Veterinary Medicines Directorate

United Kingdom
Veterinary Medicines Directorate
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(Reference Member State)

DECENTRALISED PROCEDURE

PUBLICLY AVAILABLE ASSESSMENT REPORT FOR A VETERINARY MEDICINAL PRODUCT

Effipro 50 mg Spot-on Solution for Cats

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/0303/001/DC
Name, strength and pharmaceutical form	Effipro 50 mg spot-on solution for cats
Applicant	Virbac S.A.
Active substance(s)	Fipronil
ATC Vetcode	QP53AX15
Target species	Cats
Indication for use	Treatment of flea (*Ctenocephalides* spp.) and tick (*Dermacentor reticulatus*) infestations. The product has a persistent insecticidal efficacy for up to 5 weeks against fleas (*Ctenocephalides felis*). The product has a persistent acaricidal efficacy for up to 2 weeks against ticks (*Rhipicephalus sanguineus, Ixodes ricinus, Dermacentor reticulatus*). If ticks of some species (*Rhipicephalus sanguineus* and *Ixodes ricinus*) are present when the product is applied, all the ticks may not be killed within the first 48 hours but they may be killed within a week. The product can be used as part of a treatment strategy for the control of Flea Allergy Dermatitis (FAD) where this has been previously diagnosed by a veterinary surgeon.

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).

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	6 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 Sloveria Spain Sweden

I. SCIENTIFIC OVERVIEW

The product is for the treatmen of flea (*Ctenocephalides* spp.) and tick (*Dermacentor reticulatus*) infestations. The product has a persistent insecticidal efficacy for up to 5 weeks against fleas (*Ctenocephalides felis*).

The product has a persistent acaricidal efficacy for up to 2 weeks against ticks (*Rhipicephalus sanguineus, Ixodes ricinus, Dermacentor reticulatus*). If ticks of some species (*Rhipicephalus sanguineus* and *Ixodes ricinus*) are present when the product is applied, all the ticks may not be killed within the first 48 hours but they may be killed within a week.

The product can be used as part of a treatment strategy for the control of Flea Allergy Dermatitis (FAD) where this has been previously diagnosed by a veterinary surgeon. 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[1]. 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 50 mg/pipette fipronil as active substance and butylhydroxyanisole, butylhydroxytoluene, benzyl alcohol and diethyl glycol monoethyl ether as excipients.

The container/closure system is either thermoformed pipettes or polypropylene pipettes. Thermoformed pipette is a multi-layer plastic single-dose pipette containing an extractible volume of 0.5 ml. The internal layers in contact with the product are made of polyacrylonitrile-methacrylate or polyethylene-ethylene vinyl alcohol-polyethylene. The white external complex is composed of polypropylene / cyclic olefine copolymer / polypropylene. The polypropylene pipette is a white polypropylene single-dose pipette containing an extractible volume of 0.5 ml packaged in uncoloured plastic blister composed of polypropylene / cyclic olefine copolymer / polypropylene closed by heat sealing with a thermosealable lacquered aluminium foil and placed in a carton box or blister card. The product comes in a variety of pack presentations, containing from 1 to 150 pipettes. Not all products may be marketed.

The particulars of the containers and controls performed are provided and conform to the regulation.
The choice of the formulation is justified.

[1] 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 four excipients used in the formulation and each has been used previously in veterinary medicines.

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: 36 months.

Special precautions for storage
Store below 30°C.
Store in a dry place.
Store in the original package.
Do not remove from blister until required for use.

III. SAFETY AND RESIDUES ASSESSMENT (PHARMACO-TOXICOLOGICAL)

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.

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 made reference to the user risk assessment submitted in the Expert Report which considered dermal and oral exposure including exposure to children. The user warnings proposed are the same as those for the reference product and are considered satisfactory to address user safety.

Ecotoxicity

The applicant has provided environmental risk assessment in compliance with the relevant guideline which showed that the environmental safety of the product is acceptable. The following environmental warning is included on the SPC and product literature:-

- Any unused veterinary medicinal product or waste materials derived from such veterinary medicinal products should be disposed of in accordance with local requirements.
- The product should not enter water courses as this may be dangerous for fish or other aquatic organisms. Do not contaminate ponds, waterways or ditches with the product or empty container.

IV CLINICAL ASSESSMENT (EFFICACY)

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 submitted.

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.

Pharmacokinetics

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

The applicant has conducted a target animal tolerance study to evaluate the local and general tolerance of the product. The study was conducted on cats. Cats were randomly allocated to different groups. The study concluded that when the product was administered at one, three and five times the expected therapeutic dose for three applications over a period of approximately two and a half months, it was 'clinically well tolerated' and had no effect on T4 levels.

Resistance

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 conducted three dose confirmation studies; one for fleas *(Ctenocephalides felis)* on cats, one for fleas *(Ctenocephalides felis)* on dogs and one for (*Ixodes ricinus)* on cats.

A study was conducted to determine and compare the immediate efficacy of an Effipro spot-on solution with that of reference product against fleas *(Ctenocephalides felis)* in cats. The study was conducted on cats. It was concluded from the study that both the Effipro 50 mg spot-on solution for cats and the reference product had an immediate efficacy of more than 95% at 48 hours after treatment when administered to cats at a dosage of 0.5 ml per cat.

Another study was conducted to confirm the efficacy of an Effipro 50mg spot-on solution for cats against the tick *Ixodes ricinus* on cats compared to the reference product when applied once topically at a rate of 0.5 ml per cat. The study was conducted on cats. From the study it was concluded that the Effipro 50 mg spot-on solution for cats, when applied once topically at a rate of 0.5 ml per cat against *Ixodes ricinus* weekly infestations, had a similar efficacy to that of the reference product. The therapeutic efficacy for both products at 48 hours after treatment was less than 90% against ticks already on the cats. However, by one week and for up to two weeks after treatment the persistent efficacy of both the Effipro spot-on solution and the reference product was more than 90% against subsequent weekly new infestations of *Ixodes ricinus* ticks.

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)

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)