

SUNNY CHEMGROUP CO., LIMITED

ADDRESS: 218 C 5/F JAFFE MANSION 218 JAFFE RD WAN CHAI HONGKONG

Email: manager@famechem.com TEL:008613831165827

Certificate of analysis

INVOICE NO.:TTSFC510/23

PO No.:6611

Product Name :L-Valine	QUANTITY:750 KGS	BATCH NO.: 23022301
Producing date:FEB.23,2023	RE-TESTdate: FEB.22,2025	
Reference standard: USP24	Package: 25kg/drum	

ITEM	Standards	RESULT
Least items	White crystals or crystalline powder;	conforms
Identification(IR)	Concordant with the reference spectrum	conforms
pH	5.5-7.0	5.8
Assay	98.5%-101.5	99.9%
Loss on drying	Not more than 0.30%	0.08%
Specific Rotation	+26.6--+28.8	+27.7
Chloride(Cl)	Not more than 0.05%	<0.05%
Sulfate(SO4)	Not more than 0.03%	<0.03%
Heavy Metals	≤15ppm	<15ppm
Organic volatile impurities	Meets the requirements	conforms
Iron(Fe)	≤30ppm	<30ppm
Lead	Not more than 30ppm	<1.5ppm
Arsenic	Not more than 1.5ppm	conforms
Mercury	Not more than 0.1ppm	conforms
Residue on ignition	≤0.10%	0.08%

Conclusion: This product conforms to USP24 standard.