Summary of Product Characteristics

1 NAME OF THE VETERINARY MEDICINAL PRODUCT

Eprecis 5 mg/ml pour-on solution for cattle

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains:

Active substance:
Eprinomectin ..... 5.0 mg

Excipients:
Butylhydroxytoluene (E321) ..... 0.10 mg
all-rac-α-tocopherol (E307) ..... 0.06 mg

For the full list of excipients, see section 6.1

3 PHARMACEUTICAL FORM

Pour-on solution.
Pale yellow to yellow clear solution.

4 CLINICAL PARTICULARS

4.1 Target Species

Cattle (beef and dairy cattle).

4.2 Indications for use, specifying the target species

Treatment of infestations by the following internal and external parasites sensitive to eprinomectin:

	Adult	***L4***	***Inhibited L4***
Gastrointestinal roundworms			
Ostertagia ostertagi	●	●	●
Ostertagia lyrata	●		
Ostertagia spp.	●	●	
Cooperia oncophora	●	●	
Cooperia pectinata	●	●	
Cooperia surnabada	●	●	
Cooperia punctata	●	●	
Cooperia spp.	●	●	●
Haemonchus placei	●	●	
Trichostrongylus axei	●	●	
Trichostrongylus colubriformis	●	●	
Trichostrongylus spp.	●	●	
Bunostomun phlebotomum	●	●	
Nematodirus helvetianus	●	●	
Oesophagostomum radiatum	●	●	
Oesophagostomum spp.	●		
Trichuris spp.	●		
Lungworms			
Dictyocaulus viviparus	●	●	

Warbles (parasitic stages): *Hypoderma bovis, Hypoderma lineatum;*
Mange mites: *Chorioptes bovis, Sarcoptes scabiei* var. *bovis;*
Sucking lice: *Linognathus vituli, Haematopinus eurysternus, Solenopotes capillatus*;
Biting lice: *Damalinia (Bovicola) bovis*;
Flies: *Haematobia irritans.*

Prevention of reinfestations:
The product protects the animals against reinfestations with:
- *Nematodirus helvetianus* for 14 days.
- *Trichostrongylus axei* and *Haemonchus placei* for 21 days.
- *Dictyocaulus viviparus, Cooperia oncophora, Cooperia punctata, Cooperia surnabada, Oesophagostomum radiatum* and *Ostertagia ostertagi* for 28 days.

4.3 Contraindications

This veterinary medical product is formulated only for topical application for beef and dairy cattle, including lactating dairy cattle.
Do not administer orally or by injection.
Do not use in other animal species.
Do not use in cases of hypersensitivity to the active substance or to any of the excipient(s).

4.4 Special warnings for each target species

If there is a risk for re- infection, 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 body weight, 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.

4.5 Special precautions for use

Special precautions for use in animals
For external use only.
For effective use, the product should not be applied to areas of the backline covered with mud or manure.
The product should be applied only on healthy skin.
Not to be used in other species; avermectins can cause fatalities in dogs, especially Collies, Old English Sheepdogs and related breeds and crosses, and also in turtles/tortoises.
To avoid adverse reactions due to the death of warble larvae in the oesophagus or backbone, it is recommended to administer the product after the end of warble fly activity and before the larvae reach their resting sites in the body; consult a veterinary surgeon regarding the appropriate time for treatment.

The details provided in overdose section apply.

Special precautions to be taken by the person administering the veterinary medicinal product to animals
Avoid direct contact with the skin or eyes.
Wear rubber gloves and protective clothing when applying the product.
If accidental skin contact occurs, wash the affected area immediately with soap and water.
If accidental eye exposure occurs, flush eyes immediately with water.
Do not smoke or eat while handling the veterinary medicinal product.
Wash hands after use. Should clothing become contaminated, remove as soon as possible and launder before re-use. In the event of ingestion, wash out mouth with water and seek medical advice.
People with known hypersensitivity to the active substance or to any of the excipients should avoid contact with the veterinary medicinal product.

Other precautions
Eprinomectin is very toxic to aquatic organisms, is persistent in soils 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 five weeks after treatment.

4.6 Adverse reactions (frequency and seriousness)

No undesirable effects have been identified when the product is used at the recommended dose rate.

4.7 Use during pregnancy, lactation or lay

Laboratory studies (rat, rabbit) have not produced any evidence of teratogenic or embryotoxic effects due to the use of eprinomectin at therapeutic doses. The safety of eprinomectin in cattle has been established during pregnancy and lactation and in reproductive bulls.
Can be used during pregnancy and lactation as well as in reproductive bulls.

4.8 Interaction with other medicinal products and other forms of interaction

Since eprinomectin binds strongly to plasma proteins, this should be taken into account if it is used in association with other molecules having the same characteristics.

4.9 Amounts to be administered and administration route

Pour-on use.

