

# Summary of Product Characteristics

## 1 NAME OF THE VETERINARY MEDICINAL PRODUCT

Qivitan LC 75 mg intramammary ointment for lactating cows

## 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each prefilled syringe of 8 g contains:

### Active substance:

Cefquinome 75 mg  
(as cefquinome sulfate 88.92 mg)

### Excipients:

For the full list of excipients, see section 6.1.

## 3 PHARMACEUTICAL FORM

Intramammary ointment  
White to slightly yellow, oily viscous homogeneous ointment.

## 4 CLINICAL PARTICULARS

### 4.1 Target Species

Cattle (lactating cows).

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

For the treatment of clinical mastitis in the lactating cow caused by the following cefquinome-sensitive organisms: *Streptococcus uberis*, *Streptococcus dysgalactiae*, *Staphylococcus aureus* and *Escherichia coli*.

### 4.3 Contraindications

Do not use in known cases of hypersensitivity to cephalosporin antibiotics, other  $\beta$ -lactam antibiotics 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 product should be reserved for the treatment of clinical conditions which have responded poorly or are expected to respond poorly to other classes of antimicrobials or narrow spectrum  $\beta$ -lactam antimicrobials. Use of the product should be based on susceptibility testing of the bacteria isolated from the animal. If it is not possible, therapy should be based on local (regional, farm level) epidemiological information about susceptibility of the target bacteria.

Official, national and regional antimicrobial policies should be taken into account when the product is used.

Use of the product deviating from the instructions given in the SPC may increase the prevalence of bacteria resistant to cefquinome and may decrease the effectiveness of treatment with cephalosporins due to the potential for cross-resistance.

The feeding to calves of milk containing residues of cefquinome (i.e. milked during treatment) should be avoided due to selection for antimicrobial-resistant bacteria.

Do not use the cleaning towel if lesions are present on the teat.

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

When infusing the product, protective gloves should be worn to avoid skin contact.

Penicillins and cephalosporins may cause hypersensitivity (allergy) following injection, inhalation, ingestion or skin contact. Hypersensitivity to penicillins may lead to cross-sensitivity to cephalosporin and vice versa. Allergic reactions to these substances may occasionally be serious.

1. Do not handle this product if you know you are sensitised, or if you have been advised not to work with such preparations.
2. Handle this product with great care to avoid exposure, taking all recommended precautions.
3. If you develop symptoms following exposure, such as skin rash, you should seek medical advice and show the Doctor this warning. Swelling of the face, lips and eyes or difficulty in breathing are more serious symptoms and require urgent medical attention.

The cleaning towels provided with this product contain isopropyl alcohol and benzalkonium chloride, which may cause skin irritation in some people. It is recommended to wear protective gloves when using the towels.

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

Anaphylactic reactions have been noted in animals in very rare cases after administration of the product.

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**

The product is intended for use during lactation. There is no available information indicating reproductive toxicity (inc. teratogenicity) in cattle. In reproductive toxicity studies in laboratory animals cefquinome did not reveal any effect on reproduction or teratogenic potential.

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

None known.

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

For intramammary use.

The content of one syringe should be infused gently into the teat of the infected quarter every 12 hours after each of three successive milkings.

Milk out the affected quarter(s). After thoroughly cleaning and disinfecting the teat and teat orifice with the cleaning towel provided remove the cap from the nozzle without touching the nozzle with the fingers. Gently infuse the contents of one syringe into each affected quarter. Disperse the product by gentle massage of the teat and udder of the affected animal.

The syringe must only be used once. Partly used syringes should be discarded.

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

No symptoms expected or emergency procedures required.

#### 4.11 Withdrawal period(s)

Meat and offal: 4 days  
Milk: 5 days (120 hours).

### 5 PHARMACOLOGICAL or IMMUNOLOGICAL PROPERTIES

Pharmacotherapeutic group: Antibacterials for intramammary use, fourth generation cephalosporins, cefquinome.  
ATCvet code: QJ51DE90

#### 5.1 Pharmacodynamic properties

Cefquinome is an antibacterial drug of the cephalosporin group which acts by inhibition of cell wall synthesis. It is characterised by its broad therapeutic spectrum of activity and a high stability against beta-lactamases.

*In vitro*, Cefquinome has antibiotic activity against common Gram negative and Gram positive bacteria including *Escherichia coli*, *Staphylococcus aureus*, *Streptococcus dysgalactiae* and *Streptococcus uberis*. The highest MIC<sub>90</sub> value was found for *Staphylococcus aureus*. This pathogen has a MIC<sub>90</sub> in the range of 1 mcg/ml.

As a fourth generation cephalosporin, cefquinome combines high cellular penetration and a high beta-lactamases stability. In contrast to cephalosporins of previous generations, cefquinome is not hydrolysed by chromosomally-encoded cephalosporinases of the Amp-C type or by plasmid mediated cephalosporinases of some enterobacterial species. Resistance mechanism in Gram negative organisms due to extended spectrum beta-lactamases (ESBL) and in Gram positive organisms due to alteration of penicillin binding proteins (PBPs) may lead to cross-resistance with other beta-lactams.

#### 5.2 Pharmacokinetic particulars

After intramammary administration, a mean concentration of 19 mcg/ml in milk is observed 12 hours post last infusion.

At the second milking following the last infusion the mean concentration is still approximately 2.5 mcg/ml and then falls to 0.75 mcg/ml at the third milking post last infusion.

### 6 PHARMACEUTICAL PARTICULARS

#### 6.1 List of excipients

White soft paraffin  
Liquid paraffin

## **6.2 Major 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: 2 years.

## **6.4 Special precautions for storage**

Do not store above 25°C.

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

Prefilled 8 g single-dose intramammary syringe consisting of white opaque LDPE barrel with white opaque LDPE plunger and white opaque LDPE cap.

Cleaning towels (smooth, white crepe paper impregnated with isopropyl alcohol/benzalkonium chloride) individually wrapped.

Cardboard boxes of 3 syringes and 3 cleaning towels.

Cardboard boxes of 12 syringes and 12 cleaning towels.

Cardboard boxes of 24 syringes and 24 cleaning towels.

Cardboard boxes of 36 syringes and 36 cleaning towels.

Not all pack sizes may be marketed.

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

LIVISTO Int'l, S.L.

Av. Universitat Autònoma, 29

08290 Cerdanyola des Vallès

Barcelona

Spain

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

VPA10425/006/001

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

Date of first authorisation: 1<sup>st</sup> June 2018

**10 DATE OF REVISION OF THE TEXT**

June 2018