

Features and benefits

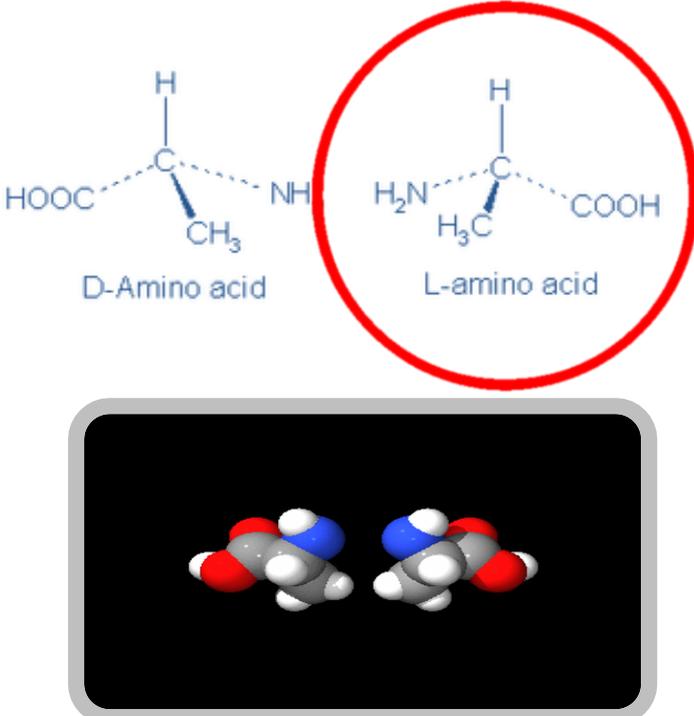
PROMOTOR-L 47

L-Amino acids and hidro soluble vitamins



CALIER
COMMITTED TO
ANIMAL WELFARE

<u>FEATURES</u>			<u>BENEFITS</u>
1º- 18 AMINO ACIDS Supply, essentials and not essentials			
Essential amino acids <small>(no synthesized by the birds)</small>	Semi essential amino acids <small>(synthesized with limitants substrates)</small>	No essential amino acids <small>(Synthesized by the birds)</small>	<ul style="list-style-type: none"> - Animals synthesize their proteins based on the combination of 22 amino acids, but do not have the ability to synthesize all of them or not do it at the required speed. Such amino acids that can not be synthesized by animals are referred to as essential. - PROMOTOR-L 47 provides these essential amino acids, as well as non-essential. - Many competing products do not provide as many amino acids (which mainly provide are lysine and methionine)
Methionine Lysine Threonine Valine Tryptophan Isoleucine Arginine Histidine Leucine Phenilalaline	Cistine Tirosine	Alanine Aspartic Acid Asparagine glutamic Acid Glutamine Glycine Serine Proline	

2º- ALL AMINO ACIDS ARE IN THE LEVO ROTATORY FORM	
 <p>D-Amino acid</p> <p>L-amino acid</p>	<ul style="list-style-type: none"> - Animal protein synthesis requires amino acids in the levorotatory form, these are the only ones that can be incorporated into animal protein. So all right-handed amino acids or DL form must pass the L form. - In this conversion there is a metabolic expenditure and a heat loss, which aggravates problems of heat stress. - The conversion of forms D, DL to form L is done with performance between 60-70%, resulting in a loss of the composition of the product. - The amino acid Levogiros are 100% bioavailable and very high (near 100%) digestibility - Few protein supplements in the market include amino acids L.

3º- Product with HIGH CONCENTRATION OF PROTEIN



PROMOTOR-L 47 (left) and concurrence – HIPRACHOK (right) with poor protein concentration.



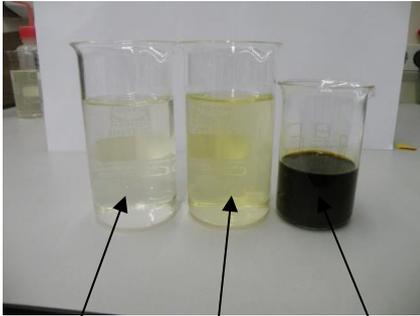
PROMOTOR-L47 concentration (in the middle) and other concurrence products: (HIPRACHOK e HIDROREX VITAL) dose 1 ml/litre of water

- The quantities of each amino acid are adjusted so that, without reach an excess, they are a perfect supplement to the diet in certain moments of the production cycle of the birds.
- **In the market there are products with very few amino acids concentration, are very diluted products.**

4º- AMINO ACID profile balanced, adjusted to the concept of IDEAL protein

- Protein IDEAL is a proposed concept to optimize the use of the protein in the diet (relationship between retention and protein consumption) and minimize nitrogen excretion.
- The needs of birds are adjusted and are put in relation to the lysine (key limiting amino acid for growth). Hens and chickens have a specific profile of ideal protein depending on their stage of growth.
- El PROMOTOR-L 47 has very well balanced amino acids between each other and conform to the needs of the birds, much approaching the value marked by ideal protein.

5º- High SOLUBILITY product



0,5ml/l - 1ml/l - PURE

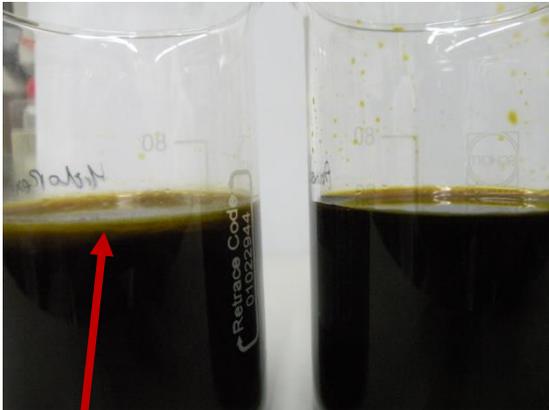
- It solubilizes without problem in drinking water
- Does not generate biofilm.
- It does not cause bloking of pipes
- Proven for years in almost all Europe, Africa and Middle East, Brazil and China among others.



6º- VERY STABLE PRODUCT

Does not contain fat-soluble vitamins (A, D, E, K)

Hidrorex vital / PROMOTOR-L 47



Oil coating of other products with fat-soluble vitamins

- It lacks any component of easy degradation, as fat-soluble vitamins, which may cause blocking of pipes or generation of biofilm.
- Fat-soluble vitamins dissolve in fats and oils, not in the water.
- Fat-soluble vitamins degrade quite easily, which can lead to problems in the quality of the water. Fat-soluble vitamins are sensitive to light and oxygen (especially vitamin E)
- PROMOTOR-L 47 maintains the stability for a longer time and reactions that alter the quality of the water are not generated.
- 47 PROMOTOR-L vitamin B12 has been removed, although it is a water-soluble vitamin, is very unstable at alkaline ph, very typical of the hard water in many parts of the world.

OVERVIEW/STRENGTHS OF THE PROMOTOR-L47

- ✓ **It contains LEVO ROTATORY FORM amino acids**
- ✓ **It contains 7 vitamins (water-soluble)**
- ✓ **Profile of amino acids very complete (18).**
- ✓ **High protein concentration.**
- ✓ **Profile of amino acids very balanced, adjusted to the concept of Ideal protein**
- ✓ **HIGH SOLUBILITY**
- ✓ **VERY STABLE** (does not contain fat-soluble vitamins), does not cause quality problems in the water in pipes and troughs.