

## **1. NAME OF THE VETERINARY MEDICINAL PRODUCT**

REVOLUTION VETERINARY 6%  
REVOLUTION VETERINARY 12%

## **2. QUALITATIVE AND QUANTITATIVE COMPOSITION**

Each single dose (pipette) delivers:

### **Active substance:**

Selamectin 6%  
Selamectin 12%

For the full list of excipients, see section 6.1.

## **3. PHARMACEUTICAL FORM**

Spot-on solution.  
Clear yellow to colorless solution.

## **4. CLINICAL PARTICULARS**

### **4.1 Target species**

Dogs and cats.

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

Revolution kills adult fleas and prevents flea eggs from hatching for one month and is indicated for the prevention and control of flea infestations (*Ctenocephalides felis*), prevention of heartworm disease caused by *Dirofilaria immitis*, and the treatment and control of ear mite (*Otodectes cynotis*) infestation in dogs and cats.

Revolution also is indicated for the treatment and control of sarcoptic mange (*Sarcoptes scabiei*) and for the control of tick (*Dermacentor variabilis*) infestation in dogs, and the treatment of intestinal hookworm (*Ancylostoma tubaeformis*) and roundworm (*Toxocara cati*) infections in cats. Revolution is recommended for use in dogs and cats six weeks of age and older.

### **4.3 Contraindications**

Do not use in animals under 6 weeks of age.

Do not use in cats that are suffering from concomitant disease or are debilitated and underweight (for size and age).

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

Animals may be bathed 2 hours after treatment without loss of efficacy. Do not apply when the animal's hair coat is wet. However, shampooing or soaking the animal 2 or more hours after treatment will not reduce the efficacy of the product. For ear mite treatment, do not apply directly to the ear canal. It is important to apply the dose as indicated to minimise the quantity that the animal can lick off. If significant licking does occur, a brief period of hypersalivation may rarely be observed in cats.

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

##### Special precautions for use in animals

This veterinary medicinal product is to be applied to the skin surface only. Do not administer orally or parenterally.

Keep treated animals away from fires and other sources of ignition for at least 30 minutes or until the hair coat is dry.

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

This product is highly flammable; keep away from heat, sparks, open flames or other sources of ignition.

Do not smoke, eat or drink while handling the product.

Wash hands after use and wash off any product in contact with the skin immediately with soap and water. If accidental eye exposure occurs, flush the eyes immediately with water and seek medical advice immediately and show the package leaflet or the label to the physician.

Avoid direct contact with treated animals until the application site is dry. On the day of treatment, children must not handle treated animals and the animals should not be permitted to sleep with their owners, especially children. Used applicators should be disposed of immediately and not left within the sight or reach of children.

People with sensitive skin or known allergy to veterinary medicinal products of this type should handle the veterinary medicinal product with caution.

##### Other precautions

Do not allow treated animals to bathe in water courses until at least two hours after treatment administration.

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

Use of the veterinary medicinal product in cats has on rare occasions been associated with a mild transient alopecia at the site of application. On very rare occasions transient focal irritation may also be observed. The alopecia and irritation are normally self-resolving, but symptomatic therapy may be applicable in some circumstances.

On rare occasions in cats and dogs, application of the veterinary medicinal product may produce a local temporary clumping of the hair at the application site and/or an occasional appearance of a small quantity of a white powder. This is normal and will disappear typically within 24 hours of treatment administration and does not affect either the safety or efficacy of the veterinary medicinal product.

Very rarely, as with other macrocyclic lactones, reversible neurological signs, including seizures, have been observed after use of the veterinary medicinal product in both dogs and cats.

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).

Reporting suspected adverse reactions after authorization of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Any suspected adverse events should be reported to the Ministry of Health according to the National Regulation by using an online form <https://sideeffects.health.gov.il>

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

Revolution can be used in breeding, pregnant and lactating cats and dogs.

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

In extensive field testing no interactions between Revolution and routinely used veterinary medicinal products or medical or surgical procedures were observed.

