ANNEX I

SUMMARY OF PRODUCT CHARACTERISTICS
(Based on the current SPC of the reference product
Baytril RSI 100 mg/ml Injektionslösung für Rinder und Schweine)
1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Baytril Direct 100 mg/ml Injektionslösung für Rinder und Schweine [AT]
Baytril Inject – Soluzione iniettabile 100mg/ml per bovini e suini [IT]
Baytril XM 100 mg/mL Solution injectable pour bovins et porcs [FR]
Baytril Inject 100 mg/ml Injektionslösung für Rinder und Schweine [DE]
Baytril Max 100 mg/ml Solution for Injection for Cattle and Pigs[IE, UK]

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

1 ml contains:

**Active substance:**
Enrofloxacin 100 mg

**Excipient(s):**
n-Butanol 30 mg
Benzyl alcohol (E 1519) 20 mg

For a full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Solution for injection
Clear, yellow solution

4. CLINICAL PARTICULARS

4.1 Target species

Cattle, Pig

4.2 Indications for use, specifying the target species

Cattle:
For the treatment of respiratory tract infections caused by enrofloxacin-sensitive *Histophilus somni, Mannheimia haemolytica, Pasteurella multocida* and *Mycoplasma* spp.
For the treatment of Mastitis caused by enrofloxacin-sensitive *E. coli.*

Pig:
For the treatment of bacterial bronchopneumonia caused by enrofloxacin-sensitive *Actinobacillus pleuropneumoniae, Pasteurella multocida* and complicated by *Haemophilus parasuis* as secondary pathogen in pigs.

4.3 Contraindications

Do not use in the presence of documented hypersensitivity to the pharmacologically active ingredient or to any of the other ingredients. Do not use in animals with central nervous system-associated seizure disorders. Do not use in the presence of existing disorders of cartilage development or musculoskeletal damage around functionally significant or weight-bearing joints. Do not use for prophylaxis.

4.4 Special warnings for each target species
Do not use in case of resistance against other fluoroquinolone due to the potential for cross-resistance.

4.5 **Special precautions for use**

**Special precautions for use in animals**

For repeated injection or for injection volumes exceeding 15 ml (cattle) or 7.5 ml (pigs, calves) in divided doses, a new site must be chosen for each injection. Official and local antimicrobial policies should be taken into account when the product is used. Fluoroquinolones should be reserved for the treatment of clinical conditions which have responded poorly, or are expected to respond poorly, to other classes of antimicrobials. Whenever possible, fluoroquinolones should only be used based on susceptibility testing. Use of the product deviating from the instructions given in the SPC may increase the prevalence of bacteria resistant to the fluoroquinolones and may decrease the effectiveness of treatment with other quinolones due to the potential for cross resistance. Enrofloxacin is eliminated renally. As with all fluoroquinolones, delayed excretion can therefore be expected in the presence of existing renal damage.

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

People with known hypersensitivity to (fluoro)quinolones should avoid contact with the veterinary medicinal product. Direct contact with the skin should be avoided due to sensitisation, contact dermatitis and possible hypersensitivity reactions. Wash any splashes from skin or eyes immediately with water. Do not eat, drink or smoke while handling the product. Take care to avoid accidental self-injection. In case of accidental self-injection, seek medical advice immediately and show the package leaflet or label to the physician.

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

In rare cases, transitory inflammatory reactions (swelling, redness) can occur at the injection site. These regress within a few days without further therapeutic measures. In rare cases, intravenous treatment can cause shock reactions in cattle, probably as a result of circulatory disturbances. Gastrointestinal disturbances may occur in isolated cases during treatment of calves.

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

May be used during pregnancy and lactation.

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

Antagonist effects due to concurrent administration of macrolides and tetracyclines may occur. Enrofloxacin may interfere with the metabolism of theophylline, decreasing theophylline clearance resulting in increased plasma levels of theophylline.

