

## **SUMMARY OF PRODUCT CHARACTERISTICS**

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

Cardisan 5 mg chewable tablets for dogs

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

Each tablet contains:

#### **Active substance:**

Pimobendan 5 mg

#### **Excipients:**

For the full list of excipients, see section 6.1.

### **3. PHARMACEUTICAL FORM**

Chewable tablet.

Light brown with brown spots, round and convex 13 mm tablet with a cross-shaped break line on one side.

Tablets can be divided into 2 or 4 equal parts.

### **4. CLINICAL PARTICULARS**

#### **4.1 Target species**

Dogs

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

For the treatment of canine congestive heart failure originating from dilated cardiomyopathy or valvular insufficiency (mitral and/or tricuspid valve regurgitation).

#### **4.3 Contraindications**

Do not use pimobendan in hypertrophic cardiomyopathies or in diseases in which an improvement in cardiac output cannot be achieved for functional or anatomical reasons (e.g. aortic stenosis).

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

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

None.

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

##### **i). Special precautions for use in animals**

The blood glucose should be tested regularly during treatment in dogs with existing diabetes mellitus.

Since pimobendan is metabolised mainly via the liver, it should not be used in dogs with severe impairment of liver function.

Monitoring of cardiac function and morphology is recommended in animals treated with pimobendan.

(See also section 4.6).

The chewable tablets are flavoured. In order to avoid any accidental ingestion, store tablets out of reach of animals.

##### **ii). Special precautions to be taken by the person administering the veterinary medicinal product to animals**

This product may cause tachycardia, orthostatic hypotension, flushing of the face and headaches.

To avoid accidental ingestion, especially by a child, unused tablet parts should be placed back into the blister and carton and carefully kept away from children. Part used tablets should be used at the time of the next dose.

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

Wash hands after use.

##### **iii). Other precautions**

Not applicable.

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

In rare cases a slight positively chronotropic effect (rise in heart rate) and vomiting can occur. However, these effects are dose-dependent and can be avoided by reducing the dose.

In rare cases transient diarrhoea, anorexia or lethargy have been observed.

Although a relationship with pimobendan has not been clearly established, in very rare cases, signs of effects on primary haemostasis (petechiae on mucous membranes, subcutaneous haemorrhages) may be observed during treatment. These signs disappear when the treatment is withdrawn. In rare cases, an increase

in mitral valve regurgitation has been observed during chronic pimobendan treatment in dogs with mitral valve 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 or lactation**

##### Pregnancy:

Laboratory studies in rats and rabbits have not produced any evidence of teratogenic or foetotoxic effects. However, these studies have shown evidence of maternotoxic and embryotoxic effects at high doses. The safety of the product has not been assessed in pregnant bitches.

Use only according to the benefit/risk assessment by the responsible veterinarian.

##### Lactation:

Laboratory studies in rats have also shown that pimobendan is excreted into milk. The safety of the product has not been assessed in nursing bitches.

Use only according to the benefit/risk assessment by the responsible veterinarian.

#### **4.8 Interactions with other medicinal products and other forms of interaction**

In pharmacological studies no interaction between the cardiac glycoside strophanthin and pimobendan was observed. The pimobendan-induced increase in cardiac contractility is attenuated by calcium antagonists and by  $\beta$ -antagonists.

#### **4.9 Amount(s) to be administered and administration route**

For oral use.

Do not exceed the recommended dosage.

Determine the bodyweight accurately before treatment to ensure correct dosage.

The dose should be orally administered and within the dose range of 0.2 mg to 0.6 mg pimobendan/kg bodyweight, divided into two daily doses. The preferable daily dose is 0.5 mg/kg bodyweight, divided into two daily doses (0.25 mg/kg bodyweight each). Each dose should be given approximately 1 hour before feeding.

This corresponds to:

One 5 mg chewable tablet in the morning and one 5 mg chewable tablet in the evening for a body weight of 20 kg.

Chewable tablets can be divided into four equal parts, for dosage accuracy, according to the bodyweight.

