## BINECTIN PLUS 10/100 mg/ml Solution for Injection for Cattle Ivermectin 10mg/ml Clorsulon 100mg/ml

# DATA SHEET



## INDICATIONS

Licensed for wide range of internal and external parasites.

The product may also be used as an aid in the control of biting lice (*Damalinia bovis*) and the mange mite *Chorioptes bovis*.

## **BENEFITS**

- Broad spectrum treatment and control of internal and external parasites in cattle
- 3-in-1 solution for chronic fluke, worms and lice





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See reverse for administration & dosage

# **Bimectin Plus**



## Bimectin Plus, 10/100 mg/ml Solution for Injection for Cattle

#### Ivermectin 10mg/ml Clorsulon 100mg/ml

#### PRESENTATION

A clear colourless to pale yellow sterile non-aqueous solution for injection containing 10mg ivermectin and 100mg clorsulon per ml.

#### TARGET SPECIES Cattle

#### INDICATIONS FOR USE

The product is indicated for the treatment of mixed trematode and nematode or arthropod infestations of the following parasites:

Gastrointestinal roundworms (adult and fourth-stage Castronicestinal roundworms (adult and round-stage larvae): Ostertagia ostertagi (including inhibited larval stages), O. lyrate; Haemonchus placei; Trichostrongylus axei; T. colubriformis; Cooperia oncophora; C. punctata; C. pectinate; Bunostomum phlebotomum; Oesophagostamum radiatum; Strongyloides papillosus (adult); Nematodirus spathiger (adult), N. helvetianus (adult).

Lungworms (adult and fourth-stage larvae)

Dictyocaulus viviparus Liver fluke (adult): Fasciola hepatica Eye worms (adult): Thelazia spp Warbles (parasitic stages): Hypoderma bovis; H. lineatum Mange mites: Psoroptes bovis; Sarcoptes scabiei var. bovis Sucking lice: Linoqnathus vituli; Haematopinus eurysternus; Solenopotes capillatus.

The product may also be used as an aid in the control of biting lice (*Damalinia bovis*) and the mange mite *Chorioptes bovis*, but complete elimination may not occur. **Persistent activity:** The product given at the recommended dose controls re-infection with Haemonchus placei, Cooperia spp. and Trichostrongylus axei acquired up to 14 days after treatment, O. ostertagi and O. radiatum acquired up to 21 days after treatment and D. viviparus acquired up to 28 days áfter treatment.

#### CONTRAINDICATIONS

Do not use intramuscularly or intravenously.

This product is a low volume product authorised for use in cattle. It must not be used in other species as severe adverse reactions, including fatalities in dogs, may occur, especially Collies, Old English Sheepdogs and related breeds or crosses.

Do not use in cases of hypersensitivity to the active substance or to any of the excipients.

#### SPECIAL WARNINGS FOR TARGET SPECIES

Care should be taken to avoid the following practices because they increase the risk of development of resistance and could ultimately result in ineffective therapy:

 Too frequent and repeated use of anthelmintics from the same class, over an extended period of time.

• Underdosing, which may be due to underestimation of body weight, misadministration of the product, or lack of calibration of the dosing device.

Suspected clinical cases of resistance to anthelmintics should be further investigated using appropriate tests (e.g. Faecal Egg Count Reduction Test). Where the results of the test(s) strongly suggest resistance to a particular anthelmintic, an anthelmintic belonging to another pharmacological class and having a different mode of action should be used.

Resistance to Ivermectin has been reported in *O. ostertaqi* and Cooperia spp. in cattle within the EU. Therefore, the use of this product should be based on local (regional, farm) epidemiological information about susceptibility of these helminth species and recommendations on how to limit further selection for resistance to anthelmintics.

#### SPECIAL PRECAUTIONS FOR USE IN ANIMALS

This product does not contain any antimicrobial preservative. Swab septum before removing each dose.

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

Do not smoke or eat whilst handling the product. Wear gloves and glasses when handling the veterinary



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medicinal product. Direct contact with the skin should be avoided. Wash hands after use.

Take care to avoid self-injection: the product may cause local irritation and/or pain at the injection site. In case of accidental self-injection, seek medical advice immediately and show the package leaflet to the physician.

#### **OTHER PRECAUTIONS**

The product is very toxic to aquatic organisms and dung insects. Treated cattle should not have direct access to ponds, streams or ditches for 14 days after treatment. Long term effects on dung insects caused by continuous of repeated use cannot be excluded. Therefore repeat treatments on a pasture within a season should only be given on the advice of a veterinarian.