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

**Cattle:**

The dosage for respiratory disease is 7.5 mg enrofloxacin per kg body weight (BW) for a single treatment by subcutaneous administration (s.c.).

This is equivalent to
Do not administer more than 15 ml (cattle) or 7.5 ml (calf) per injection site (s.c.).
In case of serious or chronic respiratory disease a second injection may be required after 48 hours.

The dosage for the treatment of colimastitis is 5 mg enrofloxacin per kg body weight (BW) by intravenous administration (i.v.).

This is equivalent to

| 5 ml of the product per 100 kg BW and day |

The treatment of colimastitis should be exclusively by intravenous application on 2 to 3 consecutive days.

Pig:
The dosage for respiratory tract infections is 7.5 mg enrofloxacin per kg body weight for a single administration.

This is equivalent to

| 0.75 ml of the product per 10 kg BW and day |

Method of administration:

Cattle:
For subcutaneous injection (respiratory disease) or for intravenous injection (colimastitis)

Pig:
For intramuscular injection into the neck muscles behind the ear.

To ensure administration of the correct dosage, body weight should be determined as accurately as possible to avoid underdosing. The stopper may be safely punctured up to 20 times.

4.10 Overdose (symptoms, emergency procedures, antidotes), if necessary
In cattle a dose of 25 mg/kg bodyweight administered by the subcutaneous route for 15 consecutive days is tolerated without any clinical symptoms. Higher doses in cattle and doses of around 25 mg/kg and above in pig may cause lethargy, lameness, ataxia, slight salivation and muscle tremors.

Do not exceed the recommended dose. In accidental overdose there is no antidote and treatment should be symptomatic.

4.11 Withdrawal period(s)
Cattle:
Meat and offal:

- s.c.: 14 days
- i.v.: 7 days

Milk:

- s.c.: 120 hours
- i.v.: 72 hours
5. PHARMACOLOGICAL PROPERTIES

Pharmacotherapeutic group: Fluoroquinolones, ATCvet code: QJ01MA90

5.1 Pharmacodynamic properties

Enrofloxacin has a spectrum of activity which includes enrofloxacin-sensitive *Histophilus somni*, *Mannheimia haemolytica*, *Pasteurella multocida*, *Mycoplasma* spp., *E. coli* in cattle as well as *Actinobacillus pleuropneumoniae*, *Pasteurella multocida* and complicated by *Haemophilus parasuis* as secondary pathogen in pigs.

Enrofloxacin belongs to the fluoroquinolone group of antibiotics. The substance has bactericidal activity which is mediated by binding to subunit A of DNA gyrase and the resulting selective inhibition of this enzyme. DNA gyrase is a topoisomerase. These enzymes are involved in the replication, transcription and recombination of bacterial DNA. Fluoroquinolones also influence bacteria in the stationary phase by altering cell wall permeability.

Resistance to fluoroquinolones has been reported to arise from five sources, (i) point mutations in the genes encoding for DNA gyrase and/or topoisomerase IV leading to alterations of the respective enzyme, (ii) alterations of drug permeability in Gram-negative bacteria, (iii) efflux mechanisms, (iv) plasmid mediated resistance and (v) gyrase protecting proteins. All mechanisms lead to a reduced susceptibility of the bacteria to fluoroquinolones. Cross-resistance within the fluoroquinolone class of antimicrobials is common.

The inhibitory and bactericidal concentrations of enrofloxacin are very close, being either identical or differing by no more than 1-2 dilution steps.

