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**DECENTRALISED PROCEDURE**

**PUBLICLY AVAILABLE ASSESSMENT REPORT  
FOR A VETERINARY MEDICINAL PRODUCT**

**NEOPRINIL POUR-ON 5 mg/ml pour-on solution for cattle**

**Date: 03/03/2014**

**MODULE 1****PRODUCT SUMMARY**

EU Procedure number	FR/V/0255/001/DC
Name, strength and pharmaceutical form	NEOPRINIL POUR-ON 5 mg/ml pour-on solution for cattle.
Applicant	VIRBAC
Active substance(s)	Eprinomectin
ATC Vetcode	QP54AA04.
Target species	Beef and dairy cattle.
Indication for use	<p>Treatment of infestations by the following parasites sensitive to eprinomectin:</p> <p><u>Gastrointestinal roundworms (adults and L4 larvae):</u> <i>Ostertagia ostertagi</i> (including inhibited L4 larvae), <i>Ostertagia lyrata</i> (only adults), <i>Haemonchus placei</i>, <i>Trichostrongylus axei</i>, <i>Trichostrongylus colubriformis</i>, <i>Cooperia</i> sp. (including inhibited L4), <i>Cooperia oncophora</i>, <i>Cooperia punctata</i>, <i>Cooperia pectinata</i>, <i>Cooperia surnabada</i>, <i>Bunostomum phlebotomum</i>, <i>Nematodirus helvetianus</i>, <i>Oesophagostomum radiatum</i>, <i>Oesophagostomum</i> sp. (only adults), <i>Trichuris discolor</i> (only adults);</p> <p><u>Lungworms:</u> <i>Dictyocaulus viviparus</i> (adults and L4);</p> <p><u>Warbles (parasitic stages):</u> <i>Hypoderma bovis</i>, <i>Hypoderma lineatum</i>;</p> <p><u>Mange mites:</u> <i>Chorioptes bovis</i>, <i>Sarcoptes scabiei</i> var. <i>Bovis</i>;</p> <p><u>Sucking lice:</u> <i>Linognathus vituli</i>, <i>Haematopinus eurytarnus</i>, <i>Solenopotes capillatus</i>;</p> <p><u>Biting lice:</u> <i>Damalinia bovis</i>;</p> <p><u>Flies:</u> <i>Haematobia irritans</i>.</p> <p>The product protects the animals against reinfestations with:</p> <ul style="list-style-type: none"><li>- <i>Nematodirus helvetianus</i> for 14 days.</li><li>- <i>Trichostrongylus axei</i> and <i>Haemonchus placei</i> for 21 days.</li><li>- <i>Dictyocaulus viviparus</i>, <i>Cooperia oncophora</i>, <i>Cooperia punctata</i>, <i>Cooperia surnabada</i>, <i>Oesophagostomum radiatum</i> and <i>Ostertagia ostertagi</i> for 28 days.</li></ul>

**MODULE 2**

The Summary of Product Characteristics (SPC) for this product is available on the website <http://www.anmv.anses.fr/>

**MODULE 3****PUBLIC ASSESSMENT REPORT**

Legal basis of original application	Generic application in accordance with Article 13 (1) of Directive 2001/82/EC as amended.
Date of completion of the original decentralised procedure	23/12/2014
Concerned Member States for original procedure	AT, BE, BG, CY, CZ, DE, DK, EE, EL, ES, FI, HU, IE, IT, LV, LT, LU, NL, NO, PL, PT, RO, SE, SI, SK, UK

**I. SCIENTIFIC OVERVIEW**

The product is produced and controlled using validated methods and tests, which ensure the consistency of the product released on the market.

It has been shown that the product can be safely used in the target species; the slight reactions observed are indicated in the SPC.

The product is safe for the user, the consumer of foodstuffs from treated animals and for the environment, when used as recommended. Suitable warnings and precautions are indicated in the SPC.

The efficacy of the product was demonstrated according to the claims made in the SPC.

The overall risk/benefit analysis is in favour of granting a marketing authorisation.

**II. QUALITY ASPECTS****A. Composition**

The product contains eprinomectin as the active substance and excipients all-rac- $\alpha$ -tocopherol, butylated hydroxytoluene and propylene glycol dicaprylocaprate.

The product is a pour-on solution supplied in white opaque HDPE bottles/cans or multi-layer flexible pouches. The particulars of the containers and controls performed are provided and conform to the regulation.

The product is an established pharmaceutical form and its development is adequately described in accordance with the relevant European guidelines.

**B. Method of Preparation of the Product**

The product is manufactured fully in accordance with the principles of good manufacturing practice from a licensed manufacturing site.

