

## 1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Atopica 100 mg soft capsules for dogs  
Atoplus (IT)

## 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each capsule contains:

**Active substance:** Ciclosporin 100 mg

### Excipients:

Qualitative composition of excipients and other constituents	Quantitative composition if that information is essential for proper administration of the veterinary medicinal product
$\alpha$ -tocopherol (E-307)	1.000 mg
Iron oxid black (E-172)	0.285 mg
Titanium dioxide (E-171)	5.730 mg
Carminic acid (E-120)	< 1.00 $\mu$ g
Ethanol (E-1510)	
Corn oil-mono-di-triglycerides	
Gelatine (E-441)	
Glycerol (E-422)	
Propylene glycol (E-1520)	
Macrogolglycerol hydroxystearate	

Blue-gray oblong soft capsules bearing the following imprint: NVR 100 mg.

## 3. CLINICAL INFORMATION

### 3.1 Target species

Dogs (weighing from 15 to 55 kg).

### 3.2 Indications for use for each target species

Treatment of chronic manifestations of atopic dermatitis in dogs.

### 3.3 Contraindications

Do not use in cases of hypersensitivity to ciclosporin or any of the excipients.

For all capsule strengths, do not use in dogs less than six months of age or less than 2 kg in weight.

Do not use in cases with a history of malignant disorders or progressive malignant disorders.

Do not vaccinate with a live vaccine during treatment or within a two-week interval before or after treatment (see also sections 3.5 "Special precautions for use" and 3.8 "Interaction with other medicinal products and other forms of interaction").

### 3.4 Special warnings

Consideration should be given to the use of other measures and/or treatments to control moderate to severe pruritus when initiating therapy with ciclosporin.

### 3.5 Special precautions for use

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

Clinical signs of atopic dermatitis such as pruritus and skin inflammation are not specific for this disease and therefore other causes of dermatitis such as ectoparasitic infestations, other allergies which cause dermatological signs (*e.g.* flea allergic dermatitis or food allergy) or bacterial and fungal infections should be ruled out before treatment is started. It is good practice to treat flea infestations before and during treatment of atopic dermatitis.

It is recommended to clear bacterial and fungal infections before administering the veterinary medicinal product. However, infections occurring during treatment are not necessarily a reason for drug withdrawal, unless the infection is severe.

A complete clinical examination should be performed before treatment. As ciclosporin inhibits T-lymphocytes and though it does not induce tumors, it may lead to increased incidences of clinically apparent malignancy. Lymphadenopathy observed on treatment with ciclosporin should be regularly monitored.

In laboratory animals, ciclosporin is liable to affect the circulating levels of insulin and to cause an increase in glycaemia. In the presence of suggestive signs of diabetes mellitus, the effect of treatment on glycaemia must be monitored.

If signs of diabetes mellitus are observed following the use of the product, *e.g.* polyuria or polydipsia, the dose should be tapered or discontinued and veterinary care sought.

The use of ciclosporin is not recommended in diabetic dogs.  
Closely monitor creatinine levels in dogs with severe renal insufficiency.

Particular attention must be paid to vaccination. Treatment with the veterinary medicinal product may interfere with vaccination efficacy. In the case of inactivated vaccines, it is not recommended to vaccinate during treatment or within a two-week interval before or after administration of the product. For live vaccines see also section 3.3 “Contraindications”.

It is not recommended to use other immunosuppressive agents concomitantly.

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

Wash hands after administration.

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

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

Not applicable.

### 3.6 Adverse events

Dogs:

Uncommon (1 to 10 animals / 1 000 animals treated):	Digestive tract disorders (such as Vomiting, Mucous stool, Loose stool, Diarrhoea) <sup>1</sup> .
Rare (1 to 10 animals / 10 000 animals treated):	Lethargy <sup>2</sup> , Anorexia <sup>2</sup> ; Hyperactivity <sup>2</sup> ; Gingival hyperplasia <sup>2,3</sup> ; Skin reactions (such as Verruciform lesions, Hair change) <sup>2</sup> ; Pinnal reddening <sup>2</sup> , Pinnal oedema <sup>2</sup> ; Muscle weakness <sup>2</sup> , Cramp <sup>2</sup> .

