

## **SUMMARY OF PRODUCT CHARACTERISTICS**

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

Equiparin 50.000 IU/100 g gel for horses

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

100 g gel contain:

#### **Active substances:**

|                         |             |
|-------------------------|-------------|
| Heparin sodium          | 50 000 I.U. |
| Hydroxyethyl salicylate | 5.0 g       |
| Levomenthol             | 0.5 g       |

#### **Excipient(s):**

|                              |         |
|------------------------------|---------|
| Chlorophyllin copper (E 141) | 0.004 g |
|------------------------------|---------|

For a full list of excipients, see section 6.1.

### **3. PHARMACEUTICAL FORM**

Gel

Clear green cutaneous gel.

### **4. CLINICAL PARTICULARS**

#### **4.1 Target species**

Horses

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

For the treatment of local inflammatory swellings and bruising, including tendonitis, tenosynovitis, bursitis and other acute inflammatory conditions of the musculo-skeletal system in the horse.

Equiparin also promotes the early reabsorption of haematoma and oedematous swelling resulting from such conditions.

#### **4.3 Contraindications**

Do not use in case of hypersensitivity to the active substances or to any of the excipients.

Not permitted for use in mares producing milk for human consumption.

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

None.

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

##### **Special precautions for use in animals**

Avoid contact with the eyes.

Do not apply to open wounds.

Do not apply to mucous membranes or skin lesions.

Discontinue if side effects such as signs of discomfort or swelling occur.

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

Avoid contact with open wounds or with the eyes.  
Impervious gloves should be worn when applying the product.  
In case of accidental contact with the eye or skin, the affected eye(s) or skin should be washed with copious quantities of water and medical advice sought as necessary.  
In case of accidental ingestion, seek medical advice immediately and show the package leaflet or the label to the physician.  
People with known hypersensitivity to any of the active ingredients or excipients should avoid contact with the veterinary medicinal product.

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

Animals may, infrequently, experience a mild skin reaction (which includes hair loss and blisters) following use of this product. If this occurs any remaining product should be thoroughly washed off, product use discontinued and veterinary attention sought.

#### **4.7 Use during pregnancy, lactation or lay**

No clinical data are available on the topical use of the product during pregnancy. The safety of the product has not been established during pregnancy and lactation.

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

None known.

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

Gel for Cutaneous Use.

Prior to application ensure that the area to be treated is clean and dry. Apply up to a total daily quantity of 50 g Equiparin per day to the intact skin using fingertip pressure onto the affected area according to the veterinary surgeon's instructions until signs and symptoms resolve.

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

None known.

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

Meat and offal                0 days

Not permitted for use in mares producing milk for human consumption.

### **5. PHARMACOLOGICAL PROPERTIES**

#### **Pharmacotherapeutic group:**

Preparations with salicylic acid derivatives in combinations for topical application

**ATCvet Code:** QM02AC99

#### **5.1 Pharmacodynamic properties**

The product has been shown to increase the blood flow through the underlying skin.

#### Heparin

Heparin inhibits blood coagulation. Owing to its strong anionic charge, it forms a complex with cationic protein bodies. This applies particularly to antithrombin III (AT

III), a  $\alpha_2$ -globulin and endogenous inhibitor of the coagulation system, leading to a significant increase in its inhibitor reaction speed.

The essential action mechanism is the activation of AT III, which for its part inhibits thrombin and other serine proteases. Thus, not only thrombin (IIa), but also the activated factors XIIa, IXa, Xa and kallikrein are inactivated. This inactivation is dose-dependent.

Heparin also possesses a lipolysis-promoting action by activating the clearing factor and catalysing the release of lipoprotein lipase from endothelial cells, whereby large-molecular chylomicrons are solubilised in the plasma.

Heparin is involved in allergic and anaphylactic reactions. Heparin and histamine are released in the degranulation of mast cells. In haemostasis caused by shock, the presence of heparin reduces the coagulability of the blood. In addition, heparin acts as a mediator in the release of the histamine-degrading enzyme diamine oxidase.

#### Hydroxyethyl salicylate

Hydroxyethyl salicylate, an ester of salicylic acid, is very readily absorbed.

The salicylic acid released after absorption has an analgesic and anti-inflammatory effect. The action mechanism lies in the inhibition of prostaglandin synthesis and reduced formation of the pain-producing bradykinin from its precursors.

The released salicylic acid supports the antithrombotic effect of heparin by means of inhibition of platelet aggregation.

The keratolytic properties of salicylic acid further loosen the epidermis and facilitate absorption of the other active substances.

#### Levomenthol

Levomenthol dissolved in alcohol has an antipruritic effect when applied to the skin and a mild local anaesthetic effect on the sensitive nerve endings of the skin.

At the same time it stimulates the cold receptors in the epidermis, whereby a cooling effect is felt, which is increased by the evaporation of the alcohol on the skin surface.

|                          |                                           |
|--------------------------|-------------------------------------------|
| Heparin:                 | Antithrombotic                            |
| Hydroxyethyl salicylate: | Anti-inflammatory, analgesic; keratolytic |
| Levomenthol:             | Local anaesthetic, antipruritic           |

## **5.2 Pharmacokinetic particulars**

### Heparin

After absorption through the skin, heparin develops its complex effects in the superficial subcutaneous tissue. Penetration through healthy skin is dose-dependent and is proven for concentrations of 300 IU/g and above. After application to the skin, no systemically therapeutic concentrations are reached.

### Hydroxyethyl salicylate

The salicylate is readily released from the hydrophilic gel base of Equiparin Gel and rapidly absorbed through the skin. In the tissue it is metabolised into salicylic acid and ethylene glycol. Part of the salicylate is degraded by oxidation and the rest is bound to glucuronic acid and excreted renally. Ethylene glycol is oxidised and excreted as oxalate.

### Levomenthol

Levomenthol is absorbed through the skin. It is metabolised in the liver by hydroxylation and subsequent glucuronidation.

## **6. PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

Chlorophylline copper (E141),  
Carbomer 980,  
Isopropyl alcohol,  
Macrogol glycerol cocoate,  
Propylene glycol,

Trometamol (for pH adjustment),  
Purified water

### **6.2 Incompatibilities**

None known.

### **6.3 Shelf life**

Shelf-life of the veterinary medicinal product as packaged for sale: 18 months  
Shelf-life after first opening the container: 6 months

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

Do not store above 30°C.  
Do not freeze.

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

190g (200ml) gel filled in an opaque polyethylene bottle. The closure system consists of a cap with a screw.  
Pack size: 1 bottle, 6 x 1 bottle in a cardboard box.

Not all pack size 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**

aniMedica GmbH  
Im Südfeld 9  
48308 Senden-Bösensell  
Germany

## **8. MARKETING AUTHORISATION NUMBER**

Vm 24745/4004

**9. DATE OF FIRST AUTHORISATION**

29 January 2010

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

December 2014

Approved:  03/12/2014