Administer only by topical application at the dose rate of 1 ml of the veterinary medicinal product per 10 kg of body weight, corresponding to the recommended dose rate of 0.5 mg eprinomectin per kg b.w. The veterinary medicinal product should be applied 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 and accuracy of the dosing device should be checked. If animals are to be treated collectively rather than individually, they should be grouped according to their bodyweight and dosed accordingly, in order to avoid under- and overdosing.

All the animals belonging to the same group should be treated at the same time.

Method of Administration:

<u>For the 250 ml presentation:</u>
The bottle is equipped with an integrating dosing system, and has two openings. One opening is connected to the body of the container and the other one to the dispensing chamber (dosing system).
Unscrew the tamper-evident cap and remove the seal of the dispensing chamber (integrated dosing system allowing 5-ml doses and 10-ml doses).
Squeeze the bottle to fill the dispensing chamber with the required volume of product.

<u>For the 1 L, 2.5 L and 5 L presentations:</u>

To be used with an appropriate dosing system such as a dosing gun and coupling vented cap.
Unscrew the polypropylene (PP) simple cap. Remove the protective seal from the bottle. Screw a coupling vented cap on the bottle and make sure it is tightened. Connect the other side to a dosing gun. Follow the gun manufacturer’s instructions for adjusting the dose and proper use and maintenance of the dosing gun and vented cap.
After use, coupling vented caps should be removed and replaced by PP simple cap.

4.10 Overdose (symptoms, emergency procedures, antidotes), if necessary

No signs of toxicity appeared when 8-week old calves were treated at up to 5x the therapeutic dose (2.5 mg Eprinomectin/kg b.w.) 3 times at 7-day intervals.
One calf treated once at 10x the therapeutic dose (5 mg/kg b.w.) in the tolerance study showed transient mydriasis. There were no other adverse reactions to treatment.
No antidote has been identified.

4.11 Withdrawal Period(s)

Meat and offal: 15 days
Milk: zero hours

5 PHARMACOLOGICAL or IMMUNOLOGICAL PROPERTIES

Pharmacotherapeutic group: endectocides, macrocyclic lactones, avermectins
ATC vet code: QP54AA04

5.1 Pharmacodynamic properties

Eprinomectin is a member of the macrocyclic lactone class of endectocides.
Compounds of this 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.

5.2 Pharmacokinetic properties

The bioavailability of topically applied eprinomectin in cattle is about 30% with most absorption occurring within 10 days after treatment. Eprinomectin is not extensively metabolized in cattle following topical administration. In all biological matrices, the B1a component of eprinomectin is the single most abundant residue.
Eprinomectin consists of the components B_{1a} (≥ 90 %) and B_{1b} (≤ 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.

5.3 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, is persistent in soils and may accumulate in sediments.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Butylhydroxytoluene (E321)
all-rac-α-tocopherol (E307)
Propylene glycol dicaprylocaprate

6.2 Incompatibilities

None known.

6.3 Shelf-life

Shelf-life of the veterinary medicinal product as packaged for sale: 30 months.
Shelf-life after first opening the immediate packaging: 6 months.

6.4 Special precautions for storage

250 ml: keep the bottle in the outer carton in order to protect from light.
1 L, 2.5 L, 5 L: no special storage conditions are required.

6.5 Nature and composition of immediate packaging

-Squeeze-measure pour-on system:
250 ml translucent high density polyethylene (HDPE) bottle including 10 ml dispenser graduated each 5 ml, with removable aluminium/PE seals and PE screw cap.

-Back pack:
1 L, 2.5 L and 5 L white HDPE bottles, with a removable aluminium/PE seal and a polypropylene (PP) screw cap.

<?xml:namespace prefix = st1 ns = "urn:schemas-microsoft-com:office:smarttags" /><st1:PlaceName w:st="on" ProductID="1 L">1 L</st1:PlaceName>, <st1:PlaceName w:st="on" ProductID="2.5 L">2.5 L</st1:PlaceName> or 5 L white HDPE bottles, with a removable aluminium/PE seal and a polypropylene (PP) screw cap included in a cardboard box.

Not all pack sizes may be marketed.

6.6 Special precautions for the disposal of unused veterinary medicinal products or waste materials

The veterinary medicinal product is dangerous for aquatic organisms. Do not contaminate lakes and streams with the veterinary medicinal product or with used containers.

Any unused veterinary medicinal product or waste materials derived from such veterinary medicinal product should be disposed of in accordance with local requirements.

7 MARKETING AUTHORISATION HOLDER

Ceva Santé Animale
10 Av. de la Ballastiere
33500 Libourne
France

8 MARKETING AUTHORISATION NUMBER(S)

VPA 10815/025/001

9 DATE OF THE FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 21st August 2015

10 DATE OF REVISION OF THE TEXT