

## **SUMMARY OF PRODUCT CHARACTERISTICS**

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

Lodisure 1 mg tablets for cats

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

Each tablet contains:

**Active substance:**

Amlodipine 1.0 mg (equivalent to 1.4 mg amlodipine besilate)

**Excipients:**

Brilliant blue FCF (E133) 1.0 mg

For the full list of excipients, see section 6.1

### **3. PHARMACEUTICAL FORM**

Tablet.

Blue, oblong tablet with light and dark spots and a scoring line on both sides.  
The tablets can be divided into two equal parts.

### **4. CLINICAL PARTICULARS**

#### **4.1 Target species**

Cats.

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

For the treatment of feline systemic hypertension.

#### **4.3 Contraindications**

Do not use in animals with severe hepatic disease.

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

Do not use in the case of cardiogenic shock and severe aortic stenosis.

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

In cats situational hypertension (also called white coat hypertension) occurs as a consequence of the in-clinic measurement process in an otherwise normotensive animal. In case of high stress levels measurement of systolic blood pressure may lead to incorrect diagnosis of hypertension. It is recommended that stable

hypertension is confirmed by multiple and repeated measurement of systolic blood pressure on different days before commencing therapy.

In case of secondary hypertension it is important to establish primary cause and/or co-morbidities of hypertension, such as hyperthyroidism, chronic kidney disease and diabetes and to treat these conditions.

Continued administration of the product over an extended period of time should be in accordance with an ongoing benefit/risk evaluation, performed by the prescribing veterinarian that includes measurement of systolic blood pressure routinely during treatment (e.g. every 2 to 3 months). If needed dosages may be adjusted.

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

##### Special precautions for use in animals

Special caution is required in patients with hepatic disease as amlodipine is highly metabolised by the liver. Consequently amlodipine half-life may be prolonged and a lower dose may be required. As no studies have been conducted in animals with liver disease, use of the product in these animals should be based on a benefit-risk assessment by the attending veterinarian.

Older cats with severe hypertension and chronic kidney disease (CKD) may suffer from hypokalaemia as a result of their underlying disease. Administration of amlodipine may sometimes result in a decrease in serum potassium and chloride levels and could thus lead to exacerbation of hypokalaemia already present.

Monitoring of those concentrations is recommended before and during treatment.

No animals with severe unstable CKD were included in the clinical trials. Use of the product in these animals should be based on a benefit-risk assessment by the attending veterinarian.

Because amlodipine may have slight negative inotropic effects, the use of the product in cardiac patients should be based on a benefit risk assessment by the veterinarian. Safety has not been tested in cats with known heart disease.

Animals weighing less than 2.5 kg were not included in the clinical trials. Animals weighing between 2 and 2.5 kg should be treated with caution and based on a benefit risk assessment by the responsible veterinarian.

Doses above 0.47 mg/kg bodyweight have not been examined in clinical trials with the product and should only be administered with caution and based on a benefit risk assessment by the attending veterinarian.

The tablets are flavoured. To avoid accidental ingestion, store tablets out of reach of animals.

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

This product may cause hypersensitivity reactions. People with known hypersensitivity to amlodipine should avoid contact with the veterinary medicinal product. Wash hands after use.

Accidental ingestion by children, may cause a decrease in blood pressure. Unused tablet parts should be placed back into the blister and carton and carefully kept away from children. In case of accidental ingestion by a child seek medical advice immediately and show the package leaflet or the label to the physician.

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

The following adverse events were commonly reported in clinical trials: mild and transient digestive tract disorders (e.g. vomiting, decreased appetite, diarrhoea), lethargy, weight loss and reduced serum levels of potassium. Hypotension was uncommonly observed during clinical trials.

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

There has been no evidence of teratogenicity or reproductive toxicity in studies with rats and rabbits. Amlodipine is excreted with the milk.

The safety of amlodipine has not been established during pregnancy or lactation in cats.

Use only in accordance with the benefit/risk assessment by the responsible veterinarian.

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

Concomitant use of diuretics, beta-blockers, other calcium channel blockers, inhibitors of the renin angiotensin aldosterone system, other vasodilators, alpha-2 agonists or other agents that may reduce blood pressure may cause hypotension. Concomitant use of cyclosporin or CYP3A4 strong inhibitors (eg. ketoconazole, itraconazole) may cause increased amlodipine levels.

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

Oral use.

The recommended standard starting dose is 0.125-0.25 mg amlodipine per kg bodyweight per day.

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|                    | Bodyweight range (kg) | Number of tablets a day |
|--------------------|-----------------------|-------------------------|
| Standard posology: | 2 to < 4              | ½                       |
|                    | ≥ 4 to 8              | 1                       |

For cats weighing between 2kg and 2.5kg, please refer to section 4.5.

