

# Cu

# MAXLYSINAT

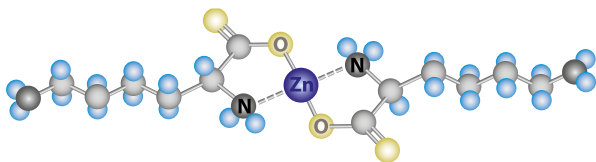
## HIGHEST QUALITY ZINC AND COPPER BIS-LYSINATES

**MAXLYSINAT** products are copper and zinc chelates based on lysine complexes. They are manufactured with a patented production process that guarantees the highest quality chelate complexes with the best product properties and extreme stability.

### ESSENTIAL NUTRIENTS FROM AN ENTIRELY NEW MOLECULE

**MAXLYSINAT** products offer a completely new approach to livestock and poultry nutrition supplementation. **MAXLYSINAT** products combine lysine with an essential trace mineral in a two-to-one chelated molecule. The products, which are exclusively distributed by PROVITA SUPPLEMENTS, are the first and only zinc and copper bis-lysinate that have been authorized as feed additives for all animal species in the European Union. They are produced through a patented process that involves a dry media reaction. As a completely new and innovative molecule, zinc bis-lysinate is listed in the Cambridge Crystallographic Data Centre (CCDC 1048236).

**MAXLYSINAT/Zn** is the only zinc bis-lysinate listed in the Cambridge Crystallographic Data Centre (CCDC 1048236).



## MAXLYSINAT

- Maximum bioavailability
- Allows decreased lysine supplementation
- Optimal solubility with maximum stability
- Innovative, patented production process

### A COMBINATION FOR PERFORMANCE

Copper is an essential nutrient for animal performance and health. It serves a number of important functions in animals, including immune system integrity and wound healing.

Zinc is an important part of more than 300 enzymes, making it crucial for almost all metabolic processes in the animal. It has positive effects on body and skeletal growth, regeneration of skin and hair, and on wound healing and immune function.

Lysine, an essential amino acid, plays a central role in protein synthesis and accretion. It is an active ligand that transports trace elements to where they are needed, so they can be fully used by the targeted tissue. It plays a central mediator role for trace elements, boosting their metabolic effect in animals and actively promoting growth and health.

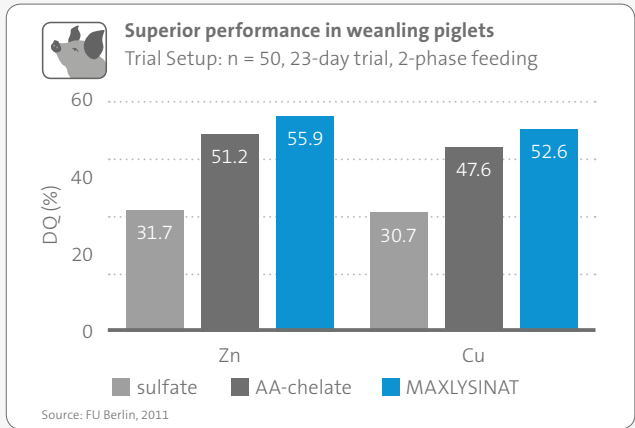
With copper and zinc bis-lysinate, PROVITA SUPPLEMENTS has successfully combined the positive effects of lysine on an animal's metabolism with adapted trace mineral supplementation.

PERFECT COMPONENTS. MAXIMUM RESULTS.

# A NEW DIMENSION IN NUTRIENT SUPPLEMENTATION

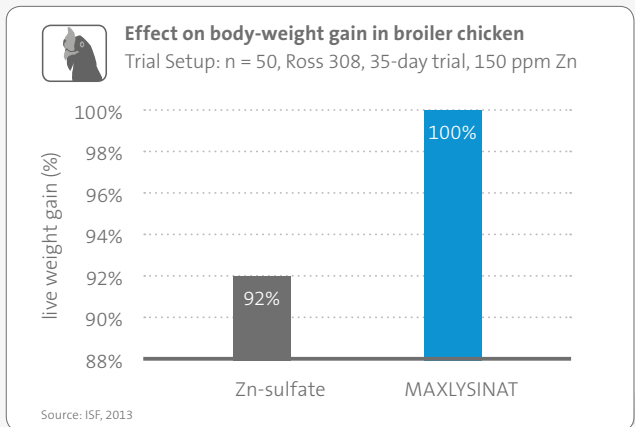
## PIG NUTRITION

In order to realize the full potential of modern swine genetics, it's critical that pigs receive a targeted supply of essential nutrients. **MAXLYSINAT** precisely supplies targeted tissues with copper and zinc to establish a sound foundation for better growth and improved feed efficiency. Furthermore, **MAXLYSINAT** helps pigs reach their potential by supplying lysine, which is the first limiting amino acid in protein synthesis. Studies conducted at Berlin Free University on weanling piglets confirmed that the unique **MAXLYSINAT** bis-lysinate delivered significant advantages when compared to sulfates.



## POULTRY NUTRITION

Feedstuffs by themselves are often inadequate for meeting the trace mineral requirements of today's poultry, so supplementation is typically necessary for peak production. In addition, an adequate supply of protein and amino acids, respectively, is essential for animal growth. **MAXLYSINAT** not only delivers the trace elements copper and zinc, it also provides lysine, which benefits a bird's body and its metabolism too. Trials conducted by the research and development department of ISF investigated various performance parameters of broilers, and they confirmed the clear benefits of **MAXLYSINAT** when compared to sulfates.



## RUMINANT NUTRITION

Rearing high-performing, healthy calves requires optimal nutrition, including a smart, state-of-the-art combination of trace minerals. Trace minerals by themselves are not readily available to the animal, however, so **MAXLYSINAT** bis-lysinate ensures that trace minerals are delivered precisely where needed. Why lysine? Because it is the first limiting amino acid in calves, so it is integrated in protein metabolism with priority. This means copper and zinc are effectively delivered to growing muscles and connective tissues.

A two-stage trial with calves clearly showed the superior biological availability and optimized rearing results for **MAXLYSINAT** compared to copper/zinc sulfate and copper/zinc sulfate + lysine.