Very rare (<1 animal / 10 000 animals treated, including isolated reports):	Diabetes mellitus <sup>4</sup> .
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<sup>1</sup>generally mild and transient and do not require the cessation of the treatment

<sup>2</sup>generally resolve spontaneously after treatment is stopped

<sup>3</sup>mild to moderate

<sup>4</sup>mainly in West Highland White Terriers

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 ‘Contact details’ of the package leaflet.

### 3.7 Use during pregnancy, lactation or lay

#### Pregnancy and lactation:

In laboratory animals, at doses which induce maternal toxicity (rats at 30 mg/kg bw and rabbits at 100 mg/kg bw) ciclosporin was embryo- and fetotoxic, as indicated by increased pre- and postnatal mortality and reduced foetal weight together with skeletal retardations. In the well-tolerated dose range (rats at up to 17 mg/kg bw and rabbits at up to 30 mg/kg bw) ciclosporin was without embryolethal or teratogenic effects.

The safety of the drug has neither been studied in breeding male dogs nor in pregnant or lactating female dogs. In the absence of such studies in the dog, it is recommended to use the drug in breeding dogs only upon a positive risk/benefit assessment by the veterinarian. Ciclosporin passes the placenta barrier and is excreted via milk. Therefore, the treatment of lactating bitches is not recommended.

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

Various substances are known to competitively inhibit or induce the enzymes involved in the metabolism of ciclosporin, in particular cytochrome P450 (CYP 3A 4). In certain clinically justified cases, an adjustment of the dosage of the veterinary medicinal product may be required. Ketoconazole at 5-10 mg/kg is known to increase the blood concentration of ciclosporin in dogs up to five-fold, which is considered to be clinically relevant. During concomitant use of ketoconazole and ciclosporin the veterinarian should consider as a practical measure to double the treatment interval if the dog is on a daily treatment regime.

Macrolides such as erythromycin may increase the plasma levels of ciclosporin up to twofold.

Certain inducers of cytochrome P450, anticonvulsants and antibiotics (e.g.

trimethoprim/sulfadimidine) may lower the plasma concentration of ciclosporin.

Ciclosporin is a substrate and an inhibitor of the MDR1 P-glycoprotein transporter. Therefore, the co-administration of ciclosporin with P-glycoprotein substrates such as macrocyclic lactones (e.g. ivermectin and milbemycin) could decrease the efflux of such drugs from blood-brain barrier cells, potentially resulting in signs of CNS toxicity.

Ciclosporin can increase the nephrotoxicity of aminoglycoside antibiotics and trimethoprim.

The concomitant use of ciclosporin is not recommended with these active ingredients.

In dogs, no toxicological interactions between ciclosporin and prednisolone (at anti-inflammatory doses) are expected.

Particular attention must be paid to vaccination (see sections 3.3 “Contraindications” and 3.5 “Special precautions for use”).

### 3.9 Administration routes and dosage

For oral use.

To ensure a correct dosage, body weight should be determined as accurately as possible.

The mean recommended dose of ciclosporin is 5 mg/kg body weight according to the following scheme:

- For a dog weighing 15 to < 29 kg one capsule of the veterinary medicinal product
- For a dog weighing 36 to < 55 kg two capsules of the veterinary medicinal product.

The veterinary medicinal product will initially be given daily until a satisfactory clinical improvement is seen. This will generally be the case within 4 weeks. If no response is obtained within the first 8 weeks, the treatment should be stopped.

Once the clinical signs of atopic dermatitis are satisfactorily controlled, the veterinary medicinal product can then be given every other day as a maintenance dose. The veterinarian should perform a clinical assessment at regular intervals and adjust the frequency of administration to the clinical response obtained.

In some cases where the clinical signs are controlled with every-other-day dosing, the veterinarian can decide to give the veterinary medicinal product every 3 to 4 days.

