

## **SUMMARY OF PRODUCT CHARACTERISTICS**

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

FLUOXEVET 32 mg, tablets for dogs

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

Each tablet contains:

#### **Active substance:**

Fluoxetine .....32.0 mg  
(equivalent to 35.80 mg fluoxetine hydrochloride)

#### **Excipients:**

<b>Qualitative composition of excipients and other constituents</b>
Silicified microcrystalline cellulose
Calcium hydrogen phosphate dihydrate
Beef flavour
Sucralose
Silica, colloidal anhydrous
Talc
Magnesium stearate
Masking flavour

White to cream, spotted, round convex tablet with a cross-shaped break.  
The tablets can be divided into 2 or 4 equal parts.

### **3. CLINICAL INFORMATION**

#### **3.1 Target species**

Dog.

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

As an aid in the treatment of separation-related disorders in dogs manifested by destruction and inappropriate behaviours (vocalisation and inappropriate defaecation and/or urination) and only in combination with behavioural modification techniques.

#### **3.3 Contraindications**

Do not use in dogs weighing less than 4 kg.

Do not use in dogs with epilepsy or in dogs with a history of seizures.

Do not use in cases of hypersensitivity to the active substance or other Selective Serotonin Re-Uptake Inhibitors (SSRIs) or to any of the excipients.

### 3.4 Special warnings

None.

### 3.5 Special precautions for use

#### Special precautions for safe use in the target species:

The safety of the veterinary medicinal product has not been established in dogs less than 6 months of age or weighing less than 4 kg.

As tablets are flavoured, store tablets out of reach of the animals in order to avoid accidental ingestion.

Though rare, seizures may occur in dogs treated with the veterinary medicinal product. Treatment should be stopped if seizures occur.

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

In humans, the most common symptoms associated with overdose include seizures, somnolence, nausea, tachycardia, and vomiting.

To avoid accidental ingestion, particularly by a child, unused tablet parts should immediately be returned to the bottle, the child-resistant closure replaced and the product stored safely out of the sight and the reach of children. Any uneaten medicated food must be disposed of immediately and the bowl washed thoroughly.

In case of accidental ingestion, seek medical advice and show the package leaflet or the label to the physician.

A risk of congenital malformations was observed in infants with mothers exposed to fluoxetine in early pregnancy. Pregnant women should avoid prolonged skin contact with the product.

The active substance fluoxetine may cause eye-irritation. Therefore, hand-to-eye contact should be avoided. In case of accidental contact with eyes, rinse immediately with plenty of water.

Wash hands after use.

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

Not applicable.

### 3.6 Adverse events

In dogs:

Very common (> 1 animal / 10 animals treated)	Decreased appetite or appetite loss, lethargy
Common (1 to 10 animals / 100 animals treated)	Cystitis, urinary incontinence, urinary retention, stranguria Incoordination, disorientation
Uncommon (1 to 10 animals / 1,000 animals treated)	Weight loss/loss of condition Mydriasis
Rare (1 to 10 animals / 10,000 animals treated)	Panting Seizures Vomiting

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

Laboratory studies in rats and rabbits have not produced any evidence of a teratogenic, foetotoxic or maternotoxic effect. No effect on the reproductive capacity in male and female rats was noted.

#### Pregnancy and lactation

The safety of the veterinary medicinal product has not been established during pregnancy and lactation.

The use is not recommended during pregnancy and lactation.

#### Fertility

Do not use in breeding animals.

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

The veterinary medicinal product should not be given concomitantly with veterinary medicinal products that lower the seizure threshold (e.g. phenothiazines such as acepromazine or chlorpromazine).

Do not use the veterinary medicinal product in conjunction with other serotonergic agents (e.g. sertraline) and monoamine oxidase inhibitors (MAOIs) [e.g., selegiline hydrochloride (L-deprenyl), amitraz] or tricyclic amines (TCAs) (e.g. amitriptyline and clomipramine).

A 6-week washout interval should be observed following discontinuation of therapy with the veterinary medicinal product prior to the administration of any veterinary medicinal product that may adversely interact with fluoxetine or its metabolite, norfluoxetine.

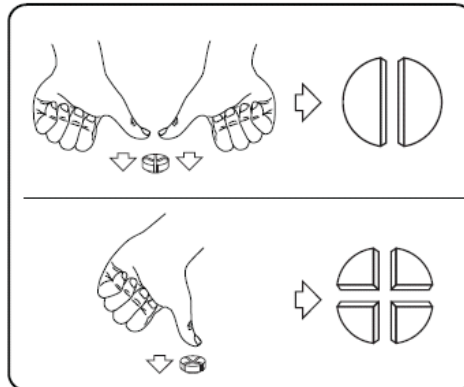
Fluoxetine is largely metabolised by the P-450 enzyme system, although the precise isoform in dogs is unknown. Therefore, fluoxetine should be used with caution with other veterinary medicinal products.

### 3.9 Administration routes and dosage

Oral use.

