

# COSEICURE™ Sheep Bolus

## Continuous Release Intraruminal Device

### EACH BOLUS CONTAINS:

13.4% w/w copper

0.15% w/w selenium

0.5% w/w cobalt

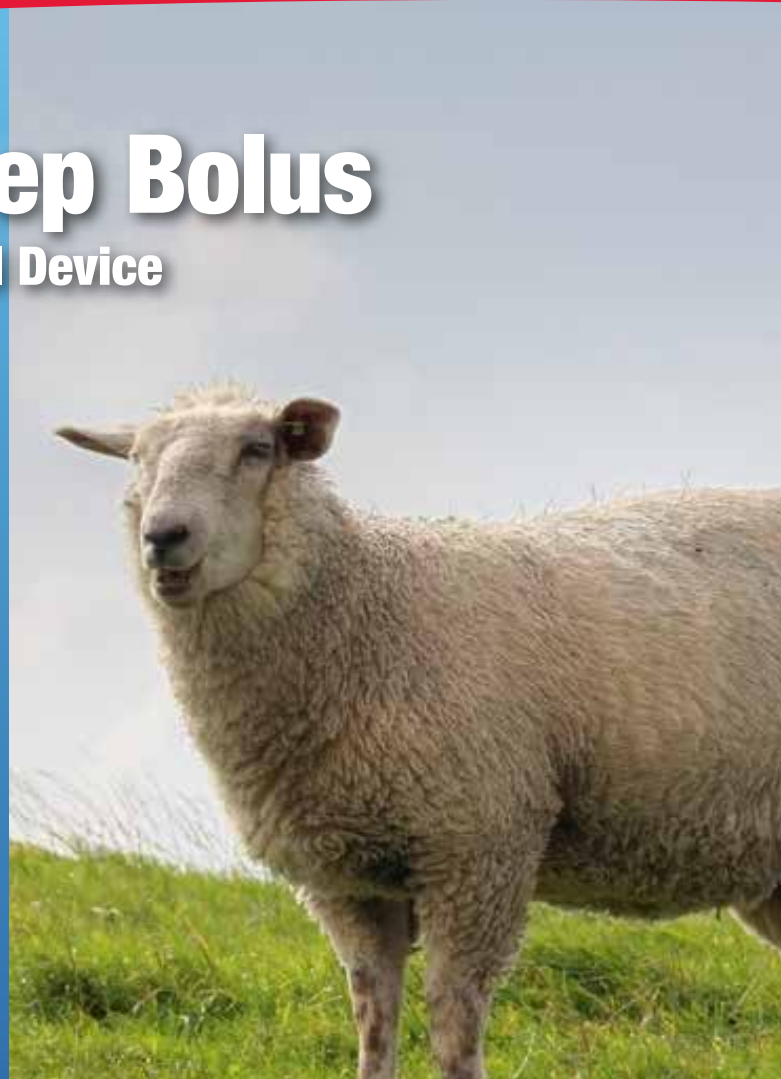
1.0% w/w iodine

### USES

For the supply of copper, cobalt, selenium and iodine in sheep over 30kg. The bolus supplies these trace elements at a controlled and constant rate for up to 8 months.

### 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 - the only soluble-glass bolus
- ✓ Unique **rumen-available** ionic copper formulation
- ✓ Unique **rumen-available** ionic cobalt formulation
- ✓ Delivers trace elements which are essential for ongoing health and fertility



**Revolutionary  
soluble glass  
technology**



LIST NO.	UNIT
1COS011	50 BOLUSES



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Global Excellence in Animal Health

Continuous Release Intraruminal Device

## PRESENTATION

Continuous release intraruminal device.

## USES

For the supply of copper, cobalt, selenium and iodine in sheep over 30kg. The bolus supplies these trace elements at a controlled and constant rate for up to 8 months.

## 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 the time of administration.**  
**Sheep over 30kg: 1 bolus**

For all classes of sheep over 30 kg live weight. One Coselcure bolus may be given at any convenient time in the sheep management year. It is particularly appropriate to give Coselcure 2 to 3 weeks prior to tupping for cover at this critical time, through to lambing and peak lactation.

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 bolus by holding the mouth closed and observing the animal for a short time. Gentle massage of the throat may facilitate swallowing of the boluses. To minimise the risk of regurgitation, avoid rough handling of animals.

In the event of suspected overdose see carton.

## CONTRA-INDICATIONS & WARNINGS

Do not administer to non-ruminating lambs or to animals weighing less than 30kg body weight.

## SPECIAL WARNING FOR EACH TARGET SPECIES

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

## i. SPECIAL PRECAUTIONS FOR USE

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

Do not feed copper supplemented rations nor feed stuffs high in naturally occurring copper to sheep receiving Coselcure nor administer copper or selenium by injection or copper orally while the boluses are still active (8 months), unless advised by a veterinary surgeon. In cases where the trace element status of a flock is uncertain it is advisable to seek veterinary advice. Do not administer to breeds known to be susceptible to copper toxicity.

Do not administer to sheep that are going to be housed for longer than 6 weeks prior to lambing. 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

Do not feed copper supplemented rations nor feed stuffs high in naturally occurring copper to sheep receiving Coselcure nor administer copper or selenium by injection or copper orally while the boluses are still active (8 months), unless advised by a veterinary surgeon.

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, after prolonged exposure, respiratory problems. In these circumstances, intravenous administration of copper and/or selenium chelating has been used.

## WITHDRAWAL PERIODS

Sheep: Meat zero days; milk zero hours

## PHARMACEUTICAL INFORMATION AND PRECAUTIONS

Pharmaco-therapeutic group: selenium combinations

## 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 8 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 B 12 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 ewes giving birth to 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 up to 8 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

Each foil pack contains 10 boluses; equivalent to 10 doses. 5 foils are provided per unit i.e 50 boluses per unit.

## 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:

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