

## SUMMARY OF PRODUCT CHARACTERISTICS

### 1. NAME OF THE VETERINARY MEDICINAL PRODUCT

AFILARIA SR 3.4 mg/ml powder and solvent for suspension for injection for dogs (EL, FR, PT, SI).

AFILARIA liberación prolongada 3.4 mg/ml powder and solvent for suspension for injection for dogs (ES).

PREVENGO SR 3.4 mg/ml powder and solvent for suspension for injection for dogs (IT).

### 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each gram of powder (microspheres) contains:

**Active substance:**

Moxidectin 100 mg

**Excipients, q.s.**

Each ml of solvent contains:

**Excipients:**

Methyl parahydroxybenzoate (E218) 1.89 mg

Propyl parahydroxybenzoate 0.22 mg

Each ml of the reconstituted suspension contains:

**Active substance:**

Moxidectin 3.4 mg

**Excipients:**

Methyl parahydroxybenzoate (E218) 1.82 mg

Propyl parahydroxybenzoate 0.21 mg

For a full list of excipients, see section 6.1.

### 3. PHARMACEUTICAL FORM

Powder and solvent for suspension for injection.

Microspheres: white to pale yellow free flowing microspheres.

Solvent: clear to slightly opalescent, colourless to pale yellow solution.

Reconstituted suspension: homogeneous suspension without agglomerates.

### 4. CLINICAL PARTICULARS

#### 4.1. Target species

Dogs.

#### 4.2. Indications for use, specifying the target species

For the prevention of heartworm disease (L3 and L4 larvae of *Dirofilaria immitis*).

For the prevention of cutaneous lesions and of dermatitis caused by *Dirofilaria repens* (L3 larvae).

For the treatment of larval and adult infections of *Ancylostomum caninum* and *Uncinaria stenocephala* present at the time of treatment.

When administered within 1 month from the beginning of the activity of intermediate host (mosquitos), the product has demonstrated persistent efficacy for the whole duration of the risk of infection season for the heartworm disease caused by *D. immitis* and for cutaneous lesions caused by *D. repens* in Europe.

A persistent activity was not determined against *Ancylostomum caninum* and *Uncinaria stenocephala*.

#### **4.3. Contraindications**

Do not use in dogs younger than 12 weeks of age.

Do not administer intravenously.

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

#### **4.4. Special warnings for each target species**

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. 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.

#### **4.5. Special precautions for use**

##### Special precautions for use in animals

The product must be used only in controlled dogs which were negative at the test for heartworm disease. Before starting the prophylactic treatment with the product, infected dogs must be treated to remove adult heartworms and microfilariae. These treatments must be performed under the Veterinary Surgeon's responsibility.

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

Moxidectin and esters of parahydroxybenzoic acid may cause allergic reactions. People with known hypersensitivity to moxidectin or to any of the excipients should avoid contact with the veterinary medicinal product.

Avoid contact with skin or eyes. Wash hands thoroughly after use. In case of accidental spillage onto skin, wash off immediately with soap and water. If the product accidentally gets into eyes, they should be thoroughly flushed with water.

Pay attention to avoid self-injection. In case of accidental self-injection seek medical advice immediately and show the package leaflet or the label to the physician.

Advice to physician in case of accidental self injection: Treat symptomatically.

#### **4.6. Adverse reactions (frequency and seriousness)**

In rare cases, there may be short-lived pain at the injection site or a slight moderate local reaction (swelling) for 2-3 weeks.

Granulomatous lesions, usually well-defined and of small dimension, were commonly found in the animals treated with the recommended dose. The average severity of lesions was registered as “modest”.

In rare occasions, it is possible to observe local hypersensitivity reactions (i.e. face, mucosae, legs, testis, eyelids, lips) or generalized angioedema, urticaria, hitching or anaphylaxis.

Rarely diarrhoea, vomit, transient ataxia, tremors or lethargy were reported.

The product has demonstrated to be very safe even for species sensitive to ivermectins and animals resulted positive to test for heartworm disease.

The frequency of adverse reactions is defined using the following convention:

- very common (more than 1 in 10 animals treated displaying adverse reaction(s))
- common (more than 1 but less than 10 animals in 100 animals treated)
- uncommon (more than 1 but less than 10 animals in 1,000 animals treated)
- rare (more than 1 but less than 10 animals in 10,000 animals treated)
- very rare (less than 1 animal in 10,000 animals treated, including isolated reports)

#### **4.7. Use during pregnancy, lactation or lay**

The safety of injectable moxidectin was established in pregnant bitches.

