

SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Robonex 5mg/ml Pour-On Solution for Dairy cattle and cattle for meat production

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Per ml :

Active Substance:

Eprinomectin 5mg

Excipients:

Qualitative composition of excipients and other constituents	Quantitative composition if that information is essential for proper administration of the veterinary medicinal product
Butylated Hydroxytoluene (E321)	0.1 mg
Cetearyl Ethylhexanoate and Isopropyl Myristate	
Propylene Glycol Dicaprylocaprate	
Denatonium Benzoate	
Isopropyl Alcohol	

A clear to very light yellow solution.

3. CLINICAL INFORMATION

3.1 Target species

Cattle (dairy, for meat production)

3.2 Indications for use for each target species

For the treatment and prevention of the following parasites:

Gastrointestinal Roundworms (adults and fourth stage larvae):

Ostertagia spp.,

Ostertagia lyrata (adult),

Ostertagia ostertagi (including inhibited *O. ostertagi*),

Cooperia spp. (including inhibited *Cooperia* spp),

Cooperia oncophora,

Cooperia pectinata, *Cooperia punctata*,
Cooperia surnabada,
Haemonchus placei,
Trichostrongylus spp.,
Trichostrongylus axei,
Trichostrongylus colubriformis,
Bunostomum phlebotomum,
Nematodirus helvetianus,
Oesophagostomum spp. (adult),
Oesophagostomum radiatum,
Trichuris spp (adult).

Lungworms (adults and fourth stage larvae):
Dictyocaulus viviparus

Warbles (parasitic stages):
Hypoderma bovis, *H. lineatum*

Mange Mites:
Chorioptes bovis, *Sarcoptes scabiei* var *bovis*

Lice:
Damalinia (Bovicola) bovis (biting lice),
Linognathus vituli (sucking lice),
Haematopinus eurysternus (sucking lice),
Solenopotes capillatus (sucking lice).

Horn Flies:
Haematobia irritans.

Prolonged Activity

Applied as recommended, the product prevents reinfections with:

<u>Parasite *</u>	<u>Prolonged Activity</u>
<i>Dictyocaulus viviparus</i>	up to 28 days
<i>Ostertagia</i> spp	up to 28 days
<i>Oesophagostomum radiatum</i>	up to 28 days
<i>Cooperia</i> spp	up to 21 days
<i>Trichostrongylus</i> spp	up to 21 days
<i>Haemonchus placei</i>	up to 14 days
<i>Nematodirus helvetianus</i>	up to 14 days

*The following parasite species are included within each of the relevant genera:
Ostertagia ostertagi, *O. lyrata*, *Cooperia oncophora*, *C. punctata*, *C. surnabada*,
Trichostrongylus axei, *T. colubroformis*.

3.3 Contraindications

Do not administer orally or by injection.

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

Do not use in dogs, as avermectins can cause fatalities in some dog breeds.

3.4 Special Warnings

If there is a risk for re-infestation, the advice of a veterinarian should be sought regarding the need for and frequency of repeat administration.

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 bodyweight, misadministration of the product, or lack of calibration of the dosing device (if any).

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.

To date no resistance to eprinomectin (a macrocyclic lactone) has been reported within the EU. However resistance to other macrocyclic lactones has been reported in parasite species in cattle within the EU. Therefore, use of this product should be based on local (regional, farm) epidemiological information about susceptibility of nematodes and recommendations on how to limit further selection for resistance to anthelmintics.

While mite and louse numbers decline rapidly following treatment, due to the feeding habits of the parasites, in some cases several weeks may be required for complete eradication.

For effective use, the veterinary medicinal product should not be applied to areas of the backline covered with mud or manure.

Rainfall at any time before or after treatment will not affect the efficacy of the product.

For the best results the veterinary medicinal product should be part of a program to control both internal and external parasites of cattle based on the epidemiology of these parasites.

3.5 Special precautions for use

Special precautions for use in the target species:

The product should be applied only to healthy skin.

Special precautions to be taken by the person administering the veterinary medicinal product to animals:

This product may be irritating to human skin and eyes and may cause hypersensitivity.

Avoid skin and eye contact with the product during treatment and when handling recently treated animals.

Personal Protective equipment consisting of gloves, boots and a waterproof coat should be worn when applying the product.

Should clothing become contaminated, remove as soon as possible and launder before re-use.

If accidental skin contact occurs, wash the affected area immediately with soap and water.

If accidental eye exposure occurs, flush eyes immediately with water.

This product may be toxic after accidental ingestion.

Avoid accidental ingestion of the product by hand to mouth contact.

Do not smoke, eat or drink while handling the product.

In the event of ingestion, wash out mouth with water and seek medical advice.

Wash hands after use.

This product is flammable. Keep away from sources of ignition.

Inhalation of the product may cause irritation.

Use only in well ventilated areas or outdoors.

Special precautions for the protection of the environment:

Eprinomectin is very toxic to dung fauna and aquatic organisms and may accumulate in sediments.

The risk to aquatic ecosystems and dung fauna can be reduced by avoiding too frequent and repeated use of eprinomectin (and products of the same anthelmintic class) in cattle.

The risk to aquatic ecosystems will be further reduced by keeping treated cattle away from water bodies for two to four weeks after treatment.

3.6 Adverse reactions (frequency and seriousness)

Cattle:

Very rare (<1 animal / 10,000 animals treated, including isolated reports):	Pruritus; Alopecia
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Reporting adverse events is important. It allows continuous safety monitoring of a veterinary medicinal product. Reports should be sent, preferably via a veterinarian, to either the marketing authorisation holder or the national competent authority via the national reporting system. See the package leaflet for respective contact details.

