Selko®

Optimin

Organic trace minerals

Westside

Optimin

Trace minerals are essential to maintain fertility, health and immunity. Optimin organic minerals are protected and easily absorbed, minimising risk of malnutrition. Optimin supports the animal to have an optimal mineral status contributing to health and improved performance. A superior trace mineral source can reduce variability in the herd leading to better overall profits.

The nutritional success of any trace mineral depends on its ability to be absorbed in the small intestine.

That is related to the capacity of the ligand to hold onto and help it survive the environment of the gastrointestinal tract until its absorption.

Optimin organic trace minerals have been specially formulated to have excellent bioavailability.

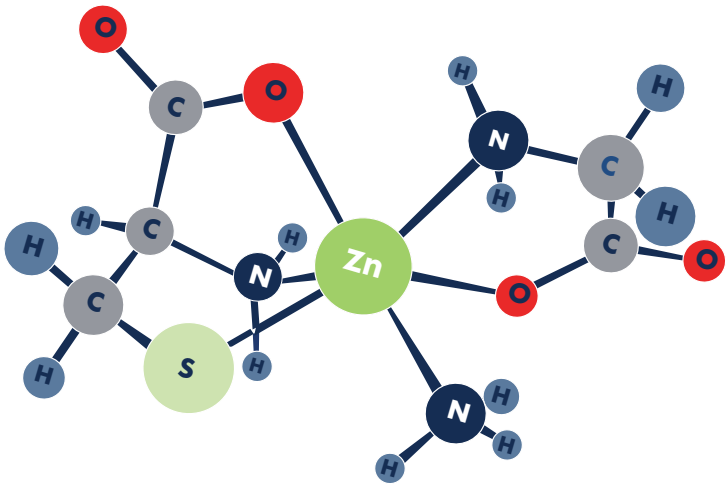
Optimin has high bond stability, allowing it to maintain its structure under acidic conditions, such as is typical in the stomach.

How does it work?

When supplying trace minerals, it is essential that the bond to the ligand has optimal strength.

1. The trace mineral-ligand bond(s) need to be strong and stable enough to survive passage through to the small intestine for absorption into the blood stream.

2. The bond must not be so strong as to prevent mineral transporters produced by the animal from facilitating absorption into the bloodstream.



Types of trace mineral bonds

Trace minerals are often described as organic or inorganic.

Inorganic trace minerals → ionic bonds → very weak bonds (unstable); very strong bonds (unavailable to animals)