#### **4.8. Interaction with other medicinal products and other forms of interaction**

The effects of GABA agonists are increased by moxidectin.

#### **4.9. Amounts to be administered and administration route**

To be administered subcutaneously at the dose of 0.17 mg of moxidectin/kg b.w. as a single injection, equivalent to 0.05 ml/kg b.w. of the final suspension of the reconstituted product.

For growing dogs between 12 weeks and 9 months of age, it is recommended to administer the complete dose of the reconstituted product considering the body weight at the moment of the treatment. Do not overdose in prevision of the final weight of the animal. Because of the rapid changing of body weight expected for 12-weeks puppies, a further treatment may be required to ensure complete efficacy. Use only accordingly to the benefit-risk assessment by the responsible veterinarian.

The treatment schedule should be based on veterinary diagnosis and on the local epidemiological situation.

For a purely indicative description, a dosage table is shown below:

<b>Dog's body weight (kg)</b>	<b>Dose volume (mL)</b>	<b>Dog's body weight (kg)</b>	<b>Dose volume (mL)</b>
1	0.05	35	1.75
5	0.25	40	2.00
10	0.50	45	2.25
15	0.75	50	2.50
20	1.00	55	2.75
25	1.25	60	3.00
30	1.50	65	3.25

For dogs over 65 kg, administer 0.25 mL every 5 kg b.w.

If the product is administered instead of another preventive monthly treatment, the dose must be administered within a month from the last administration.

Instruction for the preparation and administration of the product:

1. Withdraw all the vehicle contained in the solvent vial. Do not use any other solvent.
2. Slowly transfer all reconstitution fluid to the powder vial containing the moxidectin microspheres. In order to facilitate the transfer operation, it is recommended to use the adapter supplied in the package as described in the operating instructions. The adapter can be retained on the vial containing the reconstituted suspension and also used for subsequent pickup operations.
3. After adding all the reconstitution liquid into the vial of the microspheres, shake vigorously until all microspheres are suspended.
4. Leave the suspension for about 10 minutes or until all the larger bubbles have dissolved.
5. Take the appropriate dose with a syringe and treat the animal as soon as possible. In case of long wait before administration, the product may separate. In these cases, it is advisable to rotate the syringe gently to resuspend the product.
6. Before each treatment, the vial containing the reconstituted suspension should be softly overturned to resuspend the floating microspheres.
7. Always use caliber and size needles appropriate to the size of the animal. We recommend a 20G needle for animals weighing less than 20 kg and an 18G needle for those of higher weight.
8. For the expiration date, write the date of reconstitution of the product on the appropriate space on the box and on the label.

The vial with reconstituted product may be broached up to 34 times.

The syringes and needles supplied with the medicinal product should only be used for the preparation of the reconstituted suspension and must not be used for administering the reconstituted suspension to the animals.

#### **4.10. Overdose (symptoms, emergency procedures, antidotes), if necessary**

In the majority of subjects treated with a dose equal or higher than 0.5 mg/kg b.w. (3-fold or more the recommended dose), granulomatous lesions are observed with a moderate severity.

#### **4.11. Withdrawal period(s)**

Not applicable

### **5. PHARMACOLOGICAL PROPERTIES**

Pharmacotherapeutic group: Antiparasitic products, Insecticides and repellents, Endectocides; Macrocytic Lactones, Milbemycins.

ATC vet code: QP54AB02

#### **5.1. Pharmacodynamic properties**

Moxidectin is a parasiticide active against a wide range of internal and external parasites and is a second-generation macrocyclic lacton of the milbemycins family.

Its main mode of action is to increase the permeability of the cell membrane to the chlorine ions in the postsynaptic junctions and induce an irreversible state of rest. This causes a flaccid paralysis and ultimately the death of the parasite exposed to the substance. There is no other evidence that moxidectin has other effects on any of the tissues or organs of the mammals. Moxidectin at the dose of 0.17 mg/kg b.w. is effective in preventing infections by migrating *D. immitis* larvae. No effect on adult parasitic forms are found at the

recommended doses. Moxidectin is also active against some G.I. nematodes present in the dog.