#### **ADVERSE REACTIONS**

Transitory discomfort has been observed in some cattle following subcutaneous administration. A low incidence of soft tissue swelling at the injection site has been observed. These reactions disappeared without treatment.

#### **USE DURING PREGNANCY AND LACTATION**

Can be used in pregnancy and lactation. (See withdrawal periods). Can be used in breeding animals.

#### INTERACTION WITH OTHER MEDICINAL PRODUCTS None known.

#### AMOUNTS TO BE ADMINISTERED AND ADMINISTRATION ROUTE

Dosage and duration of treatment: 200µg ivermectin and 2mg clorsulon per kg bodyweight corresponding to a single dose of 1ml per 50kg bodyweight.

**Method of administration:** The product should be administered only by subcutaneous injection under the loose skin in front of or behind the shoulder. Divide doses in excess of 10 ml between different injection

sites and use different sites to those used for other parenteral medications.

When the temperature of the product is below 5°C, difficulty in administration may be encountered us to increased viscosity. Warming the product and injection equipment to about 15°C will greatly increase the ease

with which the product can be injected. When using the 500ml pack size use only automatic syringe equipment. For the 50ml pack size, use of a multidose syringe is recommended. Replace with a fresh sterile needle after every 10-12 animals or sooner if the needle becomes soiled.

The timing of treatment should be based on epidemiological factors and should be customised for each individual farm. A dosing program should be established by a qualified professional person.

To ensure a correct dosage, body weight should be determined as accurately as possible; accuracy of the dosing device should be checked.

If animals are to be treated collectively rather than individually, to avoid under- or over-dosing, they should be grouped according to their bodyweight and dosed accordingly.

#### OVERDOSE

A dose of 25ml product per 50kg bodyweight (25 times the recommended dose level) may result in an injection site lesions, including tissue necrosis, oedema, fibrosis and inflammation. No other reactions have been observed.

WITHDRAWAL PERIODS Meat and offal: 66 days

Milk: Do not use in cattle producing milk for human consumption. Do not use in non-lactating dairy cows including pregnant heifers within 60 days of calving.

#### PHARMACODYNAMIC PROPERTIES

Ivermectin is a member of the macrocyclic lactone class of endectocides and has a unique mode of action. It has broad and potent antiparasitic activity. It binds selectively

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and with high affinity to glutamate-gated chloride ion channels which occur in invertebrate nerve and muscle cells. This leads to an increase in the permeability of the cell membrane to chloride ions with hyperpolarisation of the nerve or muscle cell, resulting in paralysis and death of the parasite. Compounds of this class may also interact with other ligand-gated chloride channels such as those gated by the neurotransmitter gamma-amino-butyric acid (GABA).

The margin of safety for compounds of this class is attributable to the fact that mammals do not have glutamate-gated chloride channels, that the macrocyclic lactones have a low affinity for other mammalian ligand-gated chloride channels and they do not readily cross the blood-brain barrier.

Clorsulon is rapidly absorbed in the blood stream. It is bound to the erythrocytes and plasma which are ingested by the fluke. Clorsulon inhibits the glycolytic enzymes in the fluke and deprives it of its main source of metabolic energy.

#### PHARMACOKINETIC PROPERTIES

After subcutaneous administration of 2mg clorsulon and 0.2mg ivermectin per kg bodyweight, the plasma profile demonstrates a slow, steady absorption of ivermectin reaching Cmax in plasma reached at a median time of 1.50 days. In contrast, clorsulon appeared rapidly absorbed with Cmax reached at a median time of 0.25 days. The T ½ for lvermectin is approximately 3.79 days and for Clorsulon approximately 3.58 days

#### **EXCIPIENTS**

Glycerol formal, Propylene glycol, Monoethanolamine (for pH adjustment)

#### INCOMPATIBILITIES

In the absence of compatibility studies, this veterinary medicinal product must not be mixed with other veterinary medicinal products.

#### SHELE LIFE

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

Shelf-life after first opening the immediate packaging: 28 days

#### STORAGE

Keep the container in the outer carton in order to protect from light.

EXTREMELY DANGEROUS TO FISH AND AQUATIC LIFE. Do not contaminate surface waters or ditches with the product or used container. Any unused veterinary medicinal product or waste materials dérived from such véterinary medicinal products should be disposed of in accordance with local . reauirements.

## LEGAL CATEGORY POM-VPS

MARKETING AUTHORISATION NUMBER Vm 50146/4003

#### MARKETED IN THE UK BY

Bimeda UK Unit 2, Bryn Cefni Industrial Park Llangefni, Anglesey, Wales, LL77 7XA

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