

## MARBOCYL 2%

### Fluoroquinolone Antibiotic Injection

#### Active Ingredient:

Marbofloxacin 20g/L

Marbofloxacin is a synthetic, bactericidal antimicrobial, belonging to the fluoroquinolone group, which acts by inhibition of DNA gyrase. It is effective against a wide range of Gram positive bacteria (in particular *Staphylococci*) and Gram negative bacteria (*Escherichia coli*, *Salmonella typhimurium*, *Citrobacter freundii*, *Enterobacter cloacae*, *Serratia marcescens*, *Morganella morganii*, *Proteus spp*, *Klebsiella spp*, *Shigella spp*, *Pasteurella spp*, *Haemophilus spp*, *Moraxella spp*, *Pseudomonas spp*, *Brucella canis*, as well as *Mycoplasma spp*.

After subcutaneous or intramuscular administration in cattle and intramuscular administration in pigs at the recommended dose of 2 mg/kg, marbofloxacin is readily absorbed and reaches maximal plasma concentrations of 1.5µg/ml within less than 1 hour.

Its bioavailability is close to 100%. It is weakly bound to plasma proteins (less than 10% in pigs and 30% in cattle), extensively distributed and in most tissues (liver, kidney, skin, lung, bladder, uterus) it achieves higher concentrations than in plasma.

In cattle, marbofloxacin is eliminated slowly in pre-ruminating calves ( $t_{1/2}$  = 5-9 hours) but faster in ruminant calves ( $t_{1/2}$  = 4-7 hours) predominantly in the active form in urine and faeces (3/4 in pre-ruminating calves, ½ in ruminants).

In pigs, marbofloxacin is eliminated slowly predominantly in the active form in urine (2/3) and faeces (1/3).

#### Administration Method:

Injectable, I/V I/M S/C

#### Indications:

**In cattle:** Marbofloxacin 2% is indicated in the treatment of respiratory and other infections caused by susceptible strains of organisms.

**In sows:** Marbofloxacin 2% is indicated in the treatment of Metritis Mastitis Agalactia Syndrome and other infections caused by susceptible strains of organisms.

#### Dosage:

The recommended dosage is 2mg/kg (1ml/10kg bw) in a single daily injection by subcutaneous, intramuscular or intravenous routes in cattle and by intramuscular route in pigs.

Treatment duration is 3 days in pigs and 3 to 5 days in cattle.

#### Warnings and Contra-indications:

Administration by the intramuscular route may cause transient local reactions such as pain and swelling at the injection site and inflammatory lesions which persist at least 12days after injection. However, in cattle subcutaneous route was shown to be better tolerated locally than intramuscular route. Therefore, the subcutaneous route is recommended in heavy cattle. For the injections, the neck should be preferred in cattle and pigs.

No other undesirable effects have been observed in cattle and pigs.

Marbofloxacin may be used in pregnant and lactating cows and sows.

No sign of over dosage has been observed after administration of 3 times the recommended dose.

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Over dosage may cause signs in the form of acute neurological disorders, which would have to be treated symptomatically.

Indiscriminate use of the product could contribute to the development of antibiotic resistance. The product should only be used in individual cases of serious infections that are not likely to respond to any other antibiotic.

The product must not be used to treat groups of food producing animals unless bacteriology has confirmed the diagnosis and sensitivities have shown that it is the only alternative that is likely to be effective.

Following withdrawal of the first dose, use the product within 28 days.

### Withholding period:

Milk intended for human consumption must be discarded during treatment and for 1 milking (24 hours) following the last treatment.

Cattle producing meat and offal for human consumption must not be slaughtered during or within 6 days of the last treatment.

Pigs producing meat and offal for human consumption must not be slaughtered during or within 4 days of the last treatment.

### Packaging:

100ml amber glass vials, comply to European Pharmacopoeia, 3<sup>rd</sup> Edition. Vials have chlorbutyl rubber stoppers (comply to European Pharmacopoeia, 3<sup>rd</sup> Edition) and aluminium caps.

Secondary packaging is of pre-shaped cardboard boxes.

### Physio-chemical properties of the formulated product:

|                             |               |
|-----------------------------|---------------|
| Flashpoint:                 | not flammable |
| Oxidising properties:       | non-oxidising |
| Corrosive properties:       | non-corrosive |
| Acidity/alkalinity (pH):    | 3-4.5         |
| Density (specific gravity): | 1.025         |

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No A8204  
**RESTRICTED VETERINARY MEDICINE**  
Marbocyl 2%  
For Animal Treatment Only

