

**IRISH MEDICINES BOARD ACT 1995**

**EUROPEAN COMMUNITIES (ANIMAL REMEDIES) (No. 2) REGULATIONS 2007**

**(S.I. No. 786 of 2007)**

VPA:10989/056/001

Case No: 7004133

The Irish Medicines Board in exercise of the powers conferred on it by Animal Remedies (No. 2) Regulations (S.I. No. 786 of 2007) hereby grants to:

**Eurovet Animal Health B.V.**

**Handelsweg 25, 5531 AE Bladel, Netherlands**

an authorisation, subject to the provisions of the said Regulations and the general conditions of the attached authorisation, in respect of the Veterinary Medicinal Product:

**Rapidexon 2 mg/ml Solution for Injection**

The particulars of which are set out in Part 1 and Part 2 of the said Schedule. The authorisation is also subject to any special conditions as may be specified in Part 2 of the said Schedule.

This authorisation, unless previously revoked, shall continue in force from **04/04/2008** to **03/04/2013**.

Signed on behalf of the Irish Medicines Board

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A person authorised in that behalf by the said Board.

## Part II

### Summary of Product Characteristics

#### 1 NAME OF THE VETERINARY MEDICINAL PRODUCT

Rapidexon 2 mg/ml solution for injection.

#### 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each millilitre contains:

**Active substance:**

Dexamethasone (as Dexamethasone Sodium Phosphate) 2.0 mg

**Excipient:**

Benzyl alcohol (E1519), 15.0 mg

For a full list of excipients, see section 6.1.

#### 3 PHARMACEUTICAL FORM

Solution for injection.

A clear colourless solution practically free from particles.

#### 4 CLINICAL PARTICULARS

##### 4.1 Target Species

Horses, cattle, pigs, cats and dogs.

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

In horses, cattle, pigs, dogs and cats:

Dexamethasone may be used for the treatment of inflammatory or allergic conditions.

In cattle:

Treatment of primary ketosis (acetonaemia).

Induction of parturition.

In horses:

Treatment of arthritis, bursitis or tenosynovitis.

### 4.3 Contraindications

Except in emergency situations, do not use in animals suffering from diabetes mellitus, renal insufficiency, cardiac insufficiency, hyperadrenocorticism or osteoporosis.

Do not use in viral infections during the viraemic stage or in cases of systemic mycotic infections.

Do not use in animals suffering from gastrointestinal or corneal ulcers, or demodicosis.

Do not administer intra-articularly where there is evidence of fractures, bacterial joint infections and aseptic bone necrosis.

Do not use in known cases of hypersensitivity to the active substance, to corticosteroids and to any other ingredient of the product.

Refer to section 4.7.

### 4.4 Special warnings for each target species

If the veterinary medicinal product is used for induction of parturition in cattle, then a high incidence of retained placentae may be experienced and possible subsequent metritis and/or subfertility.

### 4.5 Special precautions for use

#### Special precautions for use in animals

Response to long-term therapy should be monitored at regular intervals by a veterinary surgeon.

Use of corticosteroids in horses has been reported to induce laminitis. Therefore horses treated with such preparations should be monitored frequently during the treatment period.

Because of the pharmacological properties of the active ingredient, special care should be taken when the product is used in animals with a weakened immune system.

Except in cases of acetonæmia and induction of the parturition, corticoid administration is to induce an improvement in clinical signs rather than a cure. The underlying disease should be further investigated. When treating groups of animals, use a draw-off needle to avoid excessive broaching of the stopper.

Following intra-articular administration, use of the joint should be minimized for one month and surgery on the joint should not be performed within eight weeks of use of this route of administration.

Only the 25 ml vial should be used to treat cats, dogs and small piglets to prevent excessive puncturing of the closure. See section 4.6.

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

In case of accidental self-injection, seek medical advice immediately and show the package leaflet to the physician.

People with known hypersensitivity to the active substance or any of the excipients should avoid contact with the veterinary medicinal product.

Pregnant women should not handle this veterinary medicinal product.

