



ASSURING THE SAFETY, QUALITY AND EFFICACY  
OF VETERINARY MEDICINES

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(Reference Member State)

DECENTRALISED PROCEDURE

PUBLICLY AVAILABLE ASSESSMENT REPORT FOR A VETERINARY  
MEDICINAL PRODUCT

Effipro 2.5 mg/ml cutaneous spray, solution for cats and dogs

**PuAR correct as of 14/09/2018 when RMS was transferred to FR.  
Please contact the RMS for future updates.**

## MODULE 1

### PRODUCT SUMMARY

EU Procedure number	UK/V/0302/001/DC
Name, strength and pharmaceutical form	Effipro 2.5 mg/ml cutaneous spray, solution for cats and dogs
Applicant	Virbac S.A.
Active substance(s)	Fipronil
ATC Vetcode	QP53AX15
Target species	Dogs Cats
Indication for use	<p>Treatment of flea infestation (<i>Ctenocephalides</i> spp.) in dogs and cats. Treatment of tick infestation (<i>Ixodes ricinus</i>, <i>Rhipicephalus sanguineus</i>) in dogs and cats. Treatment of biting lice infestations in dogs (<i>Trichodectes canis</i>) and cats (<i>Felicola subrostratus</i>). The product can be used as part of a treatment strategy for the control of Flea Allergy Dermatitis (FAD).</p> <p>Insecticidal efficacy against new infestations with adult fleas persists for up to 6 weeks in cats and up to 3 months in dogs, depending on environmental challenge. The product has a persistent acaricidal efficacy for up to 4 weeks against ticks, depending on the level of environmental challenge.</p>

## **MODULE 2**

The Summary of Product Characteristics (SPC) for this product is available on the Heads of Medicines Agencies (veterinary) (HMA(v)) website ([www.hma.eu](http://www.hma.eu)).

## **MODULE 3**

### **PUBLIC ASSESSMENT REPORT**

Legal basis of original application	Application in accordance with Article 13.3 of Directive 2001/82/EC as amended by Directive 2004/28/EC
Date of completion of the original decentralised procedure	1 May 2009
Concerned Member States for original procedure	Austria Belgium Bulgaria Cyprus Czech Republic Denmark Estonia Finland France Germany Greece Hungary Ireland Italy Latvia Lithuania Luxembourg Netherlands Norway Poland Portugal Romania Slovakia Slovenia Spain Sweden

## I. SCIENTIFIC OVERVIEW

The product is for the treatment of flea infestation (*Ctenocephalides* spp.) in dogs and cats. Treatment of tick infestation (*Ixodes ricinus*, *Rhipicephalus sanguineus*) in dogs and cats. Treatment of biting lice infestations in dogs (*Trichodectes canis*) and cats (*Felicola subrostratus*).

The product can be used as part of a treatment strategy for the control of Flea Allergy Dermatitis (FAD). Insecticidal efficacy against new infestations with adult fleas persists for up to 6 weeks in cats and up to 3 months in dogs, depending on environmental challenge.

The product has a persistent acaricidal efficacy for up to 4 weeks against ticks, depending on the level of environmental challenge. 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<sup>1</sup>. The product is safe for the user 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 benefit/risk analysis is in favour of granting a marketing authorisation.

## II. QUALITY ASPECTS

### A. *Composition*

The product contains 2.5 mg/ml fipronil as active substance and copovidone, isopropyl alcohol and water purified as excipients.

The container/closure system is a high density polyethylene white opaque bottle containing 100 ml of the product hermetically closed with a mechanical pump spray delivering 0.5 ml per spray (plunger in low density polyethylene) or high density polyethylene white opaque bottle containing 250 ml of the product hermetically closed with a mechanical trigger pump delivering 1.5 ml per spray (plunger in low density polyethylene) or high density polyethylene white opaque bottle containing 500 ml of the product hermetically closed with a mechanical trigger pump delivering 3 ml per spray (plunger in low density polyethylene).

The particulars of the containers and controls performed are provided and conform to the regulation.

The choice of the formulation is justified.

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<sup>1</sup> SPC – Summary of product Characteristics.

## ***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 fipronil which is almost unabsorbed through the skin and the formulation is designed to deposit the active substance easily onto the animal.