Adjunct treatment (e.g. medicated shampoos, fatty acids) may be considered before reducing the dosing interval.

Treatment may be stopped when the clinical signs are controlled. Upon recurrence of clinical signs, treatment should be resumed at daily dosing, and in certain cases repeated treatment courses may be required.

The veterinary medicinal product should be given at least 2 hours before or after feeding. Insert the capsule directly into the dog's mouth.

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

No undesirable effects beyond those that were seen under recommended treatment have been observed in the dog with a single oral dose of up to 6 times of what is recommended. In addition to what was seen under recommended dosage, the following adverse reactions were seen in case of overdose for 3 months or more at 4 times the mean recommended dosage: hyperkeratotic areas especially on the pinnae, callous-like lesions of the foot pads, weight loss or reduced weight gain, hypertrichosis, increased erythrocyte sedimentation rate, decreased eosinophil values. Frequency and severity of these signs are dose dependent.

There is no specific antidote and in case of signs of overdose the dog should be treated symptomatically. The signs are reversible within 2 months following cessation of treatment.

### **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: QL04AD01.**

### **4.2 Pharmacodynamics**

Ciclosporin (also known as cyclosporin, cyclosporine, cyclosporine A, CsA) is a selective immunosuppressor. It is a cyclic polypeptide consisting of 11 amino acids, has a molecular weight of 1203 daltons and acts specifically and reversibly on T-lymphocytes.

Ciclosporin exerts anti-inflammatory and antipruritic effects in the treatment of atopic dermatitis. Ciclosporin has been shown to preferentially inhibit the activation of T-lymphocytes on antigenic stimulation by impairing the production of IL-2 and other T-cell derived cytokines. Ciclosporin also has the capacity to inhibit the antigen-presenting function on the skin immune system. It likewise blocks the recruitment and activation of eosinophils, the production of cytokines by keratinocytes, the functions of Langerhans cells, the degranulation of mast cells and therefore the release of histamine and pro-inflammatory cytokines.

Ciclosporin does not depress haematopoiesis and has no effect on the function of phagocytic cells.

### **4.3 Pharmacokinetics**

#### Absorption

The bioavailability of ciclosporin is about 35%. The peak plasma concentration is reached within 1 to 2 hours. The bioavailability is better and less subject to individual variations if ciclosporin is administered to fasted animals rather than at mealtimes.

#### Distribution

In dogs, the volume of distribution is about 7.8 l/kg. Ciclosporin is widely distributed to all tissues. Following repeated daily administration to dogs ciclosporin concentration in the skin is several times higher than in blood.

#### Metabolism

Ciclosporin is metabolised mainly in the liver by cytochrome P450 (CYP 3A 4), but also in the intestine. Metabolism takes place essentially in the form of hydroxylation and demethylation, leading to metabolites with little or no activity. Unchanged ciclosporin represents about 25% of circulating blood concentrations during the first 24 hours.

#### Elimination

Elimination is mainly via the faeces. Only 10% is excreted in the urine, mostly in the form of metabolites. No significant accumulation was observed in blood of dogs treated for one year.

## **5. PHARMACEUTICAL PARTICULARS**

### **5.1 Major incompatibilities**

Not applicable.

### **5.2 Shelf life**

Shelf life of the veterinary medicinal product as packaged for sale: 3 years.

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

Do not store above 25 °C.

Keep the veterinary medicinal product in the blister pack.

Keep the blister pack in the outer carton.

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

Aluminium/Aluminium blisters containing 5 soft capsules.

Pack sizes:

Cardboard box containing 15 soft capsules in 3 blister packs.

Cardboard box containing 30 soft capsules in 6 blister packs.

Cardboard box containing 60 soft capsules in 12 blister packs.

Not all pack sizes may be marketed.

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

Medicines should not be disposed of via wastewater or household waste.

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**

**7. MARKETING AUTHORISATION NUMBER(S)**

**8. DATE OF FIRST AUTHORISATION**

Date of first authorisation: {DD/MM/YYYY}

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

MM/YYYY

**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>).