MASTERCHEM LIMITED
Sale E-Mail : Export@ChinaMasterChem.Com

L-Valine [Feed Grade USP]

DESCRIPTION

L-VALINE: AN INDISPENSABLE AMINO ACID FOR GROWTH PERFORMANCE.

Piglet performance is significantly improved when diets are balanced with L-Valine
Valine is also limiting for broilers.
The commercial availability of L-Valine has allowed nutritionists to balance the amino acid content of swine and poultry feeds, meet the amino acid requirements of their high-yielding livestock without causing an imbalance in other amino acids, and significantly reduce the nitrogen excretion of their livestock through a reduction in dietary protein. Together, L-Valine provides the feed industry with a tool that can meet a variety of economical, nutritional and environmental targets.

L-Valine is an essential amino acid for increased cognitive function and smooth nervous system functioning.
L-Valine is also needed for muscle metabolism, tissue repair and the maintenance of a proper nitrogen balance in the body. It is found in very concentrated levels in muscle tissue.

SPECIFICATION

Physical Data
Chemical formula: C5H11NO2
Molecular weight1: 117.15
Appearance: Whitish crystalline powder
Content: 98.5% (on a dry matter basis)
Dry matter: 98.5% (Minimum)

Stability
Shelf life: 3 years (25kg fibre drum) when unopened

Packaging Specifications
Valine 25 kg fiber drums.
Loading : Max 10,000kgs per 20'FCL (no pallets)

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Test Items	Standards	Test result
Description	Whitish crystalline powder	Conforms
Assay(on a dry matter basis)	98.5% Min	99%
Identification (Infrared absorption)	Corresponding to Reference spectrum	Conforms
Specific rotation	+26.6°～+28.8°	+27.5°
Residue on ignition	≤0.10%	0.03%
Chloride（Cl）	≤0.05%	＜0.05%
Iron（Fe）	≤30ppm	＜30ppm
Sulfate（SO4）	≤0.03%	＜0.03%
Heavy metals	≤10ppm	＜10ppm
Lead （Pb）	≤3ppm	＜3.0ppm
Arsenic(As)	≤1.0ppm	＜1.0ppm
Cadmium(Cd)	≤1.0ppm	＜1.0ppm
Mercury(Hg)	≤0.1ppm	＜0.1ppm
Total Plate Count	≤1000cfu/g	220cfu/g
Yeast and Mold	≤100cfu/g	＜10cfu/g
E.Coli	Negative	Conforms
Staphylococcus Aureus	Negative	Conforms
Salmonella	Negative	Conforms
Particle Size Range(80mesh%)	≥80%	91%
Storage Condition	In Cool and dry place	
Conclusion	Passed test according to the Standard of USP24	

- **MSDS**

Product Information
Product Name: L-Valine (Feed Grade)
Chemical Name: 2-Aminoisovaleric Acid
CAS Registry Number: 72-18-4
Synonyms: Valine
Chemical Family: Amino acid
Composition: L-Valine: Minimum 98.5% on a dry matter basis
Formula: C5H11NO2
Molecular Weight: 117.15

Physical Data
Bulk Density: 0.5 to 0.6 grams/cm3 (31 to 37 lbs/Ft3)
Appearance & Odor: White to whitish crystalline powder
Solubility in Water: 5.70 g/100 g water at 20ºC; insoluble in common neutral solvents

Statement of Health Hazard
Hazard Description: This is not a hazardous material; however, avoid contact with eyes as it is a mild eye irritant.

First Aid Measures
Emergency Aid:
INHALATION: In case of breathing trouble, immediately relocate to a fresh air environment. Rinse mouth with water. If not breathing, give artificial respiration. If breathing becomes difficult give oxygen and seek medical attention.

EYES: Flush eyes with copious amounts of water for 15 minutes. Assure adequate flushing by separating eyelids with fingers. If contacts are worn, remove lenses and continue rinsing. Seek medical attention.

SKIN CONTACT: In case of exposure, wash with soap and copious amounts of water. If irritation persists, seek medical attention.

INGESTION: Rinse mouth with water. If any trouble appears, seek medical attention.

Fire & Explosion Hazard Data
Electrostatic Properties: Under certain conditions, electrostatic discharges may be capable of igniting dust cloud.
Maximum Explosion Pressure
Pmax (bar): 5.7
Maximal Rate of Pressure Rise
MRP (bar/s): 507
Flash Point: None
Auto-ignition Temperature: Of a dust layer, 400ºC (752ºF); of a dust cloud, 460ºC (860ºF)

Extinguishing Media: Water, carbon dioxide, dry chemical powder / foam
Special Fire-Fighting Procedures: Should wear protective clothing and respiratory protection to protect from fumes of carbon dioxide, carbon monoxide and NOx.
Personal Protective measures: Wear protective clothing and breathing mask to protect from fumes

Handling and Storage
Handling: No particular protection required, although it is recommended to wear gloves and face mask if excessive handling is necessary.
Storage: Store in dry conditions in sealed or closed containers. After opening, the product should be used within a short period. Keep away from sources of ignition.

Spill or Lead Procedures
Steps to be Taken: Ordinary, same as food.
Waste Disposal: Prevent spills from entering sewers and water ways. Ventilate the work area and prevent dust generation. Collect the product and place it in bags or containers for later waste disposal. This product may be disposed of as would be with any other non-hazardous material as prescribed by local and state law. After the dry material is removed, rinse surfaces with water.

Chemical Reactivity
Stability: Stable if stored in dry conditions in sealed or closed containers
Conditions to Avoid: Avoid electrical sparks and other sources of ignition when handling this product.
Materials to Avoid: None
Hazardous Decomposition Products: Combustion of the product will result in the release of carbon dioxide, carbon monoxide and nitric oxide.

Protection Procedures
Respiratory Protection: It is recommended to wear a (paper) mask that covers the nose and mouth
Hand Protection: It is recommended to wear gloves, especially in case of extended contact
Eye Protection: It is recommended to wear safety goggles
Skin Protection: It is recommended to wear protective clothes that cover the skin. Discard or wash protective clothes after being exposed to the dust.

Labeling & Shipping
Proper Shipping Name: L-Valine
Transport: Not subject to legislation regarding transport of hazardous substances or preparations.

Disposable Considerations
Disposal: Dispose of in accordance with all regulations.

Other Regulatory Requirements
None