## 4.6 Adverse reactions (frequency and seriousness)

Corticosteroids are known to exert a wide range of side-effects. Whilst single high doses are generally well tolerated, they may induce severe adverse reactions with long term use and when esters possessing a long duration of action are administered. Dosage in medium to long term use should therefore generally be kept to the minimum necessary to control clinical signs.

Steroids themselves, during treatment, may cause iatrogenic hyperadrenocorticism (Cushings disease) involving significant alteration of fat, carbohydrate, protein and mineral metabolism, e.g. redistribution of body fat, increase in body weight, muscle weakness and wastage and osteoporosis may result.

During therapy effective doses suppress the hypothalamo-pituitreal adrenal axis. Following cessation of treatment, signs of adrenal insufficiency extending to adrenocortical atrophy can arise and this may render the animal unable to deal adequately with stressful situations. Consideration should therefore be given to means of minimising problems of adrenal insufficiency following the withdrawal of treatment (for further information see standard texts).

Systemically administered corticosteroids may cause polyuria, polydipsia and polyphagia, particularly during the early stages of therapy. Some corticosteroids may cause sodium and water retention and hypokalaemia in long term use.

Systemic corticosteroids have caused deposition of calcium in the skin (calcinosis cutis).

Corticosteroid use may delay wound healing and the immunosuppressant actions may weaken resistance to or exacerbate existing infections. In the presence of bacterial infection, concurrent antibacterial therapy is usually required. In the presence of viral infections, corticosteroids may worsen or hasten the progress of the disease.

Gastrointestinal ulceration has been reported in animals treated with corticosteroids and g.i.t. ulceration may be exacerbated by steroids in patients given non-steroidal anti-inflammatory drugs and in animals with spinal cord trauma.

Corticosteroid use may cause enlargement of the liver (hepatomegaly) with increased serum hepatic enzymes and may increase the risk of acute pancreatitis. Other possible adverse reactions associated with corticosteroid use include changes in blood biochemical and haematological parameters.

Transient hyperglycaemia can occur.

## 4.7 Use during pregnancy, lactation or lay

Do not administer the product in pregnant females, except where the intention is to induce parturition. Administration in early pregnancy is known to have caused foetal abnormalities in laboratory animals. Administration in late pregnancy is likely to cause abortion or early parturition in ruminants and may have a similar effect in other species. Use of the veterinary medicinal product in lactating cows may cause a reduction in milk yield.

Refer to section 4.4.

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

Concurrent use with non-steroidal anti-inflammatory drugs may exacerbate gastrointestinal tract ulceration.

Because corticosteroids can reduce the immunoresponse to vaccination, dexamethasone should not be used in combination with vaccines or within two weeks after vaccination.

Administration of dexamethasone may induce hypokalaemia and hence increase the risk of toxicity from cardiac glycosides. The risk of hypokalaemia may be increased if dexamethasone is administered together with potassium depleting diuretics.

Concurrent use with anticholinesterase may lead to increased muscle weakness in patients with myasthenia gravis.

Glucocorticoids antagonise the effects of insulin.

Concurrent use with phenobarbital, phenytoin and rifampicin can reduce the effects of dexamethasone.

## 4.9 Amounts to be administered and administration route

For intravenous, intramuscular, intra-articular intrabursal or local administration in horses.

For intramuscular injection in cattle, pigs, dogs and cats.

For the treatment of inflammatory or allergic conditions the following average doses are advised. However the actual dose used should be determined by the severity of the signs and the length of time for which they have been present.

Species	Dosage
Horses, cattle, pigs	0.06 mg/kg body weight corresponding to 1.5 ml/50 kg
Dog, cat	0.1 mg/kg body weight corresponding to 0.5 ml/10 kg

Doses may be repeated once at 24-48 hour intervals if required. Injection sites should be alternated.

For the treatment of primary ketosis in cattle (acetonaemia)

0.02 to 0.04 mg/kg body weight corresponding to 5-10 ml per cow given by intramuscular injection is advocated dependent on the size of the cow and the duration of the signs. Care should be taken not to overdose Channel Island breeds. Larger doses will be required if the signs have been present for some time or if relapsed animals are being treated. In most early cases a single dose will effect a cure but the dose may be repeated at 48 hour intervals if necessary.

