



## Zinc and Manganese Methionine Organic Trace Mineral for Broilers, Layers & Turkeys

**Liquitrace® ZM helps fill essential nutrient gaps to meet performance and profitability goals.**

Liquitrace® ZM combines zinc, manganese, and chromium, each chemically bonded to the essential amino acid methionine to form distinct organic trace mineral complexes. These highly bioavailable forms enhance mineral absorption and utilisation, while reducing mineral excretion into the environment.

### Proven Utilization for Predictable Results

Research demonstrates that chemically bonding zinc and manganese to methionine results in greater absorption and utilization of both all 3 nutrients in the animal.

In broiler trials conducted at university and private research facilities, Liquitrace® ZM:

**Trials with partial replacement of ZnSO4+MnSO4**

**136g**  
Increased Body Weight

**4 pts**  
Improved Feed Conversion

**Trials with partial replacement of Hydroxy-chloride Zn & Mn**

**226g**  
Increased Body Weight

**5 pts**  
Improved Feed Conversion

### More Benefits of LiquiTrace® ZM

- Improved immune and reproductive health.
- Easily adaptable to different feeding regimes.
- Liquid Liquitrace® ZM is less expensive and better dispersed in rations than comparable dry products.
- Liquid form is also more sustainable, with less energy use in production, no bags and no dust.

### Nutrients with Purpose: Zinc, Manganese, Chromium and Methionine

**Zinc is a trace mineral that plays a major role in immune and reproductive health in poultry:**

- Activates over 200 enzymes and helps maintain over 2000 biochemical pathways essential for health and productivity.
- Limited storage in the body means diets must contain enough absorbable zinc to meet requirements—and most feedstuffs are zinc deficient.

**Manganese is a trace mineral required for growth, bone and connective tissue health and egg shell formation:**

- Required for normal lipid and carbohydrate metabolism and a component of key enzymes necessary for antioxidant functions, blood clotting, bone deposition and cartilage formation.
- Poorly stored in the body, so diets must contain enough absorbable manganese to meet requirements.

**Methionine is a sulfur-containing amino acid required for normal growth and development:**

- Supplementation is essential because it cannot be synthesized in enough quantity to meet daily requirements.
- One of the most limiting amino acids, meaning normal protein synthesis will stop until the methionine requirement is met.

**Chromium plays a key role in energy metabolism and the animal's response to stress:**

- It enhances insulin function, improving glucose uptake and utilisation, which supports energy efficiency, growth and production performance.
- Chromium is particularly important during periods of stress, helping to maintain feed intake, immune responsiveness and overall metabolic stability.

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## Liquitracе ZM

A light-tan to lavender coloured aqueous solution of ManMet® manganese methionine, chromium methionine complex, and Zinmet® zinc methionine, chromium methionine complex.

### Packaging:

Bulk delivery  
1,000 litre module

Liquitracе ZM is compatible with all animal feeds and processed feed ingredients. Liquitracе dispersing equipment is required for application.

Temperature monitoring and agitation are required.

### Analysis:

Zinc (Zn) .....	4.64% (46,400 ppm)
Manganese (Mn) .....	4.64% (46,400 ppm)
Chromium.....	830ppm
Methionine .....	21.79%
Moisture .....	50%
pH.....	4.0
Bulk Density.....	1.40 kg/litre
Viscosity.....	1,250 centipoise at 38°C

### Feeding Rates:

Beef and Dairy Cattle .....	8.6 grams/head/day
Horses.....	8.6 grams/head/day
Poultry.....	780 grams/ton of finished feed
Small Ruminants .....	4.3 grams/head/day
Companion Animals .....	780 grams/ton of finished feed

Liquitracе ZM is manufactured by Austasia Animal Products in Forbes, NSW in our state-of-the-art facility under strict quality control.

The final product is analysed by independent laboratories to ensure maximum quality and consistency.