Process validation data on the product have been presented in accordance with the relevant European guidelines.

**C. Control of Starting Materials**

The active substance is eprinomectin, an established active substance. The active substance is manufactured in accordance with the principles of good manufacturing practice. The active substance specification is considered adequate to control the quality of the material. Batch analytical data demonstrating compliance with this specification have been provided.

**D. Specific Measures concerning the Prevention of the Transmission of Animal Spongiform Encephalopathies**

There are no substances within the scope of the TSE Guideline present or used in the manufacture of this product.

**E. Control on intermediate products**

Not applicable.

**F. Control Tests on the Finished Product**

The finished product specification controls the relevant parameters for the pharmaceutical form. The tests in the specification, and their limits, have been justified and are considered appropriate to adequately control the quality of the product.

Satisfactory validation data for the analytical methods have been provided.

Batch analytical data from the proposed production site have been provided demonstrating compliance with the specification.

**G. Stability**

Stability data on the active substance have been provided in accordance with applicable European guidelines, demonstrating the stability of the active substance when stored under the approved conditions.

Stability data on the finished product have been provided in accordance with applicable European guidelines, demonstrating the stability of the product throughout its shelf life when stored under the approved conditions.

An in-use shelf-life as detailed on the SPC has been supported by appropriate data.

**H. Genetically Modified Organisms**

Not applicable.

**J. Other Information**

Not applicable.

**III. SAFETY AND RESIDUES ASSESSMENT (PHARMACO-TOXICOLOGICAL)**

**III.A Safety Testing**

**Pharmacological Studies**

The test product is bioequivalent to the reference product, EPRINEX POUR ON 5 MG/ML marketed by MERIAL. An exemption from the requirement to provide a bioequivalence study was accepted as formulations of the tested and the reference products are similar.

As this is a generic application according to Article 13, and bioequivalence with a reference product has been demonstrated, results of pharmacological tests are not required.

The pharmacological aspects of this product are identical to the reference product.

### ***Toxicological Studies***

As this is a generic application according to Article 13, and bioequivalence with a reference product has been demonstrated, results of toxicological tests are not required.

The toxicological aspects of this product are identical to the reference product.

### ***User Safety***

The applicant has provided a user safety assessment in compliance with the relevant guideline.

Warnings and precautions as listed on the product literature are adequate to ensure safety to users of the product.

### ***Ecotoxicity***

The applicant provided Phase II risk assessments. The assessment concluded that warnings are necessary:

#### **iii) Other precautions**

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

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 three weeks after treatment.

### **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 and may accumulate in sediments. Eprinomectin is persistent in soils.

## ***III.B Residues documentation***

### ***Residue Studies***

As the candidate product has a similar formulation than the reference product, contains same excipients in similar amounts and is indicated in the same species at the same regimen dosage, the results of residue studies are not required.

### ***MRLs***

#### **a. active substances**

The active substance, eprinomectin, is included in table 1 of the MRL regulation 470/2009, as follows:

EPRINOMECTIN (ADI: 5 µg/kg)						
Marker residue	Animal Species	MRL	Target Tissues	Other Provisions	Therapeutic Classification	Regulation
Eprinomectin B1a	Bovine	50 µg/kg 250 µg/kg 1 500 µg/kg 300 µg/kg 20 µg/kg	Muscle Fat Liver Kidney Milk	No entry	Antiparasitic agents/ Agents against endo and ectoparasites	37/2010 of 22.12.2009

## b. excipients

The MRL status of excipients of the product is indicated in the following table:

Excipient	MRL status	ADI
Butylhydroxytoluene	Table 1, no MRL required	-
All rac Alpha Tocopherol	Table 1, no MRL required	-
Propylene glycol dicaprylocaprate	Table 1, no MRL required	

## **Withdrawal Periods**

The withdrawal periods of the reference product will be applied to the tested product:

Meat and offal: 15 days.

Milk: zero hours.

## IV. CLINICAL ASSESSMENT (EFFICACY)

### **IV.A Pre-Clinical Studies**

#### **Tolerance in the Target Species of Animals**

The applicant has not provided a tolerance study which is acceptable because the tested product and the reference product are bioequivalent and their formulations are similar.

### **IV.B Clinical Studies**

As this is a generic application according to Article 13, and bioequivalence with a reference product has been demonstrated, efficacy studies are not required. The efficacy claims of the tested product are based on the reference product documentation.

## V. OVERALL CONCLUSION AND BENEFIT– RISK ASSESSMENT

The data submitted in the dossier demonstrate that when the product is used in accordance with the Summary of Product Characteristics, the risk benefit profile for the target species is favourable and the quality and safety of the product for humans and the environment is acceptable.