

Product characteristics

L-Valine Feed Grade from AJINOMOTO EUROLYSINE S.A.S.

Physical description: White to whitish crystalline powder
Packaging: 15 kg bags on shrink wrapped pallets
Commercial guarantees: L-Valine concentration : Minimum 96.5% in the product as is (minimum 98% on a dry matter basis)
Moisture : Maximum 1.5%

Nutritional values and application:
Valine content: minimum 96.5%, 100% digestible,
ME Poultry 22 MJ/kg, NE Pig 17.7 MJ/kg.
All animal species
Practical inclusion rates :
usually from 0.1 to 2.5 kg L-Valine Feed Grade/mt feed.

More Information

AJINOMOTO EUROLYSINE S.A.S. Information bulletin # 33 May 2009 collates the available information on the valine requirement of piglets. New trials on this amino acid are detailed with practical examples.

More information is available on our website www.ajinomoto-eurolysine.com :

- ▶ Check the valine content of your feedstuffs with AEL's Formulator's Handbook: more than just another table, it is a predictive tool of amino acid content of feedstuffs
- ▶ Estimate the net energy content and digestible amino acids of your feedstuffs with EvaPig®
- ▶ Update information on amino acid nutrition
- ▶ Access product technical data sheets

Contact

AJINOMOTO EUROLYSINE S.A.S.
153, rue de Courcelles
75817 Paris Cedex 17
France
Tel : + 33 1 44 40 12 12



Privilège +33 1 47 20 80

L-Valine

BY AJINOMOTO EUROLYSINE S.A.S.



Val
Trp
Thr
Lys



L-Valine Feed Grade from AJINOMOTO EUROLYSINE S.A.S. is a major innovation for the feed industry. Used to meet the digestible valine requirement of animals, L-Valine Feed Grade is a new ingredient that brings options for optimising feed formulations that have not been available before. L-Valine, in combination with L-Lysine, L-Threonine and L-Tryptophan provides the opportunity to formulate technically and economically better feed. It also contributes to an improvement in the sustainability of animal production, particularly by reducing nitrogen excretion.

AJINOMOTO

AJINOMOTO ANIMAL NUTRITION

AJINOMOTO EUROLYSINE S.A.S.

AJINOMOTO EUROLYSINE S.A.S. is certified in compliance with ISO 9001, FAMI-QS, ISO 14001 and OHSAS 18001

L-Valine: Break through the feed optimisation barrier!

Valine is one of the amino acids for pigs and poultry that have to be supplied in the feed because animals are unable to synthesize it. Its main biological function is its involvement in the synthesis of muscle protein; in other words, growth performance.

L-Valine, to improve growth performance

In piglets, recent research by AJINOMOTO EUROLYSINE S.A.S. has corroborated previous literature findings of a requirement of a minimum ratio of 70% digestible valine to lysine for optimum growth. L-Valine supplementation to balance piglet diets leads to a significant improvement in performance, as shown in the following chart.

SID Val:Lys	ADG improvement	FCR improvement
From 61 to 70%	+14%	-7%
From 64 to 70%	+7%	-4%

Effect of dietary valine level (expressed as digestible valine:lysine ratio) in piglets. Average of 5 dose-response trials in piglets between 8 and 30 kg body weight (AEL Technical information Bulletin 33-May 2009).

In broilers, valine is also a limiting amino acid in feed formulation and a minimum ratio of 80% digestible valine to lysine is recommended. With the new availability of L-Valine Feed Grade, the formulation of pig and poultry diets is made easier. The use of L-Valine in feeds means that the amino acid requirements of animals can be satisfied without causing an imbalance in amino acids.

Ideal amino acid profiles, in which the level of each amino acid is expressed as a percentage of the optimum lysine level for growth, have been defined as follows:

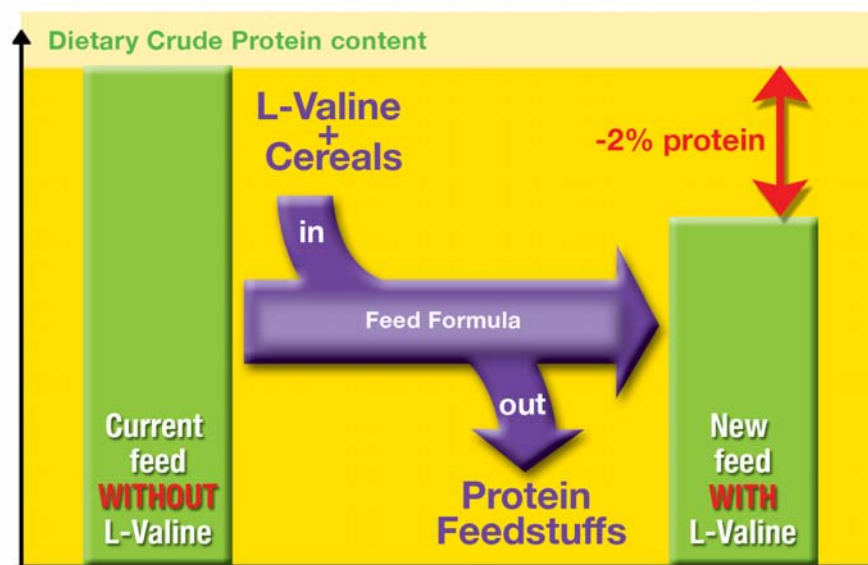
Ideal Amino Acid Profile	Piglets (4 - 25 kg)	Broilers (0 - 42 days)
Lysine	100%	100%
Methionine + Cystine	60%	75%
Threonine	65%	65%
Tryptophan	22%	17%
Valine	70%	80%
Isoleucine	55%	67%

L-Valine, to further reduce dietary crude protein

The reduction of crude protein in feeds has been limited by a lack of information on the exact level of valine that is required for optimum growth and, to a large extent, by the non-availability of feed grade L-Valine. AJINOMOTO EUROLYSINE S.A.S.'s new L-Valine gives the feed industry the opportunity to implement further decreases in dietary protein content, which can be driven by nutritional, economic and environmental goals, such as:

- ▶ An improvement in feed efficiency
- ▶ A reduction of protein oversupply to the animal thus improving health conditions and reducing digestive disorders
- ▶ A reduction of feed costs
- ▶ A reduction of nitrogen excretion from animals into the environment.

On the basis of a piglet feed containing 70% SID Val:Lys ratio, the use of L-Valine breaks through the old feed optimisation barrier allowing a further decrease in the crude protein content of about 2 percentage points of protein.



L-Valine, to optimise feed formulation

The arrival of L-Valine Feed Grade represents a breakthrough in feed formulation. L-Valine is a new raw material to compete with protein-rich feedstuffs in the feed formulator's matrix. L-Valine presents new options for combining protein feedstuffs and optimising their use in the feed industry. Along with other feed grade amino acids, L-Valine offers greater flexibility in the use of raw materials to satisfy nutritional constraints. Feeds can be more precisely optimised and this can lead to lower feed costs and more efficient animal production.