**MIC-Data**

**Cattle:**

<table>
<thead>
<tr>
<th>Species</th>
<th>Number of strains</th>
<th>MIC$_{50}$ (µg/mL)</th>
<th>MIC$_{90}$ (µg/mL)</th>
<th>Resistance (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Mannheimia haemolytica</em></td>
<td>82</td>
<td>0.03</td>
<td>0.06</td>
<td>0.0</td>
</tr>
<tr>
<td><em>Pasteurella multocida</em></td>
<td>105</td>
<td>0.008</td>
<td>0.03</td>
<td>1.0</td>
</tr>
<tr>
<td><em>Histophilus somni</em></td>
<td>41</td>
<td>0.03</td>
<td>0.03</td>
<td>0.0</td>
</tr>
<tr>
<td><em>Escherichia coli</em> (mastitis)</td>
<td>163</td>
<td>0.03</td>
<td>0.06</td>
<td>n.a.</td>
</tr>
<tr>
<td><em>Mycoplasma bovis</em></td>
<td>99</td>
<td>0.03</td>
<td>0.06</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

N.A.: not applicable

<table>
<thead>
<tr>
<th>Species</th>
<th>Number of strains</th>
<th>MIC$_{50}$ (µg/mL)</th>
<th>MIC$_{90}$ (µg/mL)</th>
<th>Resistance (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Actinobacillus pleuropneumoniae</em></td>
<td>129</td>
<td>0.03</td>
<td>0.06</td>
<td>0.8</td>
</tr>
<tr>
<td><em>Pasteurella multocida</em></td>
<td>135</td>
<td>0.015</td>
<td>0.03</td>
<td>0.0</td>
</tr>
<tr>
<td><em>Haemophilus parasuis</em></td>
<td>77</td>
<td>0.015</td>
<td>0.03</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

N.A.: not applicable

Enrofloxacin reference breakpoints are available for *Mannheimia haemolytica*, *Pasteurella multocida* and *Histophilus somni* isolated from cattle (≥ 2 µg/ml, CLSI document M31-A3) and for Pasteurella
multocida and Actinobacillus pleuropneumoniae isolated from pigs (≥ 1 µg/ml, CLSI document M31-A4).

The bacteria were isolated from diseased pigs and cattle in several European countries between 2001-10.

5.2 Pharmacokinetic particulars
Following subcutaneous administration of the product in cattle or intramuscular administration in pigs, the active ingredient, enrofloxacin, is absorbed very rapidly and almost completely (high bioavailability).

Cattle:

After subcutaneous administration at a dose rate of 7.5 mg enrofloxacin per kg body weight to non-lactating cattle peak plasma concentrations of 0.82 mg/L are reached within 5 hours. The overall drug exposure in plasma is 9.1 mg*hr/L. Enrofloxacin is eliminated from the body at a half-life of 6.4 hr. Approximately 50% of enrofloxacin is metabolized to the active substance ciprofloxacin. Ciprofloxacin is eliminated from the body at a half-life of 6.8 hr.

After intravenous injection at a dose rate of 5.0 mg enrofloxacin per kg body weight to lactating cows, peak plasma concentrations of approx. 23 mg/L are reached immediately. The overall drug exposure in plasma is 4.4 mg*hr/L. Enrofloxacin is eliminated from the body at a half-life of 0.9 hr. Approximately 50% of parent compound are metabolized to ciprofloxacin with peak plasma concentrations of 1.2 mg/L reached at 0.2 hr. Elimination half-life is at a mean of 2.1 hr.

In milk mainly the metabolite ciprofloxacin accounts for antibacterial activity (approx. 90%). Ciprofloxacin reaches peak milk concentrations of 4 mg/L within 2 hr after intravenous dosing. Total exposure in milk over 24 hours is approx. 21 mg*hr/L. Ciprofloxacin is eliminated from milk at a half-life of 2.4 hr. Peak concentrations of 1.2 mg enrofloxacin per liter are reached in milk within 0.5 hours with an total enrofloxacin exposure in milk of approx. 2.2 mg*hr/L. Enrofloxacin is eliminated from milk at 0.9 hr.

