



无锡金海岸生物科技有限公司

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CERTIFICATE OF ANALYSIS

PRODUCT NAME: L-VALINE

CAS NO:72-18-4

BATCH NO: LB

SHELF LIFE: 2 YEARS

PRODUCTION DATE:

REPORT DATE:

STANDARD: USP32

QUANTITY:KGS

| Tests | Limits | Test results | Test method |
|---|--|--------------|---------------|
| Description | White crystals or crystalline powder | Conforms | Visual Method |
| Identification (IR) | Concordant with the reference spectrum | Conforms | USP<197K> |
| Specific rotation $[\alpha]_D^{25}$ | +26.6° ~ +28.8° | +28.0° | USP<781S> |
| Assay | 98.5~101.5% | 99.5% | TLC |
| PH | 5.5~7.0 | 5.9 | USP<791> |
| Loss on drying | ≤0.30% | 0.20% | USP<731> |
| Residue on ignition | ≤0.10% | 0.05% | USP<281> |
| Chloride(Cl) | ≤0.05% | <0.05% | USP<221> |
| Sulfate(SO ₄) | ≤0.03% | <0.03% | USP<221> |
| Iron(Fe) | ≤30ppm | <30ppm | USP<241> |
| Heavy metals(Pb) | ≤15ppm | <15ppm | USP<231> |
| Arsenic(As) | ≤1ppm | <1ppm | USP<211> |
| Lead | ≤ 3ppm | <3ppm | USP<251> |
| Mercury | ≤0.1ppm | <0.1ppm | USP<261> |
| Chromatographic purity | Conforms | Conforms | USP<621> |
| Organic volatile impurities | Meets the requirements | Conforms | USP<467> |
| Total plate count | ≤1000cfu/g | <1000cfu/g | USP<61> |
| Molds and Yeasts | ≤100cfu/g | <100cfu/g | USP<61> |
| Escherichia Coli | Negative | Negative | USP<62> |
| Salmonella enteritica | Negative | Negative | USP<62> |
| Conclusion: Passed test according to the Standard of USP32. | | | |



Inspector:Guoqin Zou

Checker: Fengzhu Xu

Director:Deming Cao