The product may be combined with a diuretic treatment, e.g. furosemide.

In case of congestive heart failure a life-long treatment is recommended. The maintenance dose should be individually adjusted according to the severity of the disease.

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

In the case of overdose, a positive chronotropic effect, vomiting, apathy, ataxia, heart murmurs or hypotension may occur. In this situation, the dosage should be reduced and appropriate symptomatic treatment should be initiated.

In prolonged exposure (6 months) of healthy beagle dogs at 3 and 5 times the recommended dose, mitral valve thickening and left ventricular hypertrophy were observed in some dogs. These changes are of pharmacodynamic origin.

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

Not applicable.

### **5. PHARMACOLOGICAL PROPERTIES**

**Pharmacotherapeutic group:** Cardiac stimulants excl. cardiac glycosides, phosphodiesterase inhibitors

**ATC Vet Code:** QC01CE90

#### **5.1 Pharmacodynamic properties**

Pimobendan, a benzimidazole-pyridazinone derivative has a positive inotropic action and possesses pronounced vasodilator properties.

The positive inotropic effect of pimobendan is mediated by two mechanisms of action: increase in calcium sensitivity of cardiac myofilaments and inhibition of phosphodiesterase III. Thus the positive inotropism is triggered neither by an action similar to that of the cardiac glycosides nor sympathomimetics.

The vasodilator effect arises from inhibition of phosphodiesterase III.

When used in cases of symptomatic valvular insufficiency in conjunction with furosemide, the product has been shown to improve the quality of life and extend life expectancy in treated dogs.

When used in a limited number of cases of symptomatic dilated cardiomyopathy in conjunction with furosemide, enalapril and digoxin, the product has been shown to improve the quality of life and to extend life expectancy in treated dogs.

#### **5.2 Pharmacokinetic particulars**

Following oral administration of the veterinary medicinal product the absolute bio-availability of the active principle is 60 - 63%. The bio-availability is considerably reduced when pimobendan is administered with food or shortly thereafter. After oral administration of a single dose of 0.2 - 0.4 mg/kg pimobendan to dogs fasted

overnight, the plasma concentrations increased fast. The peak concentration ( $C_{max}$ ) of ~ 24 ng/mL was reached after a median of 0.75 hours ( $T_{max}$  ranged from 0.25 to 2.5 hours ).

The volume of distribution is 2.6 l/kg, indicating that pimobendan is distributed readily into the tissues. The mean plasma protein binding is 93%.

The compound is oxidatively demethylated to its major active metabolite (UD-CG 212). Further metabolic pathways are phase II conjugates of UD-CG-212, in essence glucuronides and sulphates.

The plasma elimination half-life of pimobendan is ~ 1 hour. Almost the entire dose is eliminated in the faeces.

## **6. PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

Citric acid  
Povidone  
Lactose monohydrate  
Cellulose, microcrystalline  
Croscarmellose sodium  
Chicken flavour  
Yeast (dried)  
Silica, colloidal hydrated  
Magnesium stearate

### **6.2 Major Incompatibilities**

Not applicable.

### **6.3 Shelf life**

Shelf life of the veterinary medicinal product as packaged for sale: 5 years.

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

This veterinary medicinal product does not require any special storage conditions.

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

Aluminium-OPA/Aluminium/PVC blisters containing 10 tablets.  
Cardboard box of 30, 60, 90, 100 or 120 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**

Alfasan Nederland B.V.  
Kuipersweg 9  
3449 JA Woerden  
The Netherlands

## **8. MARKETING AUTHORISATION NUMBER**

Vm 36408/5013

## **9. DATE OF FIRST AUTHORISATION**

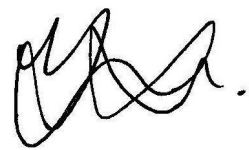
14 December 2022

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

December 2022

## **11. CLASSIFICATION OF VETERINARY MEDICINAL PRODUCTS**

Veterinary medicinal product subject to prescription



Approved: 14 December 2022