Pig:

After intramuscular administration of 7.5 mg/kg body weight to pigs a mean peak serum concentration of 1.46 mg/L was achieved within 4 hours. The overall drug exposure over 24 hours was 20.9 mg*hr/L. The drug was eliminated from the central compartment at a terminal half-life of 13.1 hr. With peak concentrations less than 0.06 mg/L mean serum concentrations of ciprofloxacin were very low.

Enrofloxacin has a high volume of distribution. The concentrations in the tissues and organs mostly significantly exceed serum levels. Organs in which high concentrations can be expected include the lungs, liver, kidneys, gut and muscle tissue. Enrofloxacin is eliminated renally.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Arginine
n-Butanol
Benzyl alcohol (E 1519)
Water for injection

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 in the unopened container: 3 years
Shelf life after first opening of the container: 28 days
The date of withdrawal of the first dose must be written on the label of the bottle.

6.4 Special precautions for storage

Protect from frost.

6.5 Nature and composition of immediate packaging

100 ml brown glass (Type 1) bottle with chlorobutyl rubber stopper secured by an aluminium crimp cap.

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 products should be disposed of in accordance with local requirements.

7. MARKETING AUTHORISATION HOLDER

{Name and address}
<{tel}>
<{fax}>
<{e-mail}>

8. MARKETING AUTHORISATION NUMBER(S)

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

<{DD/MM/YYYY}> <{DD month YYYY}>…

10 DATE OF REVISION OF THE TEXT

{MM/YYYY} or <month YYYY>

PROHIBITION OF SALE, SUPPLY AND/OR USE

Prescription- and pharmacy-only medicine, repeat dispensing prohibited.
ANNEX III

LABELLING AND PACKAGE LEAFLET
(Based on the current SPC of the reference product
Baytril RSI 100 mg/ml Injektionslösung für Rinder und Schweine)
A. LABELLING
1. **NAME OF THE VETERINARY MEDICINAL PRODUCT**

Baytril Direct 100 mg/ml Injektionslösung für Rinder und Schweine [AT]
Baytril Inject – Soluzione iniettabile 100mg/ml per bovini e suini [IT]
Baytril XM 100 mg/mL Solution injectable pour bovins et porcs [FR]
Baytril Inject 100 mg/ml Injektionslösung für Rinder und Schweine [DE]
Baytril Max 100 mg/ml Solution for Injection for Cattle and Pigs [IE, UK]

Enrofloxacin

2. **STATEMENT OF ACTIVE AND OTHER SUBSTANCES**

1 ml contains:

**Active substance:**
Enrofloxacin 100 mg

**Excipients:**
n-Butanol 30 mg
Benzyl alcohol (E 1519) 20 mg

3. **PHARMACEUTICAL FORM**

Solution for injection

4. **PACKAGE SIZE**

100 ml

5. **TARGET SPECIES**

Cattle, Pig

6. **INDICATION(S)**

Cattle:
For the treatment of respiratory tract infections caused by enrofloxacin-sensitive *Histophilus somni, Mannheimia haemolytica, Pasteurella multocida* and *Mycoplasma* spp.
For the treatment of Mastitis caused by enrofloxacin-sensitive *E. coli*.

Pig:
For the treatment of bacterial bronchopneumonia caused by enrofloxacin-sensitive *Actinobacillus pleuropneumoniae, Pasteurella multocida* and complicated by *Haemophilus parasuis* as secondary pathogen in pigs.
7. METHOD AND ROUTE(S) OF ADMINISTRATION

Please read the package leaflet before use.

8. WITHDRAWAL PERIOD

Cattle:
Meat and offal:
s.c.: 14 days
i.v.: 7 days

Milk:
s.c.: 120 hours
i.v.: 72 hours

Pig:
Meat and offal: i.m. 12 days

9. SPECIAL WARNING(S), IF NECESSARY

People with known hypersensitivity to (fluoro)quinolones should avoid contact with the veterinary medicinal product.
Direct contact with the skin should be avoided due to sensitisation, contact dermatitis and possible hypersensitivity reactions.
Wash any splashes from skin or eyes immediately with water. Do not eat, drink or smoke while handling the product.
Take care to avoid accidental self-injection. In case of accidental self-injection, seek medical advice immediately and show the package leaflet or label to the physician.

