

CERTIFICATE OF ANALYSIS

Product Name	L-Valine	Batch Number	010052200703
Package	5.0kg per bag	Manufacture Date	Jul 03, 2020
CAS Number	72-18-4	Best Used Before	Jul 02, 2022
Items	Specifications	Results	
Appearance	White crystals or crystalline powder	Conforms	
Identification	Infrared Absorption	Conforms	
Specific rotation $[\alpha]_D^{20}$	+ 26.6° to + 28.8°	+ 26.7°	
pH	5.5 to 7.0	6.6	
Loss on drying	≤0.3%	0.13%	
Residue on ignition	≤0.10%	0.05%	
Chloride (Cl)	≤0.05%	<0.005%	
Sulfate(SO ₄)	≤0.03%	<0.03%	
Iron(Fe)	≤0.003%	<0.003%	
Heavy metals	≤0.0015%	<0.0015%	
Organic volatile impurities	Meet the requirements	Conforms	
Assay	98.5% to 101.5%	99.2%	
Total Plate Count	≤1000cfu/g	Conforms	
Yeast and Mould	≤100cfu/g	Conforms	
E.Coli	Negative	Negative	
Salmonella	Negative	Negative	
S.aureus	Negative	Negative	

Conclusion: Qualified