

# COSEICURE CATTLE BOLUS

Trace element bolus containing copper, cobalt, iodine and selenium

## DATA SHEET



### USES

For the supply of copper, cobalt, selenium and iodine in cattle. The bolus supplies these trace elements at a controlled and constant rate for up to 6 months.

#### EACH BOLUS CONTAINS:

- 13.4% w/w copper
- 1.0% w/w iodine
- 0.15% w/w selenium
- 0.5% w/w cobalt

### BENEFITS

- No guesswork – delivers exactly the same amount of copper, cobalt and selenium every single day, at levels compatible with animal's daily requirements
- Unique soluble glass formulation
- Unique rumen-available ionic copper formulation
- Unique rumen-available ionic cobalt formulation
- Delivers trace elements which are essential for ongoing health and fertility

LIST No  
1COS009

UNIT PACKAGE  
20 Boluses

See reverse for full product detail and usage instructions



# Cattle Bolus COSEICURE™



Trace element bolus containing copper, cobalt, iodine and selenium

## PRESENTATION

Continuous release intraruminal device. A cylindrical, blue glass continual release intraruminal device approximately 82mm x 24mm and weighing approximately 100g.

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## HOW TO ADMINISTER & QUANTITIES TO PROVIDE

**Remove the bolus from the foil and ensure the bolus is as close to body temperature as possible at administration.**

Ruminating cattle over two months of age and weighing over 100 kg body weight: 2 boluses. Administer orally using an applicator, which delivers the bolus directly into the top of the gullet. Great care should be taken not to cause any injury by rough handling or by placing the applicator too far inside the throat of the animal. Ensure that each animal has swallowed the boluses by holding the mouth closed and observing the animal for a short time after dosing. Gentle massage of the throat may facilitate swallowing of the boluses.

The boluses should normally be administered just before turnout, but administration may be carried out at any time, e.g. administer to dairy cows at drying off or at calving or 30 days post-calving or at artificial insemination. Boluses can be given up to three times a year, following advice from a nutritionist to give continuous cover throughout the production cycle.

In the event of suspected overdose see carton.

To minimise the risk of regurgitation, avoid rough handling of animals after dosing.

Do not administer the recommended dosage to animals more frequently than once every 4.5 months to animals receiving concentrates or every 6 months to cattle at pasture.

## CONTRA-INDICATIONS & WARNINGS

Do not administer to non-ruminating calves or to animals weighing less than 100kg body weight. Do not administer to sheep.

## SPECIAL WARNING FOR EACH TARGET SPECIES

The product is not intended for treatment of acute clinical conditions such as nutritional muscular dystrophy.

## SPECIAL PRECAUTIONS FOR USE

### (i) Special precautions for use in animals

**Prior to supplementation with any form of copper, iodine or selenium, it should be demonstrated that there is a need for extra trace elements to be given to the animals.** Additional copper should not be administered orally or by injection, or selenium by injection, within 6 months after administration of the product to cattle at pasture or within 4.5 months in cattle where the diet is supplemented with concentrates unless subjected to a risk/benefit analysis performed by a responsible veterinarian in each case.

Do not administer any aids to alter dissolution of the bolus. The boluses are sensitive to sudden temperature changes such as those that may occur when very cold boluses are swallowed by an animal. Therefore it is important that the bolus is as close to body temperature as possible, at

administration to prevent the development of fine cracks that may change the activity of the bolus.

## ii. Special precautions to be taken by the person administering the bolus to animals.

In order to minimise the risk of contact allergy, wear gloves when handling this product

## OVERDOSE (SYMPTOMS, EMERGENCY PROCEDURES, ANTIDOTES), IF NECESSARY

No adverse effects have been observed in cattle administered three times the recommended dosage over a two-day period. Clinical signs of copper toxicity, which normally will only occur in cases of severe copper overdosage include jaundice, malaise, an acute drop in milk yield and, later, haemoglobinuria.