After two weeks of treatment, the clinical response should be re-evaluated. In case of insufficient clinical response - decrease in SBP less than 15% and SBP still > 150 mm Hg - dose may be increased by 0.5 mg (½ tablet) per day, up to a maximum dose of 0.5 mg/kg BW daily. See also section 4.5.

Response to dose adjustments should be re-evaluated after another two weeks.

In the event of clinically relevant adverse events decreasing the dose or termination of treatment should be considered.

The tablets can be administered directly to the animal or administered with a small quantity of food.

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

Reduced appetite and weight loss occurred at a dose of 1 mg/day (corresponding to 0.32 mg/kg)

Lethargy started to occur in some cats receiving 3 mg amlodipine/daily (0.63 - 1.11 mg/kg/day).

An overall shift in electrolyte balance (lowered potassium and chloride concentrations) was detected in all animals receiving 3-5 mg amlodipine/daily (0.49 - 1.56 mg/kg).

Conjunctivitis and watery discharge from the eyes was noted in the highest dosed animals, i.e. 1.02 - 1.47 mg/kg; however it is unclear if this is treatment related.

Reversible gingival hyperplasia has been described in literature after treatment with 2.5 mg of amlodipine per day for more than 300 days.

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

Not applicable.

### **5. PHARMACOLOGICAL PROPERTIES**

Pharmacotherapeutic group: Selective calcium channel blocker with mainly vascular effects, dihydropyridine derivatives.

ATCvet code: QC08CA01.

#### **5.1 Pharmacodynamic properties**

Amlodipine is a calcium ion influx inhibitor of the dihydropyridine group (slow channel blocker or calcium ion antagonist) and inhibits the transmembrane influx of calcium ions into cardiac and vascular smooth muscle.

The mechanism of the antihypertensive action of amlodipine is due to a direct relaxant effect on vascular smooth muscle, where it acts as a peripheral arteriolar vasodilator and reduces afterload.

Amlodipine has a higher affinity for L-type calcium channels and has some affinity for T-type calcium channels. Within the kidney, L-type calcium channels are found primarily in afferent (prerenal) arterioles. Although amlodipine has a greater affinity for the vascular L-type calcium channels, it can also act on those found in the cardiac muscle and cardiac nodal tissue.

Amlodipine slightly depresses impulse formation and conduction velocity in the cardiac muscle.

In cats with systemic arterial hypertension, once daily dosing of amlodipine by oral route provides clinically significant reductions of blood pressure throughout the 24 hour interval. Due to the slow onset of action, acute hypotension is not a feature of amlodipine administration.

#### **5.2 Pharmacokinetic particulars**

Absorption: After oral administration amlodipine is well absorbed with a mean bioavailability of approximately 80%. Following a single dose of 1 mg per cat (corresponding to 0.16 and 0.40 mg amlodipine/kg) peak blood levels of 3.0 to 35.1 ng/ml (mean C<sub>max</sub> 19.3 ng/ml) are measured between 2 and 6 hours (mean T<sub>max</sub> 4.3 h) post dose.

Distribution: Amlodipine is highly bound to plasma proteins. In vitro protein binding in cat plasma is 97%. The amlodipine volume of distribution is approximately 10 L/kg.

Biotransformation: Amlodipine is extensively metabolized in the liver to inactive metabolites.

Elimination: Amlodipine has a long plasma half-life of 33 to 86 hours (average 54 h), resulting in significant accumulation.

## **6. PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

Brilliant Blue FCF (E133)  
Yeast (dried)  
Chicken flavour  
Cellulose microcrystalline  
Sodium starch glycolate  
Magnesium stearate.

### **6.2 Major incompatibilities**

Not applicable

### **6.3 Shelf life**

Shelf life of the veterinary medicinal product as packaged for sale: 3 years.  
Shelf life of the divided tablet: use within 24 hours.

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

Do not store above 25°C. Divided tablets should be stored in the open blister pack. Keep the blister package in the outer carton in order to protect from light.

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

Blister made of PVC /aluminium / OPA with a push-through PVC-PVDC/aluminium lidding foil. Each blister contains 14 tablets.

Package sizes:

1 cardboard carton with 28 tablets  
1 cardboard carton with 56 tablets  
1 cardboard carton with 84 tablets  
1 cardboard carton with 168 tablets  
Not all pack sizes may be marketed.

### **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.

**7. MARKETING AUTHORISATION HOLDER**

Dechra Regulatory B.V.  
Handelsweg 25  
5531 AE Bladel  
The Netherlands

**8. MARKETING AUTHORISATION NUMBER**

Vm 50406/4010

**9. DATE OF FIRST AUTHORISATION**

08 December 2020

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

November 2023

Approved 02 November 2023

