificate replaces the fields above with the measured result, the method actually used, the batch number, the manufacture and retest dates, and the release signature. The catalog limits on this page are the release window, not a result.

## STATEMENT

This specimen shows the format and the release specification. It is not a batch COA and must not be presented as one. The COA that ships with a lot is issued from the released batch and is available before dispatch.

**Pack and storage.** 1 kg foil pouch · 25 kg fiber drum. Store closed in a cool, dry place, away from direct sunlight and moisture. The lot-specific retest date is shown on the batch certificate.