Signs of selenium toxicity include CNS changes, muscle weakness, vomiting, anorexia, depression, incoordination and, later, respiratory problems. In these circumstances, intravenous administration of copper and/or selenium chelating agents such as ammonium tetrathiomolybdate or EDTA (ethylenediaminetetraacetic acid) is recommended. Ammonium tetrathiomolybdate (ATTP) is often quoted in veterinary literature as an antidote to copper poisoning. ATTP is not an authorised veterinary medicine. Any pharmacologically active substances used in a veterinary medicinal product administered to a food-producing animal under the cascade must be listed in Annex I, II or III to Council Regulation (EEC) No 2377/90. As ATTP does not appear in any of these Annexes it should not be administered to an animal intended for food production.

## PHARMACEUTICAL INFORMATION AND PRECAUTIONS PHARMACODYNAMIC PROPERTIES

The active substances are the essential trace elements copper, cobalt, selenium and iodine. The boluses are designed to dissolve slowly throughout the grazing season (up to 6 months), releasing copper, cobalt, selenium and iodine.

Copper is an integral part of several enzymes with oxidase function e.g. caeruloplasmin, monoamine oxidase, cytochrome oxidase, tyrosinase, lysyl oxidase, cytochrome C and superoxide dismutase. Thus copper is essential for a variety of body functions including growth. In addition, extra copper supplementation is essential in cases of infertility due to the formation of thiomolybdates with molybdenum. Cobalt is an integral part in Vitamin B12 (cyanocobalamin), which is important for several metabolic functions. This vitamin is synthesised by micro-organisms in the rumen and is absorbed from there into the systemic circulation. Vitamin B12 acts as a co-enzyme in several metabolic pathways and in ruminants its main role is in the metabolism of propionate, which is required for synthesis of glucose via succinate in the liver.

Selenium is an integral part in the glutathione peroxidase (GSHPx) enzymes, which are involved in the protection from oxidant stress. These enzymes have a synergistic role with vitamin E and other antioxidants in removing toxic peroxides from tissue and preventing oxidative damage to membranes. Selenium is required in the thyroid gland for the conversion of T4 to T3, the active thyroxine molecule as selenium is required in the iodothyronine deiodinase enzymes.

Iodine is required for the synthesis of triiodothyronine (T3) and tetraiodothyronine (thyroxine T4) in the thyroid gland.

These hormones are derivatives of the amino acid tyrosine. The function of the iodine hormones is to affect basal metabolic rate and thus accelerate growth and increase the oxygen consumption. A deficiency of iodine will result in impaired production of these hormones and as a result goitre (enlarged thyroid gland) will be seen. The clinical consequences of iodine deficiency are seen predominantly as reproductive abnormalities, with breeding cows giving birth to hairless, weak or dead young. Note that this condition can also arise due to selenium deficiency, which can reduce the conversion of T4 into the active T3 form, and also due to the consumption of foods containing goitrogens. Goitrogens are substances particularly found in brassicas (kale, cabbage, rape) which inhibit the iodination of tyrosine and hence the synthesis of thyroxine.

## PHARMACOKINETIC PARTICULARS

Following oral administration the boluses lodge in the reticulum where they dissolve slowly over a period of approximately four to five months. The ultimate breakdown products are copper, cobalt, iodine and selenium in ionic form. The boluses provide a source of these trace elements at levels compatible with the animal's daily requirements.

## PHARMACEUTICAL PARTICULARS

### List of excipients

Phosphorus (V)-oxide  
Sodium oxide  
Magnesium oxide  
Other oxides

## SPECIAL PRECAUTIONS FOR STORAGE

Store in a dry place. Do not freeze. Protect from frost. Once the package has been opened, store unused boluses in the plastic tray in the original packaging in an airtight container.

## NATURE AND COMPOSITION OF IMMEDIATE PACKAGING

Five PVC trays, each containing four boluses and vacuum heat sealed in a polyester/aluminium foil laminate pouch, contained in a printed carton.

## SPECIAL PRECAUTIONS FOR THE DISPOSAL OF UNUSED PRODUCT OR WASTE MATERIALS DERIVED FROM THE USE OF SUCH PRODUCTS

Any unused product or waste materials should be disposed of in accordance with local requirements.

## LEGAL CATEGORY

Complementary dietetic feedstuff

## MARKETED AND MANUFACTURED BY

Telsol Ltd, T/A Bimeda-Telsol,  
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**Please consult your local trained animal health advisor before using. Please Use Responsibly**

TAKE TIME



OBSERVE LABEL  
DIRECTIONS

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