The veterinary medicinal product should be administered orally at a once daily dose of 1 to 2 mg/kg bodyweight.

Tablets can be divided into 2 or 4 equal parts to ensure accurate dosing. Place the tablet on a flat surface, with its scored side facing up and the convex (rounded) side facing the surface.



2 equal parts: press down with your thumbs on both sides of the tablet.

4 equal parts: press down with your thumb in the middle of the tablet.

Clinical improvement with the veterinary medicinal product is expected within 1 to 2 weeks. If no improvement is noted within 4 weeks, case management should be re-evaluated. Clinical studies have shown that a beneficial response has been demonstrated for up to 8 weeks treatment with fluoxetine.

The tablets may be given with or without food.

If a dose is missed, the next scheduled dose should be administered as prescribed. At the end of treatment it is not necessary to taper or reduce doses because of the long half-life of this veterinary medicinal product.

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

At doses in excess of the recommended dose, observed side effects at the therapeutic dose, including seizures, are exacerbated. In addition, aggressive behaviour was observed. In clinical studies these side effects were stopped immediately upon intravenous administration of a standard dose of diazepam.

### **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: : QNO6ABO3**

### **4.2 Pharmacodynamics**

Fluoxetine and its active metabolite nor-fluoxetine have been shown to be highly selective inhibitors of serotonin uptake both *in vitro* and *in vivo*. Fluoxetine does not act as a sedative. Fluoxetine inhibits catecholamine uptake only at high concentrations *in vitro* and has no effect on catecholamine uptake *in vivo* at doses that are used to inhibit serotonin uptake. As a result of inhibiting serotonin uptake, fluoxetine enhances serotonergic neurotransmission and produces functional effects resulting from increased activation of serotonin receptors. Fluoxetine lacks any significant affinity for neurotransmitter receptors, including the muscarinic cholinergic receptor, adrenergic receptors, or histaminergic H1 receptors, and does not have direct effects on the heart.

### **4.3 Pharmacokinetics**

Fluoxetine is well absorbed after oral administration (approximately 72%) and the absorption is not affected by feeding. Fluoxetine is metabolised to norfluoxetine, an equipotent SSRI that contributes to the efficacy of the veterinary medicinal product.

After a single administration of the veterinary medicinal product in dogs, a mean  $C_{max}$  of fluoxetine of approximately 135 ng/mL was reached at 2 hours. The mean half-life of fluoxetine was 6.25 hours.

In a 21 day study, fluoxetine was administered daily at a dose of 0.75, 1.5 and 3.0 mg/kg body weight to laboratory Beagles. The maximum plasma concentration ( $C_{max}$ ) and area under the plasma concentration time curve (AUC) for fluoxetine were approximately dose proportional between 0.75 and 1.5 mg/kg, with a greater than dose proportional increase at 3 mg/kg. After administration, fluoxetine readily appeared in plasma with mean  $T_{max}$  values ranging from 1.25 to 1.75 hours on day 1 and from 2.5 to 2.75 hours on day 21. Plasma levels readily declined with mean  $t_{1/2}$  values ranging from 4.6 to 5.7 hours on day 1 and from 5.1 to 10.1 hours on day 21. Norfluoxetine plasma levels slowly appeared in plasma and were slowly eliminated with  $t_{1/2}$  values ranging from 44.2 to 48.9 hours on day 21. Norfluoxetine  $C_{max}$  and AUC were generally dose proportional but these values were 3 to 4 fold higher on day 21 than on day 1.

Accumulation of fluoxetine and norfluoxetine occurred following multiple doses until reaching a steady-state within approximately 10 days. Following the last dose administration, fluoxetine and norfluoxetine plasma levels declined steadily in a log-linear fashion. Elimination studies in dogs have shown that 29.8% and 44% of the dose were excreted in urine and faeces, respectively by 14 days following dosing.

## **5. PHARMACEUTICAL PARTICULARS**

### **5.1 Major incompatibilities**

Not applicable.

### **5.2 Shelf life**

Shelf life of the veterinary medicinal product as packaged for sale: 4 years.  
Shelf life after first opening the immediate packaging: 120 days.

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

Store in the original package.  
Any remaining portions of divided tablets should be replaced in the bottle, which should be returned to the cardboard box. Remaining tablet portions should be given at the next administration.

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

High density polyethylene (HDPE) bottle with a child-resistant polypropylene (PP) stopper.  
Cardboard box of one bottle of 30 tablets.

### **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 <or household water>. 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**

DOMES PHARMA

## **7. MARKETING AUTHORISATION NUMBER**

Vm 54982/3007

**8. DATE OF FIRST AUTHORISATION**

09 August 2024

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

August 2024

**10. CLASSIFICATION OF VETERINARY MEDICINAL PRODUCTS**

Veterinary medicinal product subject to prescription.

Detailed information on this veterinary medicinal product is available in the Union Product Database: <https://medicines.health.europa.eu/veterinary>.

*Gavin Hall*

Approved: 09 August 2024