

# COSECURE

Continuous Release Intraruminal Device

## CATTLE BOLUS

## DATA SHEET



### INDICATIONS

For prevention and treatment of copper and selenium deficiencies and for improvement of cobalt supply in cattle.

### BENEFITS

- Provides copper, cobalt and selenium for up to six months in cattle
- Source of trace elements at levels compatible with the animals' daily requirements
- Contains ionic copper; a unique, form of copper
- Registered medicine



**LIST No**  
1COS006

**UNIT PACKAGE**  
20 Boluses

See reverse for Full Product Detail and Usage Instructions



# Cattle Bolus COSECURE™

## Continuous Release Intraruminal Device



### PRESENTATION

Each Continuous release intraruminal device contains: Copper 13.4 g, Cobalt 0.5 g, Selenium, as sodium selenate 0.3 g  
A cylindrical, blue glass continual release intraruminal device approximately 82mm x 24mm and weighing approximately 100g.

### TARGET SPECIES

Cattle (over 2 months and weighing at least 100kg bodyweight).

### INDICATIONS FOR USE

For prevention and treatment of copper and selenium deficiencies and for improvement of cobalt supply.

### AMOUNTS TO BE ADMINISTERED AND ADMINISTRATION ROUTE

Ruminating cattle over two months of age and weighing over 100 kg body weight: 2 boluses.

Administer orally using an oesophageal balling-gun, 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 gun 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.

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 at room temperature (15 - 20°C) prior to administration to prevent the development of fine cracks that may change the activity of the bolus.

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.

### WITHDRAWAL PERIOD

Cattle: Meat zero days; milk zero hours.

### CONTRAINDICATIONS

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

### SPECIAL PRECAUTIONS FOR USE IN ANIMALS

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

Prior to supplementation with any form of copper 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 six 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.

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### SPECIAL PRECAUTIONS TO BE TAKEN BY THE PERSON ADMINISTERING THE VETERINARY MEDICINAL PRODUCT

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

### ADVERSE REACTIONS

None known.

### USE DURING PREGNANCY OR LACTATION

The product may be administered to pregnant and lactating animals.

### INTERACTION WITH OTHER MEDICINAL PRODUCTS

None known.

### OVERDOSE

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.

### PHARMACODYNAMIC PROPERTIES

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

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.

### PHARMACOKINETIC PARTICULARS

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

### MAJOR INCOMPATIBILITIES

None known.

### SHELF-LIFE

Shelf-life of the veterinary medicinal product as packaged for sale: 3 years.

Shelf-life after first opening the immediate packaging: 6 months

### 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 PCV 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 VETERINARY MEDICINAL PRODUCTS

Any unused veterinary medicinal product or waste materials derived from such medicinal products should be disposed of in accordance with local requirements.

### MARKETING AUTHORISATION HOLDER

**Bimeda Animal Health Limited**  
2, 3 & 4 Airton Close, Airton Road  
Tallaght, Dublin 24, Ireland

### MARKETING AUTHORISATION NUMBER

VPA22033/054/001

### LEGAL CATEGORY

LM

TAKE TIME



OBSERVE LABEL  
DIRECTIONS

[www.bimeda.ie](http://www.bimeda.ie)

[cosecureboluses.com](http://cosecureboluses.com)