For the induction of parturition -

0.04 mg/kg body weight corresponding to 10 ml per cow as a single intramuscular injection after day 270 of pregnancy. Parturition will normally occur within 48-72 hours. If calving does not occur within these periods the dose may be repeated.

For the treatment of arthritis, bursitis or tenosynovitis by single intra-articular, intrabursal or local injection in the horse

Dosage            1-5 ml

These quantities are not specific and are quoted purely as a guide. Injections into joint spaces or bursae should be preceded by the removal of an equivalent volume of synovial fluid. Strict asepsis is essential.

To measure small volumes of less than 1 ml a suitably graduated syringe should be used to ensure accurate administration of the correct dose.

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

An overdose can induce drowsiness and lethargy in horses. Refer to section 4.6.

## 4.11 Withdrawal Period(s)

Cattle meat and offal: 7 days

milk: 72 hours

Pig meat and offal: 2 days

Horse meat and offal: 11 days.

## 5 PHARMACOLOGICAL or IMMUNOLOGICAL PROPERTIES

Pharmacotherapeutic group: corticosteroid for systemic use, glucocorticoid.

ATCvet code: QH02AB02

## 5.1 Pharmacodynamic properties

This preparation contains the sodium phosphate ester of dexamethasone, a fluoro-methyl derivative of which is a potent glucocorticoid with minimal mineralocorticoid activity. Dexamethasone has ten to twenty times the anti-inflammatory activity of prednisolone. Corticosteroids suppress the immunologic response by inhibition of dilatation of capillaries, migration and function of leucocytes and phagocytosis. Glucocorticoids have an effect on metabolism by increasing gluconeogenesis.

## 5.2 Pharmacokinetic properties

Following intramuscular injection this soluble ester of dexamethasone is readily absorbed and hydrolysed to the parent alcohol giving a prompt response which is maintained for approximately 48 hours.  $T_{\max}$  in cattle, horses, pigs and dogs is reached within 20 minutes following intramuscular administration.  $T_{1/2}$  varies per species between 5 and 20 hours. Bioavailability after intramuscular administration is almost 100%. Dexamethasone has a medium duration of activity.

## 6 PHARMACEUTICAL PARTICULARS

### 6.1 List of excipients

Sodium chloride  
Sodium citrate dihydrate (E331)  
Benzyl alcohol (E1519)  
Citric acid monohydrate  
Sodium hydroxide  
Water for injections

### 6.2 Incompatibilities

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

### 6.3 Shelf-life

Shelf-life of the veterinary medicinal product as packaged for sale in 50 ml and 100 ml vials: 24 months.  
Shelf-life of the veterinary medicinal product as packaged for sale in 25 ml vials: 18 months.  
Shelf-life after first opening the immediate packaging: 28 days.

### 6.4 Special precautions for storage

Do not store above 25°C. Do not freeze. Keep vial in the outer carton.

### 6.5 Nature and composition of immediate packaging

- Vial
  - \* volume 25 ml (filled in 30 ml vial), 50 ml and 100 ml;
  - \* glass type I; quality Ph.Eur.
  - \* uncoloured;

- Stopper
  - \* bromobutyl rubber stopper type I
  - \* secured with aluminium cap

Not all pack sizes may be marketed.

## **6.6 Special precautions for the disposal of unused veterinary medicinal products or waste materials**

Any unused veterinary medicinal product or waste material derived from such veterinary medicinal products should be disposed of in accordance with local requirements.

## **7 MARKETING AUTHORISATION HOLDER**

Eurovet Animal Health B.V.  
Handelsweg 25  
5531 AE Bladel  
The Netherlands

## **8 MARKETING AUTHORISATION NUMBER(S)**

VPA 10989/56/1

## **9 DATE OF THE FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION**

4<sup>th</sup> April 2008

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

27<sup>th</sup> February 2008