Multimin® + Se Cattle, Sheep and Goats

Dosage form: Injectable solution.

Composition: Each ml contains: Zinc 40 mg, manganese 10 mg, selenium 5 mg.

Indications: For the prevention and treatment of a deficiency in zinc and/or manganese and/or selenium in cattle, sheep and angora goats.

CAUTION

Warnings:
• Do not use in any other animals.
• Deficiencies in trace elements can only be diagnosed by professionals. Before using this product, consult a veterinarian.
• Selenium toxicity can occur when an injectable product is used if selenium 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.
• It is a known fact that goats are sensitive to subcutaneous injections. In some cases outbreaks of clostridial infections (black quarter and malignant oedema) and anthrax can occur. It is advisable that animals be vaccinated against these diseases prior to the use of Multimin® + Se Cattle, Sheep and Goats. For this reason, users are advised to treat only 10 animals and observe them for 48 hours. Treatment of the whole flock/herd can be considered if no adverse signs in the treated animals are noted after 48 hours.
• 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.

Directions for use: Use only as directed. Inject cattle subcutaneously on the side of the neck. Inject sheep and angora goats subcutaneously on the area devoid of wool immediately behind the shoulder.

Dosage: Cattle
Calves: 25 kg - 100 kg body mass 1 ml/50 kg
Weaner calves: 101 kg - 225 kg body mass 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

Sheep and angora goats: 1 ml/50 kg

Treat as follows:
Rams: 3-4 months prior to breeding
Ewes: 4 weeks prior to breeding
4 weeks prior to lambing

Lambs and angora kids: 0,5 ml at weaning (minimum 25 kg body mass)
Thereafter 1 ml every 3 months until breeding

Additional: If necessary, use an additional treatment during the rainy season.
**General:** A primary zinc and/or manganese and/or selenium 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 can occur. As absorption of all these elements is impaired by calcium, it would be expected that secondary deficiencies could occur simultaneously. Selenium is a critical trace element, which is deficient in many areas, albeit not yet well defined, in Southern Africa. It plays an important role in the survival rate of newly-born lambs and kids. High-producing dairy cows are particularly susceptible to a selenium deficiency. For this reason **Multimin® + Se Cattle, Sheep and Goats** contains all three of these elements. If you have any doubts please contact your veterinarian.

**Signs:** Zinc and/or manganese and/or selenium 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 ("pluiswol" in wool sheep) and thickening of the skin (parakeratosis) may occur with a zinc deficiency. Black hair, particularly in young animals, which shows a rusty brown discolouration, could be an indication of a manganese 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. Nutritional muscular dystrophy (white muscle disease) particularly in young animals, which is also referred to 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 has been considerably reduced by selenium treatment.

**Presentation:** 100 ml and 500 ml.

**Storage instructions:** Store in a cool place.

**Registration number:** G1853 (Act 36/1947)