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

Revolution should be administered as a single application of a single dose delivering a minimum of 6 mg/kg selamectin. When concurrent infestations or infections in the same animal are to be treated with the veterinary medicinal product, only one application of the recommended 6 mg/kg dose should be administered at any one time. The appropriate length of the treatment period for individual parasites is specified below.

Administer in accordance with the following table:

Cats (kg)	Pipette cap colour	mg of selamectin dispensed	Potency (mg/ml)	Administered volume (nominal pipette size, ml)
≤ 2.5	Rose	15	60	0.25
2.6–7.5	Blue	45	60	0.75
>7.5		Appropriate combination of pipettes	60	Appropriate combination of pipettes

Dogs (kg)	Pipette cap colour	mg of selamectin dispensed	Potency (mg/ml)	Administered volume (nominal pipette size, ml)
≤ 2.5	Rose	15	60	0.25
2.6–5.0	Violet	30	120	0.25
5.1–10.0	Brown	60	120	0.5
10.1–20.0	Red	120	120	1.0
20.1–40.0	Green	240	120	2.0

#### Flea treatment and prevention (cats and dogs)

Following administration of the veterinary medicinal product, the adult fleas on the animal are killed, no viable eggs are produced, and larvae (found only in the environment) are also killed. This

stops flea reproduction, breaks the flea lifecycle and may aid in the control of existing environmental flea infestations in areas to which the animal has access.

For the prevention of flea infestations, the veterinary medicinal product should be administered at monthly intervals throughout the flea season, starting one month before fleas become active.

Through a reduction in the flea population, monthly treatment of pregnant and lactating animals will aid prevention of flea infestations in the litter up to seven weeks of age.

For use as part of a treatment strategy for flea allergy dermatitis the veterinary medicinal product should be administered at monthly intervals.

#### **Prevention of heartworm disease (cats and dogs)**

The veterinary medicinal product may be administered year-round or at least within one month of the animal's first exposure to mosquitoes and monthly thereafter until the end of the mosquito season. The final dose must be given within one month after the last exposure to mosquitoes.

If a dose is missed and a monthly interval between dosing is exceeded then immediate administration of the veterinary medicinal product and resumption of monthly dosing will minimise the opportunity for the development of adult heartworms.

When replacing another heartworm preventive veterinary medicinal product in a heartworm disease prevention programme, the first dose of the veterinary medicinal product must be given within a month of the last dose of the former medication.

#### **Treatment of roundworm infections (cats and dogs)**

A single dose of the veterinary medicinal product should be administered.

#### **Treatment of ear mites (cats)**

A single dose of the veterinary medicinal product should be administered.

#### **Treatment of ear mites (dogs)**

A single dose of the veterinary medicinal product should be administered. Loose debris should be gently removed from the external ear canal at the time of treatment. A further veterinary examination 30 days after treatment is recommended as some animals may require a second treatment.

#### **Treatment of hookworm infections (cats)**

A single dose of the veterinary medicinal product should be administered.

#### **Treatment of sarcoptic mange (dogs)**

For complete elimination of the mites, a single dose of the veterinary medicinal product should be administered for two consecutive months.

#### **Method and route of administration:**

Spot-on use.

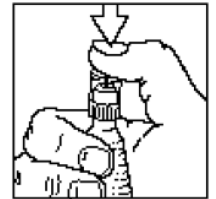
Apply to the skin at the base of the neck in front of the shoulder blades.

How to apply:

Remove the Revolution pipette from its protective package



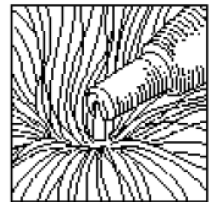
Holding the pipette upright, firmly depress the cap to puncture the applicator seal, then remove the cap



Part the hair at the base of your animal's neck in front of the shoulder blades to expose a small area of skin



Apply the tip of the Revolution pipette directly to the skin without massaging. Squeeze the pipette firmly to empty the contents in one spot. Avoid contact between the product and your fingers.



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

Revolution was administered at 10 times the recommended dose, and no undesirable effects were observed. The veterinary medicinal product was administered at 3 times the recommended dose to cats and dogs infected with adult heartworms and no undesirable effects were observed. The veterinary medicinal product was also administered at 3 times the recommended dose to breeding male and female cats and dogs, including pregnant and lactating females nursing their litters and at 5 times the recommended dose to ivermectin-sensitive Collies, and no undesirable effects were observed.

