

PRODUCT DATA SHEET

USP XXIV

L-ISOLEUCINE USP

CAS No. [73-32-5]

$C_6H_{13}NO_2$

M.W.: 131.17

>> Isoleucine contains not less than 98.5 percent and not more than 101.5 percent of $C_6H_{13}NO_2$ as L-isoleucine, calculated on the dried basis.

Isoleucine: White, practically odorless crystals, having a slightly bitter taste. Soluble in water; slightly soluble in hot alcohol; insoluble in ether.

SPECIFICATIONS

Packaging and storage	:	Preserve in well-closed containers
USP Reference standards	:	USP L-Isoleucine RS
Identification	:	Infrared Absorption (197K)
Specific rotation	:	between +38.9° and +41.8° Test solution: 40mg per mL, in 6N hydrochloric acid
pH	:	between 5.5 and 7.0, in a solution (1 in 100)
Loss on drying	:	Dry it at 105° for 3 hours: it loses not more than 0.3% of its weight.
Residue on ignition	:	not more than 0.3%
Chloride	:	A 0.73-g portion shows no more Chloride than corresponds to 0.50 mL of 0.020 N hydrochloric acid (0.05%)
Sulfate	:	A 0.33-g portion shows no more sulfate than Corresponds to 0.10 mL of 0.020 N sulfuric acid (0.03%)
Iron	:	0.003%
Heavy metals, Method I	:	0.0015%
Organic volatile impurities, Method I	:	meets the requirements
Assay	:	Transfer about 130mg of Isoleucine, accurately Weighed to a 125-mL flask, dissolve in a Mixture of 3mL of formic acid and 50 mL of Glacial acetic acid, and titrate with 0.1 N Perchloric acid VS, determining the endpoint Potentiometrically. Perform a blank determination

And making any necessary correction. Each mL of 0.1 N perchloric acid is equivalent to 13.12 mg of $C_6H_{13}NO_2$