

## **SUMMARY OF PRODUCT CHARACTERISTICS**

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

Earolan Ear Drops and Cutaneous Suspension for Cats and Dogs

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

Each ml contains:

#### **Active substances:**

23.0 mg Miconazole nitrate equivalent to 19.98 mg miconazole

5.0 mg Prednisolone acetate equivalent to 4.48 mg prednisolone

0.5293 mg Polymyxin B sulfate equivalent to 5500 IU polymyxin B sulfate

#### **Excipients:**

<b>Qualitative composition of excipients and other constituents</b>
Silica, Colloidal anhydrous
Paraffin, Liquid

White to off-white suspension.

### **3. CLINICAL INFORMATION**

#### **3.1 Target species**

Cats and dogs.

#### **3.2 Indications for use for each target species**

For the topical treatment of otitis externa and skin infections caused by Gram-positive bacteria e.g. *Staphylococcus aureus*, *Streptococcus* spp., and Gram-negative bacteria *Escherichia coli* and *Pseudomonas aeruginosa*.

For the topical treatment of otitis externa and skin infections caused by fungi and yeasts: *Trichophyton* spp., *Microsporum* spp., *Malassezia pachydermatis*, *Candida* spp.

For the topical treatment of otitis externa caused by the ear mite *Otodectes cynotis* and complicated by microorganisms sensitive to miconazole and polymyxin B.

The product also has anti-inflammatory and anti-pruritic activity.

### 3.3 Contraindications

Do not use:

- in cases of hypersensitivity to the active substances of the veterinary medicinal product, as well as to other corticosteroids, to other azole antifungal agents, or to any of the excipients.
- in cases of skin viral infection.
- in cases in cases of large skin lesions and of poorly healing or fresh wounds.
- in animals with perforation of the tympanic membrane.
- in animals, where resistance of causative agents to polymyxin B and/or miconazole is known.
- on the mammary glands of lactating bitches and queens.

### 3.4 Special warnings for each target species

As the product is a prescription only medicine, treatment should be closely supervised by a veterinary practitioner. Bacterial and fungal otitis is often secondary in nature. The underlying cause should be identified and treated.

### 3.5 Special precautions for use

Special precautions for safe use in the target species:

For external use only.

Before treating with the product, the integrity of the tympanic membrane must be verified.

Avoid contact with eyes in animals. In case of accidental contact, rinse thoroughly with water.

An antibiotic with a lower risk of antimicrobial resistance selection (lower AMEG category) should be used for first line treatment where susceptibility testing suggests the likely efficacy of this approach. This antimicrobial combination should only be used where diagnostic testing has indicated the need for simultaneous administration of each of the active substances.

Use of the product should be based on identification and susceptibility testing of the target pathogen(s).

If this is not possible, therapy should be based on epidemiological information and knowledge of the susceptibility of the target pathogens at the local or regional level.

Use of the product should be in accordance with official, national and regional antimicrobial policies.

If there is overgrowth of resistance growth of resistant bacteria and/or fungi the use of treatment with this veterinary medicinal product should be discontinued and treatment with an appropriate alternative treatment should be initiated.

In cases of persistent infestations with *Otodectes cynotis* (ear mites) systemic treatment with an appropriate acaricide should be considered.

Systemic corticosteroid effects are possible, especially when the product is used under an occlusive dressing, on extensive skin lesions, with increased skin blood flow, or if the product is ingested by licking.

Oral ingestion of the product by treated animals or animals having contact with treated animals should be avoided.

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

People with known hypersensitivity to prednisolone, polymyxin B or miconazole should avoid contact with the veterinary medicinal product.

The product may cause irritation to skin and eyes.

Corticosteroids may produce irreversible effects in the skin. They can be absorbed and may have harmful effects, especially with frequent and extensive contact or in pregnancy.

Avoid contact with skin or eyes. Always wear single use disposable gloves when applying the product to animals. In case of accidental contact, skin or eyes should be rinsed immediately with plenty of water. Wash hands after use.

Accidental ingestion of the product by a child may cause gastro-intestinal disturbances. Do not leave the filled dropper unattended. In case of accidental ingestion, seek medical advice immediately and show the leaflet or the label to the physician

#### Special precautions for the protection of the environment:

Not applicable.

### **3.6 Adverse events**

Cats and dogs:

Very rare (<1 animal / 10,000 animals treated, including isolated reports):	Deafness* Impaired hearing*
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\*Mainly in elderly dogs. If this occurs, treatment should be stopped. Decreased hearing or deafness is generally temporary in nature.

Prolonged use of topical steroids can cause skin discoloration and delay wound healing.

The conventional adverse effects of corticosteroids can occur (disturbance of biochemical parameters such as increased cortisol and hepatic enzyme levels).

Reporting adverse events is important. It allows continuous safety monitoring of a veterinary medicinal product. Reports should be sent, preferably via a veterinarian, to either the marketing authorisation holder or its local representative or the national competent authority via the national reporting system. See the package leaflet for respective contact details.

### **3.7 Use during pregnancy, lactation or lay**

#### Pregnancy and lactation:

The use is not recommended during pregnancy. Application in the area of the mammary gland in dams with suckling infants should be avoided due to the possibility of direct drug intake by the nursing offspring.