**4.11 Withdrawal period(s)**

Not applicable.

**5. PHARMACOLOGICAL PROPERTIES**

Pharmacotherapeutic group: antiparasitic products, insecticides and repellents, macrocyclic lactones. ATCvet code: QP54AA05.

### **5.1 Pharmacodynamic properties**

Selamectin is a semi-synthetic compound of the avermectin class. Selamectin paralyzes and/or kills a wide range of invertebrate parasites through interference with their chloride channel conductance causing disruption of normal neurotransmission. This inhibits the electrical activity of nerve cells in nematodes and muscle cells in arthropods leading to their paralysis and/or death.

Selamectin has adulticidal, ovicidal and larvicidal activity against fleas. Therefore, it effectively breaks the flea life cycle by killing adults (on the animal), preventing the hatching of eggs (on the animal and in its environment) and by killing larvae (environment only). Debris from selamectin treated pets kills flea eggs and larvae not previously exposed to selamectin and thus may aid in the control of existing environmental flea infestations in areas to which the animal has access.

Activity has also been demonstrated against heartworm larvae.

### **5.2 Pharmacokinetic particulars**

Following spot on administration selamectin is absorbed from the skin reaching maximum plasma concentrations approximately 1 and 3 days after administration in cats and dogs respectively. Following absorption from the skin selamectin distributes systemically and is slowly eliminated from plasma as manifested in detectable plasma concentrations in dogs and cats 30 days after administration of a single topical dose at 6 mg/kg. The prolonged persistence and slow elimination of selamectin from plasma is reflected in the terminal elimination half-life values of 8 and 11 days in cats and dogs respectively. The systemic persistence of selamectin in plasma and the lack of extensive metabolism provide effective concentrations of selamectin for the duration of the inter-dosing interval (30 days).

## **6. PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

Dipropylene glycol methyl ether  
Isopropyl alcohol  
Butylated hydroxytoluene

### **6.2 Major incompatibilities**

Not applicable.

### **6.3 Shelf life**

Do not use the veterinary medicinal product after the expiry date (exp. date) mentioned on the package. The expiry date refers to the last day of that month.

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

Do not store above 25 °C.

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

Revolution is available in packs of three pipettes (all pipette sizes), six pipettes (all pipette sizes except 15 mg selamectin).

Not all pack sizes may be marketed.

The veterinary medicinal product is in translucent polypropylene single dose pipettes in an aluminium and aluminium/PVC blister overwrap.

The pipettes are colour coded as follows:

Pipettes with rose caps contain 0.25 ml of 6% w/v solution and deliver 15 mg of selamectin.

Pipettes with blue caps contain 0.75 ml of 6% w/v solution and deliver 45 mg of selamectin.

Pipettes with taupe caps contain 1.0 ml of 6% w/v solution and deliver 60 mg of selamectin.

Pipettes with violet caps contain 0.25 ml of 12% w/v solution and deliver 30 mg of selamectin.

Pipettes with brown caps contain 0.5 ml of 12% w/v solution and deliver 60 mg of selamectin.

Pipettes with red caps contain 1.0 ml of 12% w/v solution and deliver 120 mg of selamectin.

Pipettes with green caps contain 2.0 ml of 12% w/v solution and deliver 240 mg of selamectin.

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

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

Revolution should not enter water courses as this may be dangerous for fish and other aquatic organisms. Containers and residual contents should be disposed of along with collected domestic refuse to avoid contamination of any water courses.

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

Zoetis Israel Holding B.V.,  
5 Atir Yeda Street, Kfar Saba, Israel

### **8. MARKETING AUTHORISATION NUMBER(S)**

083-89-92275-01

083-88-92274-01

### **9. MANUFACTURER**

ZOETIS LLC (SUBSIDIARY OF ZOETIS INC), USA  
2605 EAST KILGORE ROAD, KALAMAZOO, MICHIGAN 49001, USA

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

Revised in November 2021 According to MOHs guidelines.