There are three excipients used in the formulation and each has been used previously in veterinary medicines. Copovidone is employed in the formulation as a film-forming agent, with isopropyl alcohol and purified water being employed as solvents.

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.

All the excipients used in the final product have monographs in the Ph. Eur. and each comply with the requirements of the current edition of the Ph. Eur.

## ***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 sites 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.

## **H. Genetically Modified Organisms**

Not applicable

## **J. Other information**

### **Shelf life**

Shelf-life of the veterinary medicinal product as packaged for sale : 3 years.<sup>2</sup>

Shelf-life after first opening the immediate packaging : 1 year.

### **Special precautions for storage**

Highly flammable.

Do not store above 25°C.

Protect from direct sunlight.

## **III. SAFETY AND RESIDUES ASSESSMENT (PHARMACOTOXICOLOGICAL)**

### **III.A Safety Testing**

#### **Pharmacological Studies**

Since the application is made in accordance with Article 13(3) of Directive 2004/28/EC, on the basis of essential similarity, data on this section of the dossier were not required.

#### **Toxicological Studies**

Since the application is made in accordance with Article 13(3) of Directive 2004/28/EC, on the basis of essential similarity, data on this section of the dossier were not required.

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<sup>2</sup> Shelf-life of the veterinary medicinal product as packaged for sale changed from 2 years to 3 years by way of variation procedure 11<sup>th</sup> August 2011.

### ***Other Studies***

Since the application is made in accordance with Article 13(3) of Directive 2004/28/EC, on the basis of essential similarity, data on this section of the dossier were not required.

### ***User Safety***

The applicant has not submitted a user risk assessment. The Expert has made reference to the user risk assessment for the reference product and has claimed that because the proposed formulation is “clinically equivalent” to the reference product, the user risk is the same and has proposed the same user warnings. The SPC carries the appropriate warnings.

### ***Ecotoxicity***

The applicant provided a first phase environmental risk assessment in compliance with the relevant guidelines. The assessment ended at Phase I based on use in companion animals only. Warnings and precautions as listed on the product literature are adequate to ensure safety to the environment when the product is used as directed.

## **IV CLINICAL ASSESSMENT (EFFICACY)**

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

#### ***Pharmacology***

Since the application is made in accordance with Article 13(3) of Directive 2004/28/EC, on the basis of essential similarity, data on this section of the dossier were not provided.

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

Since the application is made in accordance with Article 13(3) of Directive 2004/28/EC, on the basis of essential similarity, data on this section of the dossier were not provided.

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

The applicant has provided two dose confirmation studies. The aim of one study was to determine and compare the efficacy of the Effipro cutaneous spray solution with the reference product (Frontline spray) against fleas (*Ctenocephalides felis*) on dogs. The study was conducted on dogs. In the study it was demonstrated that the residual efficacies for the Effipro cutaneous spray solution were not dissimilar to that of the reference product.

Another study was conducted to determine and compare the efficacy of the Effipro cutaneous spray solution with Frontline spray against a French strain of



the tick *Rhipicephalus sanguineus* on dogs. The study was conducted on dogs. The study concluded that 48 hours after application the therapeutic efficacy (based on geometric means) of both the Effipro cutaneous spray solution and the reference product was more than 90%, when the two products were applied at a dosage of 3-6 ml/kg bodyweight to dogs with an *R.sanguineus* (French strain) tick infestation.

## **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 benefit/risk profile for the target species is favourable and the quality and safety of the product for humans and the environment is acceptable.

## **MODULE 4**

### **POST-AUTHORISATION ASSESSMENTS**

The SPC and package leaflet may be updated to include new information on the quality, safety and efficacy of the veterinary medicinal product. The current SPC is available on the Product Information Database of the Veterinary Medicines Directorate website.

[www.gov.uk/check-animal-medicine-licensed](http://www.gov.uk/check-animal-medicine-licensed)

The post-authorisation assessment (PAA) contains information on significant changes which have been made after the original procedure which are important for the quality, safety or efficacy of the product.

The PAA for this product is available on the Product Information Database of the Veterinary Medicines Directorate website.

[www.gov.uk/check-animal-medicine-licensed](http://www.gov.uk/check-animal-medicine-licensed)