

# Metri-Cef 3<sup>®</sup>

Intrauterine suspension  
Antibiotic infusion for dairy cattle

agrovvetmarket s.a.

## FORMULATION

Each 30 mL contains:	
Cephalexin monohydrate, (Base).....	600 mg
Neomycin sulfate, (Base).....	1.02 g
Cloxacillin benzathine.....	1.50 g
Vitamin A.....	30,000 IU
Slow release vehicle.....	750 mg
Excipients.....q.s.ad.....	30 mL

## INDICATIONS

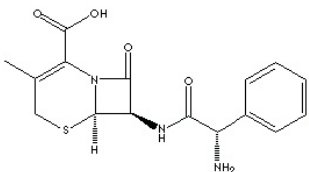
Metri-Cef 3<sup>®</sup> is indicated for the treatment and prevention of metritis (clinc and subclinc) and pimetra in cattle, caused by sensitive germs to any of the antibiotics in the formula.

The treatment with Metri-Cef 3<sup>®</sup> is indicated for those animals with subclinics and/or resistant uterine infections to other antibiotic therapies.

## CHARACTERISTICS AND SPECTRUM

The association of its three antibiotics offers a complete effectivity against the bacterias that causes infection problems in the uterus:

### Cephalexin:



Formula: C<sub>15</sub>H<sub>17</sub>N<sub>3</sub>O<sub>4</sub>S  
M.W.: 347.39

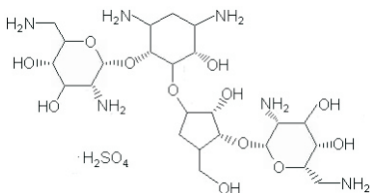
CAS N°: 15686-71-2

Cephalosporins are beta-lactam antibiotics that produces its bactericide effect through the cellular wall synthesis inhibition.

The cephalaxin is a first generation cephalosporin, bactericide antibiotic that has been demonstrated to be effective in the treatment and prevention of bacterial infections. Its effectivity is immediate, showing its action in the first 24 hours after the application of the product.

It eliminates during the first bacterial barrier. It is active against most Gram positive (between them *Staphylococcus* spp.) and some Gram negative bacterias, including *E. coli*, *Proteus* spp., *Klebsiella* spp., *Salmonella* spp., *Shigella* spp. and *Enterobacter* spp., also the *Staphylococcus penicillinase* positive, however it has no activity against *Enterobacter* spp., *P. aeruginosa* and *Serratia* spp., among others. The acquired resistant is present in Gram negative bacterias and it is particular important in the Enterobacterias.

### Neomycin sulfate:



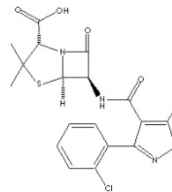
Formula: C<sub>23</sub>H<sub>48</sub>N<sub>10</sub>O<sub>13</sub>H<sub>2</sub>SO<sub>4</sub>  
Mol. W.: 908.87

CAS N°: 1405-10-3

Neomycin is an aminoglycoside antibiotic, which is obtained from the *Streptomyces fradiae* cultives. In association with the long duration excipient present in the formula it extends its action for four weeks. The neomycin is the most used antibiotic in drug combination due to its wide spectrum.

Acts by the disorganization of the bacterial protein synthesis, fixing irreversibly to the ribosomal subunit 30S. It has a bactericide action against aerobic and some anaerobic bacterias. Its bactericide activity covers a great number of Gram negatives bacterias, including *E. coli*, *Klebsiella pneumoniae*, *Haemophilus* spp., *Enterobacter* spp., *Pasteurella* spp., *Serratia* spp., *Neisseria* spp., *Proteus* spp., *Salmonella* spp., *Shigella* spp. and *Pseudomonas aeruginosa* and its spectrum covers also a reduced number of Gram positive bacterias as *Staphylococcus aureus*.

### Cloxacillin benzathine:



Formula: C<sub>23</sub>H<sub>29</sub>ClN<sub>3</sub>O<sub>5</sub>S  
M.W.: 435.9  
CAS N°: 23736-58-5

The cloxacillin is a semi-synthetic antibiotic, bactericide, belonging to the penicillin group, acts interfering the bacterial cellular wall development, inhibits the mureine construction (a component of the cellular wall), by ralentization of the activity of the transpeptidase.

Its chemical structure makes it stable, impeding the access of  $\beta$ -lactamic enzymes. Its action is against gram positive bacterias as *Estreptococos*, *Estafilococos*, some *Corynebacterias*, *Enrysipelothrix rhusiopathiae*, *Clostridium* spp., *Bacillus anthracis*; but also against some Gram negative like *Leptospira canicola*, *Campylobacter foetus* and *Actinomyces* spp.

### Vitamin A:

Also, Metri-Cef 3<sup>®</sup> contains vitamin A, that works as an epithelium and mucus membrane regenerator and protector. The addition of vitamin A, reduces the consequences of the infectious process and participates maintaining the tissue integrity.

### DOSAGE AND ADMINISTRATION

Metri-Cef 3<sup>®</sup> is administered by intrauterine infusion. The dose is a syringe of 30 mL per animal, which should be introduced in the uterus using the attached pipette, according to the following indications:

It is recommended to wash with isotonic solution and evacuate the content before the application of Metri-Cef 3<sup>®</sup>.

The person in charge of the treatment should wash and dry its hands previously.

Remove the cap of the syringe.

Introduce the pipette in the entrance of the syringe.

Put on the obstetric glove.

Inject all the content of the syringe.

In severe cases the treatment should be repeated after 07 days from the first dose, previous to clinic evaluation. For recidivist cows administer a syringe after 24 hours after the artificial insemination. Due to the nature of its package and the no-reabsorption of the active ingredient, Metri-Cef 3<sup>®</sup> presents a wide safety margin, making an overdose impossible.

### WITHDRAWAL PERIOD

Metri-Cef 3<sup>®</sup> does not have withdrawal period in milk. In meat is two days.

### CONTRAINDICATIONS

Contraindicated in animals with an hypersensitivity to any of the active ingredients. In case of a hypersensitivity reaction administer an antihistaminic.

### PRECAUTIONS AND WARNING

Metri-Cef 3<sup>®</sup> should be administered with precaution to animals that have shown an allergy reaction, particularly to penicillin. Those reactions are rare, however, if they show up, discontinue the treatment and consult the veterinarian.

- Do not apply before 20 days post-partum.
- Do not administer the content of the syringe of Metri-Cef 3<sup>®</sup> if the protector cap is broken or damage.
- Administer the product only by the indicated route.
- Keep out of reach of children.
- Agrovvet Market S.A. is not responsible for the damages resulting from a different use than indicated.

### STORAGE

Store in a dry and cool place, protected from light. Do not expose to extreme temperatures. Keep out of reach of children.

### COMMERCIAL PRESENTATION

Box containing 01 syringe of 30 mL, obstetric glove and dose pipette.

Reg. SENASA Perú: F.03.34.N.111; Reg. Guatemala: 19-29-213-12,264; Reg. Honduras:PF-3877; Reg. Panamá: RF-4238-08; Reg. Venezuela: MAT-SASA-M.I. 12.748

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