10. EXPIRY DATE

EXP: month/year
Shelf-life after first opening the immediate packaging: 28 days.
The date of first withdrawal should be recorded on the label of the glass bottle.

11. SPECIAL STORAGE CONDITIONS

Protect from frost.

12. SPECIAL PRECAUTIONS FOR THE DISPOSAL OF UNUSED PRODUCTS OR WASTE MATERIALS, IF ANY

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

13. THE WORDS “FOR ANIMAL TREATMENT ONLY” AND CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE, if applicable
For animal treatment only - to be supplied only on veterinary prescription.

14. THE WORDS “KEEP OUT OF THE REACH AND SIGHT OF CHILDREN”

Keep out of the reach and sight of children.

15. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER

{Name and address}
<{tel}>
<{fax}>
<{e-mail}>

16. MARKETING AUTHORISATION NUMBER(S)

17. MANUFACTURER’S BATCH NUMBER

Lot {number}
MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS

Brown glass bottle (Type 1)

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Baytril Direct 100 mg/ml Injektionslösung für Rinder und Schweine [AT]
Baytril Inject – Soluzione iniettabile 100mg/ml per bovini e suini [IT]
Baytril XM 100 mg/mL Solution injectable pour bovins et porcs [FR]
Baytril Inject 100 mg/ml Injektionslösung für Rinder und Schweine [DE]
Baytril Max 100 mg/ml Solution for Injection for Cattle and Pigs [IE, UK]

Enrofloxacin

2. QUANTITY OF THE ACTIVE SUBSTANCE(S)

1 ml contains:

Active substance: Enrofloxacin 100 mg

Excipients:
n-Butanol 30 mg
Benzyl alcohol (E 1519) 20 mg

3. PHARMACEUTICAL FORM

Solution for injection

4. PACKAGE SIZE

100 ml

5. TARGET SPECIES

Cattle, Pig

6. INDICATION(S)

Cattle:
For the treatment of respiratory tract infections caused by enrofloxacin-sensitive *Histophilus somni*, *Mannheimia haemolytica*, *Pasteurella multocida* and *Mycoplasma* spp.
For the treatment of Mastitis caused by enrofloxacin-sensitive *E. coli*.

Pig:
For the treatment of bacterial bronchopneumonia caused by enrofloxacin-sensitive *Actinobacillus pleuropneumoniae*, *Pasteurella multocida* and complicated by *Haemophilus parasuis* as secondary pathogen in pigs.
7. METHOD AND ROUTE(S) OF ADMINISTRATION

Please read the package leaflet before use.

8. WITHDRAWAL PERIOD

Cattle:
Meat and offal:
  s.c.: 14 days
  i.v.:  7 days

Milk:
  s.c.: 120 hours
  i.v.:  72 hours

Pig:
Meat and offal: i.m. 12 days

9. SPECIAL WARNING(S), IF NECESSARY

People with known hypersensitivity to (fluoro)quinolones should avoid contact with the veterinary medicinal product. Direct contact with the skin should be avoided due to sensitisation, contact dermatitis and possible hypersensitivity reactions. Wash any splashes from skin or eyes immediately with water. Do not eat, drink or smoke while handling the product. Take care to avoid accidental self-injection. In case of accidental self-injection, seek medical advice immediately and show the package leaflet or label to the physician.

10. EXPIRY DATE

EXP: month/year
Shelf-life after first opening the immediate packaging: 28 days.
The date of first withdrawal should be recorded on the label of the glass bottle.

11. SPECIAL STORAGE CONDITIONS

Protect from frost.