3.7 Use during pregnancy, lactation or lay

Pregnancy and lactation :

May be used in dairy cattle during all stages of lactation.

Studies have demonstrated a wide safety margin. Studies conducted at three times the recommended use level of 0.5 mg eprinomectin/kg b.w. had no adverse effect on breeding performance of cows or bulls.

3.8 Interaction with other medicinal products and other forms of interaction

None known.

3.9 Administration routes and dosage

Administer only by topical application at the dose rate of 1 ml per 10 kg of body weight, corresponding to the recommended dose rate of 0.5 mg eprinomectin per kg b.w. The product should be applied topically by pouring along the backline in a narrow strip extending from the withers to the tailhead.

To ensure administration of a correct dose, bodyweight should be determined as accurately as possible; accuracy of the dosing device (dosing cup or dosing gun delivery system) should be checked.

3.10 Symptoms of overdose (and where applicable, emergency procedures and antidotes)

In adult cattle, after administration of 5 times the recommended dose (2.5 mg eprinomectin/kg body weight), mild hair loss was observed. No other signs of toxicity were seen.

No antidote has been identified.

3.11 Special restrictions for use and special conditions for use, including restrictions on the use of antimicrobial and antiparasitic veterinary medicinal products in order to limit the risk of development of resistance

Not applicable.

3.12 Withdrawal period(s)

Meat & offal: 10 days

Milk: zero hours.

4. PHARMACOLOGICAL INFORMATION

4.1 ATC Vet Code: QP54AA04

4.2 Pharmacodynamics

Mode of action

Eprinomectin is a member of the macrocyclic lactone class of endectocides. Compounds of the class bind selectively and with high affinity to glutamate-gated chloride ion channels which occur in invertebrate nerve or muscle cells. This leads to an increase in the permeability of the cell membrane to chloride ions with hyperpolarization 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-aminobutyric 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; the macrocyclic lactones have a low affinity for other mammalian ligand-gated chloride channels, and they do not readily cross the blood-brain barrier.

4.3 Pharmacokinetics

The bioavailability of topically applied eprinomectin in cattle is about 30% with most absorption occurring by about 10 days after treatment. Eprinomectin is not extensively metabolized in cattle following topical administration. In all biological matrices, the B_{1a} component of eprinomectin is the single most abundant residue.

Eprinomectin consists of the components B_{1a} ($\geq 90\%$) and B_{1b} ($\leq 10\%$) which differ by a methylene unit and is not extensively metabolized in cattle. Metabolites amount to approximately 10% of the total residues in plasma, milk, edible tissues and faeces.

The metabolism profile is nearly identical, qualitatively and quantitatively, in the above biological matrices and does not change significantly with time after administration of eprinomectin. The percent contribution of B_{1a} and B_{1b} to the overall metabolite profile remains constant. The ratio of the two drug components in the biological matrices is identical to that in the formulation demonstrating that the two eprinomectin components are metabolized with nearly equal rate constants. Since the metabolism and the tissue distribution of the two components are quite similar, the pharmacokinetics of the two components would be also similar.

Eprinomectin is strongly linked to plasma proteins (99%). Faeces is the major route of elimination.

Environmental properties

Like other macrocyclic lactones, eprinomectin has the potential to adversely affect non-target organisms. Following treatment, excretion of potentially toxic levels of eprinomectin may take place over a period of several weeks. Faeces containing eprinomectin excreted onto pasture by treated animals may reduce the abundance of dung feeding organisms which may impact on the dung degradation.

Eprinomectin is very toxic to aquatic organisms and may accumulate in sediments.

5. PHARMACEUTICAL PARTICULARS

5.1 Major Incompatibilities

None known.

5.2 Shelf life

Shelf-life of the veterinary medicinal product as packaged for sale: 2 years.
Shelf-life after first opening the immediate packaging: 3 months.

5.3 Special precautions for storage

Do not store above 30°C.
Keep the container in the outer carton.
Protect from light.

5.4 Nature and composition of immediate packaging

The veterinary medicinal product will be supplied in translucent 250 mL and 1L HDPE containers with integral squeeze measure pour system and white HDPE screw caps.

White 1L, 2.5L and 5L HDPE backpacks and white polypropylene screw caps.

Not all packs sizes may be marketed.

5.5 Special precautions for the disposal of unused veterinary medicinal product or waste materials derived from the use of such products

Medicines should not be disposed of via wastewater.

The veterinary medicinal product should not enter water courses as eprinomectin may be dangerous for fish and other aquatic organisms.

Use take-back schemes for the disposal of any unused veterinary medicinal product or waste materials derived thereof in accordance with local requirements and with any national collection systems applicable to the veterinary medicinal product concerned.

6. NAME OF THE MARKETING AUTHORISATION HOLDER

Norbrook Laboratories Limited

7. MARKETING AUTHORISATION NUMBER

Vm 02000/4340

8. DATE OF FIRST AUTHORISATION

26 March 2013

9. DATE OF REVISION OF THE SUMMARY OF THE PRODUCT CHARACTERISTICS

January 2025

10. CLASSIFICATION OF VETERINARY MEDICINAL PRODUCTS

Veterinary medicinal product subject to prescription.

Find more product information by searching for the 'Product Information Database' on www.gov.uk.

Gavin Hall
Approved: 25 July 2025