## **5.2. Pharmacokinetic particulars**

Moxidectin is a highly lipophilic compound with residues predominantly found in fat compared to other tissues. Following the administration of the product, moxidectin is absorbed from the inoculum site and is subject to limited biotransformations by means of hydroxylation.

Hydroxylation is believed to occur in the liver. The only significant way to excretion is through the stools. The moxidectin blood concentration values were measured in the dog following treatment with the product. The serum levels of moxidectin are dose-dependent. The highest concentration was found 10 days after treatment. The blood peak of 4.13 ng/ml decreased continuously during the study (180 days). The last day with quantifiable concentrations was day 165.

## **5.3. Environmental properties**

Moxidectin fulfils the criteria for a (very) persistent, bioaccumulative and toxic (PBT) substance.

# **6. PHARMACEUTICAL PARTICULARS**

## **6.1. List of excipients**

### Powder (microspheres):

Cholesterol

Carnauba wax (E903)

Hydrogenated palm oil

Glyceryl tristearate

### Solvent:

Methyl parahydroxybenzoate (E218)

Propyl parahydroxybenzoate

Sodium chloride

Hypromellose 2910 (E464)

Hydrochloric acid, dilute (for pH adjustment)

Water for injections

## **6.2. Major incompatibilities**

In the absence of compatibility studies, this veterinary medicinal product must not be mixed with other veterinary medicinal products.

## **6.3. Shelf life**

Shelf life of the veterinary medicinal product as packaged for sale: 3 years

Shelf life after reconstitution according to directions: 3 months.

## **6.4. Special precautions for storage**

Do not freeze.

Keep the vials in the outer carton in order to protect from light.  
After reconstitution store in a refrigerator (2 °C – 8 °C).

#### **6.5. Nature and composition of immediate packaging**

Microsphere: 20 ml Type II colourless glass vial containing 592 mg of microspheres (equivalent to 59.2 mg of moxidectin), closed with a Type I chlorobutyl rubber stopper and a flip-off aluminium collar.

Solvent: 20 ml Type II colourless glass vial containing 17 ml of solvent, closed with a Type I chlorobutyl rubber stopper and a flip-off aluminium collar.

Microsphere: 6 ml Type I colourless glass vial containing 197.3 mg of microspheres (equivalent to 19.73 mg of moxidectin), closed with a Type I chlorobutyl rubber stopper and a flip-off aluminium collar.

Solvent: 6 ml Type I colourless glass vial containing 5.67 ml of solvent, closed with a Type I chlorobutyl rubber stopper and a flip-off aluminium collar.

##### Pack sizes:

Cardboard box with 1 powder vial of 592 mg, 1 solvent vial of 17 ml and 1 adapter

Cardboard box with 1 powder vial of 592 mg, 1 solvent vial of 17 ml and 1 adapter, 1 syringe of 20 ml and 1 needle

Cardboard box with 1 powder vial of 197.3 mg, 1 solvent vial of 5.67 ml and 1 adapter

Cardboard box with 1 powder vial of 197.3 mg, 1 solvent vial of 5.67 ml and 1 adapter, 1 syringe of 10 ml and 1 needle.

#### **6.6. Special precautions for the disposal of unused veterinary medicinal products or waste materials derived from the use of such products**

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 and other aquatic organism.

#### **7. MARKETING AUTHORISATION HOLDER**

FATRO S.p.A.

Via Emilia, 285

40064 Ozzano dell'Emilia (BO)

Italy

#### **8. MARKETING AUTHORISATION NUMBER**

Cardboard box with 1 powder vial of 592 mg, 1 solvent vial of 17 ml and 1 adapter

Cardboard box with 1 powder vial of 592 mg, 1 solvent vial of 17 ml, 1 adapter, 1 syringe and 1 needle

Cardboard box with 1 powder vial of 197.3 mg, 1 solvent vial of 5.67 ml and 1 adapter

Cardboard box with 1 powder vial of 197.3 mg, 1 solvent vial of 5.67 ml, 1 adapter, 1 syringe and 1 needle

#### **9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION**

Date of first authorisation: 05 June 2019

**10. DATE OF REVISION OF THE TEXT**

May 2021

**PROHIBITION OF SALE, SUPPLY AN/OR USE**

For animal treatment only.

To be supplied only on veterinary prescription.