12. SPECIAL PRECAUTIONS FOR THE DISPOSAL OF UNUSED PRODUCTS OR WASTE MATERIALS, IF ANY

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

13. THE WORDS “FOR ANIMAL TREATMENT ONLY” AND CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE, if applicable
For animal treatment only - to be supplied only on veterinary prescription.

14. **THE WORDS “KEEP OUT OF THE REACH AND SIGHT OF CHILDREN”**

Keep out of the reach and sight of children.

15. **NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER**

{Name and address}
<br><{tel}>
<br><{fax}>
<br><{e-mail}>

16. **MARKETING AUTHORISATION NUMBER(S)**

17. **MANUFACTURER’S BATCH NUMBER**

Lot {number}
B. PACKAGE LEAFLET
1. **NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER AND OF THE MANUFACTURING AUTHORISATION HOLDER RESPONSIBLE FOR BATCH RELEASE, IF DIFFERENT**

Marketing authorisation holder:
National Bayer Animal Health subsidiary

Manufacturer for the batch release:
KVP Pharma + Veterinär Produkte GmbH
Projensdorfer Str. 324
D-24106 Kiel

2. **NAME OF THE VETERINARY MEDICINAL PRODUCT**

Baytril Direct 100 mg/ml Injektionslösung für Rinder und Schweine [AT]
Baytril Inject – Soluzione iniettabile 100mg/ml per bovini e suini [IT]
Baytril XM 100 mg/mL Solution injectable pour bovins et porcs [FR]
Baytril 1nject 100 mg/ml Injektionslösung für Rinder und Schweine [DE]
Baytril Max 100 mg/ml Solution for Injection for Cattle and Pigs [IE, UK]

3. **STATEMENT OF THE ACTIVE SUBSTANCE(S) AND OTHER INGREDIENT(S)**

1 ml contains:

**Active substance:**
Enrofloxacin 100 mg

**Excipients:**
n-Butanol 30 mg
Benzyl alcohol (E 1519) 20 mg

4. **INDICATION(S)**

**Cattle:**
For the treatment of respiratory tract infections caused by enrofloxacin-sensitive *Histophilus somni*, *Mannheimia haemolytica*, *Pasteurella multocida* and *Mycoplasma* spp.
For the treatment of Mastitis caused by enrofloxacin-sensitive *E. coli*.

**Pig:**
For the treatment of bacterial bronchopneumonia caused by enrofloxacin-sensitive *Actinobacillus pleuropneumoniae*, *Pasteurella multocida* and complicated by *Haemophilus parasuis* as secondary pathogen in pigs.

5. **CONTRAINDICATIONS**

Do not use in the presence of documented hypersensitivity to the pharmacologically active ingredient or to any of the other ingredients. Do not use in animals with central nervous system-associated seizure disorders. Do not use in the presence of existing disorders of cartilage development or
musculoskeletal damage around functionally significant or weight-bearing joints. Do not use for prophylaxis.

6. ADVERSE REACTIONS

In rare cases, transitory inflammatory reactions (swelling, redness) can occur at the injection site. These regress within a few days without further therapeutic measures. In rare cases, intravenous treatment can cause shock reactions in cattle, probably as a result of circulatory disturbances. Gastrointestinal disturbances may occur in isolated cases during treatment of calves. If you notice any serious effects or other effects not mentioned in this leaflet, please inform your veterinary surgeon.

7. TARGET SPECIES

Cattle, Pig

8. DOSAGE FOR EACH SPECIES, ROUTE(S) AND METHOD OF ADMINISTRATION

Cattle:
The dosage for respiratory disease is 7.5 mg enrofloxacin per kg body weight (BW) for a single treatment by subcutaneous administration (s.c.).

This is equivalent to

| 7.5 ml of the product per 100 kg BW and day |
---|

Do not administer more than 15 ml (cattle) or 7.5 ml (calf) per injection site (s.c.). In case of serious or chronic respiratory disease a second injection may be required after 48 hours.

