



## CERTIFICATE OF ANALYSIS

### L-ISOLEUCINE

ITEM	SPECIFICATION	RESULT
1. Appearance:	White crystals or crystalline	Conform
2. Identification:	Infrared Absorption	Conform
3. Specific rotation:	+38.9 to +41.8	+39.3
4. PH:	5.5-7.0	5.7
5. Loss on drying:	Not more than 0.3%	0.13%
6. Residue on ignition: (sulfated)	Not more than 0.3%	0.08%
7. Chloride:	Not more than 0.05%	Less then 0.05%
8. Sulphate:	Not more than 0.03%	Less then 0.03%
9. Iron:	Not more than 30ppm	Less then 30ppm
10. Heavy metals:	Not more than 15ppm	Less then 15ppm
11. Organic volatile impurities:	Meet the requirements	Conform
12. Assay:	98.5 to 101.5%	99.8%