

# Virbac

FOR ANIMAL USE ONLY

## MULTIMIN® + Se + Cu Cattle

Reg. No. G2144 (Act 36/1947)

FOR THE PREVENTION AND TREATMENT OF A DEFICIENCY IN ZINC AND / OR MANGANESE AND / OR SELENIUM AND / OR COPPER IN CATTLE.

ONLY AVAILABLE FROM A VETERINARIAN

### CAUTION

#### STORAGE INSTRUCTIONS:

Store in a cool place.

#### COMPOSITION:

Each ml contains:

Zinc.....	40 mg
Manganese.....	10 mg
Selenium.....	5 mg
Copper.....	15 mg

#### WARNINGS:

- **Do not use in any other animals.**
- Deficiencies in trace elements can only be diagnosed by professionals. This product is only available from a veterinarian.
- Selenium and copper toxicity can occur when an injectable product is used if selenium and copper levels are not established before use.
- A slight swelling may be observed at the injection site for a few days after administration.
- **Do not administer to animals in extreme poor body condition.**
- **Do not administer during extreme cold weather.**
- **Do not administer to animals with jaundice.**
- Keep out of reach of children, uninformed persons and animals.
- Although this remedy has been extensively tested under a large variety of conditions, failure thereof may ensue as a result of a wide range of reasons. If this is suspected, seek veterinary advice and notify the registration holder.

#### PRECAUTIONS:

Follow standard sterile procedures during administration of injections.

#### DOSAGE AND DIRECTIONS FOR USE:

Use only as directed

Inject cattle subcutaneously on the side of the neck.

#### Dosage:

**Calves:** 25 kg - 100 kg bodymass  
1 ml / 50 kg

#### Weaner Calves:

101 kg - 225 kg bodymass  
1 ml / 75 kg

#### Adult Cattle:

1 ml / 100 kg

#### Treat as follows:

**Bulls:** 3 times per year

**Cows:** 4 weeks prior to calving  
4 weeks prior to breeding / AI  
4 weeks prior to drying off

**Heifers:** Every 3 months until breeding

**Calves:** 4 weeks prior to weaning

**Additional:** If necessary, use an additional treatment during the rainy season.

#### GENERAL:

A primary zinc and / or manganese and / or selenium and / or copper deficiency probably occurs in Southern Africa on sandy and leached soils. On calciferous soils and in diets high in calcium, subclinical and even clinical deficiencies of zinc and / or manganese and / or selenium and / or copper can occur. As absorption of all these elements is impaired by calcium, it would be expected that secondary deficiencies could occur simultaneously. The availability of copper is also impaired by other elements in the diet such as molybdenum, iron, sulphur and inorganic sulphates in the drinking water.

Selenium is a critical trace element, which is deficient in many areas, albeit not well defined, in Southern Africa. High producing dairy cows are particularly susceptible to a selenium deficiency.

For this reason **MULTIMIN + Se + Cu Cattle** contains all four of these elements.

Use only if recommended by a veterinarian.

#### SIGNS:

Zinc and / or manganese and / or selenium and / or copper deficiencies cause impairment of fertility; however there are many other possible causes of reduced fertility and professional advice should be sought.

Skin lesions such as loss of hair and thickening of the skin (parakeratosis) may occur with a zinc deficiency.

In young animals, skeletal abnormalities such as enlarged joints, stiffness, twisted legs, weak hocks and general weakness may be due to a manganese deficiency.

A copper deficiency causes some characteristic symptoms such as sway back in young animals, anaemia and poor mineralisation of long bones. Nutritional muscular dystrophy (white muscle disease) particularly in young animals, which is also known as selenium responsive myopathy, is associated with low levels of selenium in animal tissues and glutathione peroxidase in the blood, but lack of enhancing substances like vitamin E, may be involved in precipitating the clinical disease.

In breeding animals early embryonic losses and the birth of weak offspring have inter alia been associated with a selenium deficiency. The incidence of retained placentas in cattle have been considerably reduced by selenium treatment.

#### PRESENTATION:

500 ml

#### REGISTRATION HOLDER:

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