The dosage for the treatment of colimastitis is 5 mg enrofloxacin per kg body weight (BW) by intravenous administration (i.v.).

This is equivalent to

| 5 ml of the product per 100 kg BW and day |
---|

The treatment of colimastitis should be exclusively by intravenous application on 2 to 3 consecutive days.

Pig:
The dosage for respiratory tract infections is 7.5 mg enrofloxacin per kg body weight for a single administration.

This is equivalent to

| 0.75 ml of the product per 10 kg BW and day |
---|

Method of administration:
Cattle:
For subcutaneous injection (respiratory disease) or for intravenous injection (colimastitis)
Pig:
For intramuscular injection into the neck muscles behind the ear.

To ensure administration of the correct dosage, body weight should be determined as accurately as possible to avoid underdosing. The stopper may be safely punctured up to 20 times.

9. ADVICE ON CORRECT ADMINISTRATION

None

10. WITHDRAWAL PERIOD

Cattle:
Meat and offal:
  s.c.:  14 days
  i.v.:  7 days

Milk:
  s.c.:  120 hours
  i.v.:  72 hours

Pig: Meat and offal:  12 days

11. SPECIAL STORAGE PRECAUTIONS

Keep out of the reach and sight of children.
Protect from frost.
Do not use after the expiry date stated on the bottle: (Expiry date: )

Shelf-life after first opening the container: 28 days.
The date of first withdrawal should be recorded on the label of the glass bottle.

12. SPECIAL WARNING(S)

Do not use in case of resistance against other fluoroquinolone due to the potential for cross-resistance.

Special precautions for use in animals

For repeated injection or for injection volumes exceeding 15 ml (cattle) or 7.5 ml (pigs, calves) in divided doses, a new site must be chosen for each injection.
Official and local antimicrobial policies should be taken into account when the product is used.
Fluoroquinolones should be reserved for the treatment of clinical conditions which have responded poorly, or are expected to respond poorly, to other classes of antimicrobials.
Whenever possible, fluoroquinolones should only be used based on susceptibility testing.
Use of the product deviating from the instructions given in the SPC may increase the prevalence of bacteria resistant to the fluoroquinolones and may decrease the effectiveness of treatment with other quinolones due to the potential for cross resistance.
Enrofloxacin is eliminated renally. As with all fluoroquinolones, delayed excretion can therefore be expected in the presence of existing renal damage.

Special precautions to be taken by the person administering the veterinary medicinal product to animals
People with known hypersensitivity to (fluoro)quinolones should avoid contact with the veterinary medicinal product. Direct contact with the skin should be avoided due to sensitisation, contact dermatitis and possible hypersensitivity reactions. Wash any splashes from skin or eyes immediately with water. Do not eat, drink or smoke while handling the product. Avoid accidental self-injection. In case of accidental self-injection, seek medical advice immediately and show the package leaflet or label to the physician.

May be used during pregnancy and lactation.

Antagonist effects due to concurrent administration of macrolides and tetracyclines may occur. Enrofloxacin may interfere with the metabolism of theophylline, decreasing theophylline clearance resulting in increased plasma levels of theophylline.

In cattle a dose of 25 mg/kg bodyweight administered by the subcutaneous route for 15 consecutive days is tolerated without any clinical symptoms. Higher doses in cattle and doses of around 25 mg/kg and above in pig may cause lethargy, lameness, ataxia, slight salivation and muscle tremors.

Do not exceed the recommended dose. In accidental overdose there is no antidote and treatment should be symptomatic.

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

13. SPECIAL PRECAUTIONS FOR THE DISPOSAL OF UNUSED PRODUCT OR WASTE MATERIALS, IF ANY

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

14. DATE ON WHICH THE PACKAGE LEAFLET WAS LAST APPROVED

15. OTHER INFORMATION

Package sizes: 100 ml

For any information about this veterinary medicinal product, please contact the local representative of the marketing authorisation holder.