### **3.8 Interaction with other medicinal products and other forms of interaction**

No data available.

### **3.9 Administration routes and dosage**

For auricular and cutaneous use.

Routes of administration: For instillation in the external auditory canal or for cutaneous application.

Shake the bottle vigorously and ensure the product is fully resuspended before use.

At the beginning of treatment, hair surrounding or covering the lesions must be clipped; this should be repeated during treatment if necessary.

Ears: Clean the auditory canal and place a few drops of the product into the ear twice daily. For infections caused by *Otodectes cynotis*, instil five drops twice daily for 14 days.

Massage the ear and the auditory canal gently but thoroughly to ensure proper distribution. The success of the treatment should be verified by a veterinarian before discontinuing treatment.

Skin: Having ensured the area to be treated is clean, apply a few drops of the product (depending on lesion size) twice a day and rub well.

Treatment should be continued until a few days after complete disappearance of the clinical symptoms. In some obstinate cases, treatment may be required for 2 to 3 weeks (see also 3.6). In cases where prolonged treatment is necessary repeated clinical examinations including a re-assessment of the diagnosis are required.

Where ear mite infection is present, consideration should be given to treating both ears even if infestation is only apparent in one ear.

### **3.10 Symptoms of overdose (and where applicable, emergency procedures and antidotes)**

No other symptoms than those mentioned in section 3.6 are expected.

### **3.11 Special restrictions for use and special conditions for use, including restrictions on the use of antimicrobial and antiparasitic veterinary medicinal products in order to limit the risk of development of resistance**

Not applicable.

### 3.12 Withdrawal periods

Not applicable.

## 4. PHARMACOLOGICAL INFORMATION

### 4.1 ATCvet code: QS02CA01

### 4.2 Pharmacodynamics

Miconazole belongs to the group of N-substituted imidazole derivatives and inhibits ergosterol de novo synthesis. Ergosterol is an essential membrane lipid and must be synthesised by fungi. Ergosterol deficiency impedes numerous membrane functions, eventually leading to the cell's death. The spectrum of activities covers nearly all fungi and yeasts of relevance to veterinary medicine as well as Gram-positive bacteria. Practically no development of resistance has been reported. Miconazole has a fungistatic mode of action, but high concentrations are also observed to produce fungicidal effects.

Polymyxin B belongs to the polypeptide antibiotics which are isolated from bacteria. It is only active against Gram-negative bacteria. The development of resistance is chromosomal in nature and the development of resistant Gram-negative pathogens is a relatively rare event. However, all *Proteus* species share a natural resistance to polymyxin B.

Polymyxin B binds to phospholipids in the cytoplasmic membrane to disturb membrane permeability. This results in autolysis of the bacteria, thus achieving bactericidal activity.

Prednisolone acetate is a glucocorticoid with strong anti-inflammatory activity which results from its reduction of the permeability of capillaries and vascular proliferation and from the inhibition of fibroblast action.

#### Ear mites

The exact mechanism of the acaricidal effect is unclear. It is assumed that the mites are suffocated or immobilised by the oily excipients.

### 4.3 Pharmacokinetics

Following topical application of polymyxin B, there is virtually no absorption of the compound through intact skin and mucous membranes, but significant absorption via wounds.

After topical application of miconazole, there is virtually no absorption of the compound through intact skin or mucous membranes.

When applied topically to intact skin, prednisolone is subject to limited and delayed absorption. Greater absorption of prednisolone should be expected in cases of compromised skin barrier function (e.g. skin lesions).

## **5. PHARMACEUTICAL PARTICULARS**

### **5.1 Major incompatibilities**

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

### **5.2 Shelf life**

Shelf life of the veterinary medicinal product as packaged for sale: 2 years.  
Shelf life after first opening the immediate packaging: 3 months.

### **5.3 Special precautions for storage**

Do not store above 25 °C.  
Do not refrigerate.  
Keep the container in the outer carton in order to protect from light.

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

Bottle: 15ml or 30ml white low-density polyethylene squeeze dropper bottle.  
Closure: White, high-density polyethylene cap (screw fit).  
Dropper (Dosing Device): White, low-density polyethylene dropper.

Not all pack sizes may be marketed.

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

Medicines should not be disposed of via wastewater.

Use take-back schemes for the disposal of any unused veterinary medicinal product or waste materials derived thereof in accordance with local requirements and with any national collection systems applicable to the veterinary medicinal product concerned.

## **6. NAME OF THE MARKETING AUTHORISATION HOLDER**

EU Pharmaceuticals Ltd

## **7. MARKETING AUTHORISATION NUMBER**

Vm 39787/5010

## **8. DATE OF FIRST AUTHORISATION**

16 October 2024

**9. DATE OF THE LAST REVISION OF THE SUMMARY OF THE PRODUCT CHARACTERISTICS**

October 2024

**10. CLASSIFICATION OF VETERINARY MEDICINAL PRODUCT**

Veterinary medicinal product subject to prescription (POM-V).

Find more product information by searching for the 'Product Information Database' on [www.gov.uk](http://www.gov.uk).

*Gavin Hall*  
Approved: 18 October 2024