Organic trace minerals → covalent bonds → complexes; chelates

Optimin ← stronger bonds and are more stable than complexes

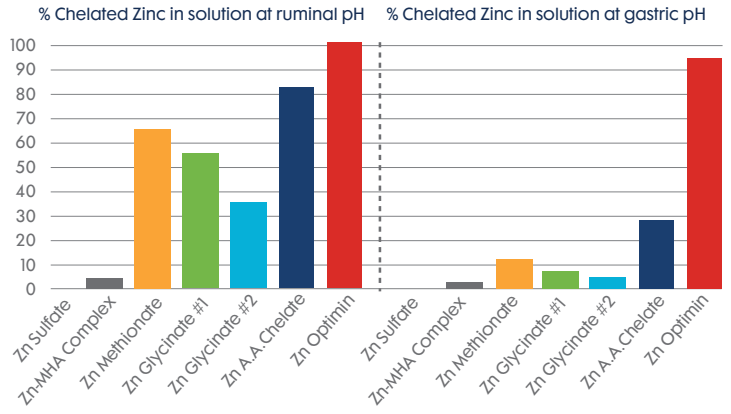
bonds too weak
disassociate in stomach

bonds too strong
transporters cannot cleave

$CuSO_4$ — Optimin — CuO

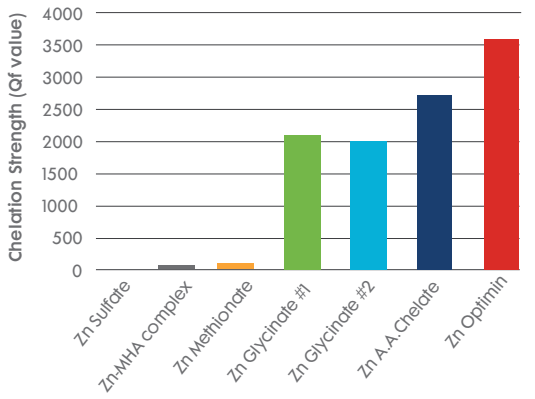
"Optimin trace minerals have been demonstrated to have stronger bond strength but also greater stability compared to other complexes at various pHs typically found in the gastrointestinal tract."

Optimin chelates resist disassociation at varying digestive pHs



Source: Trouw Nutrition R&D, 2009

Optimin Zn has the highest bond strength compared to other chelated minerals



Source: Trouw Nutrition R&D, 2009

Why Optimin works

Optimin has been demonstrated to have a higher bioavailability compared to traditionally used inorganic trace mineral sources.

1. Simply supplying trace minerals is not enough

It may sound simple but the aim of any trace mineral program is to efficiently supply the animal with trace minerals. Simply supplying trace minerals is not enough as bioavailability plays an important role.

Bioavailability is the capacity of a trace mineral to be absorbed and utilised within the animal.

2. With Optimin, more of the trace mineral is available for absorption

A key characteristic of Optimin is its high bond strength and stability at various pHs. In the animal, this means that **more of the trace mineral is entering the gastrointestinal tract** as an intact chelate thus rendering it available to the animal for absorption in the small intestine.

3. Optimin has been designed to minimise the effect of antagonists

Antagonists, such as phytate, are another factor that can affect bioavailability. These antagonists can bind to free (unbound) trace mineral and render them unavailable to the animal due to their high bond strength. Optimin prevents this by maintaining its bonds at low and high pH. Its high bond strength reduces the amount of free trace minerals.

Research-proven benefits

- Optimin chelated minerals are valuable sources of bioavailable trace minerals that can benefit production and companion animals
- Optimin chelated minerals supports an animal's ability to overcome numerous stressful nutritional and physiological conditions including infections, climatic stress, farrowing, difficult digestive conditions and many more
- Optimin chelated minerals can be used for partial or total replacement of inorganic minerals and other organic minerals to improve availability and utilisation of minerals

Optimin

Full range of high quality organic trace minerals

- Optimin is a full range of organic trace minerals product line developed and marketed by an animal nutrition specialist.
- Optimin chelates are produced using natural ingredients in a dedicated facility with food-grade standards.
- FAMIQS & GMP+ certified quality controls run on every batch ensure quality, safety, performance and traceability to the Optimin users worldwide.

Optimin minerals may offer benefits to farmed and companion animals

Optimin in broiler breeders, layers and turkeys

- Hatchability
- Laying rate & laying persistency
- Skin, feathering, foot pad, egg shell quality
- Survival rate

Optimin in ruminants

- Fertility & reproductive performance
- Udder health (reduced milk SCC)
- Hoof integrity

Optimin in sows

- Fertility & reproductive performance
- Hoof integrity
- Piglet viability

Optimin in pets

- Fertility & reproductive performance
- Soft & shiny hair coat
- Premix stability & pet food shelf life

Product name	Technology	Mineral content
Optimin Zn	Chelate	15%
Optimin Cu	Chelate	15%
Optimin Mn	Chelate	15%
Optimin Fe	Chelate	15%
Optimin Co	Chelate	10%
Optimin ZMC	Chelate blend	8% - 4% - 2%
Optimin SeY 2000	Enriched yeast	2000 ppm
Optimin SeY 3000	Enriched yeast	3000 ppm

Westside Enterprises is the sole distributor of the Optimin Product Range in Southern Africa.

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