[Version 9.1,11/2024]

ANNEX I

SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Respiflor 100 mg/ml solution for use in drinking water for pigs

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains:

Active substance:
Florfenicol ..... 100 mg

Qualitative composition of excipients and other constituents
Macrogol 300

Clear, colourless to yellow solution.

3. CLINICAL INFORMATION

3.1 Target species

Pigs

3.2 Indications for usefor each target species

Treatment and metaphylaxis at the group level where clinical signs are present of swine respiratory disease associated with *Actinobacillus pleuropneumoniae* and *Pasteurella multocida* susceptible to florfenicol. The presence of the disease should be established in the herd before initiating metaphylactic treatment.

3.3 Contraindications

Do not use in boars intended for breeding purposes.
Do not use in case of hypersensitivity to the active substance or to any of the excipients.

3.4 Special warnings

The treated pigs should be placed under special observation. On each of the five days of treatment, unmedicated drinking water should not be given until the full daily amount of medicated drinking water has been ingested by pigs.
If there are no signs of improvement after three days of treatment, the diagnosis should be reviewed and, if necessary, the treatment changed.

3.5 Special precautions for use

Special precautions for safe use in the target species:

The veterinary medicinal product should be used in conjunction with susceptibility testing.
Use of the product deviating from the instructions given in the SPC may increase the prevalence of bacteria resistant to the florfenicol.
Official and local antimicrobial policies should be taken into account when the product is used.
Treatment should not exceed 5 days.

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

This veterinary medicinal product may cause irritation of the skin and eyes.
Florfenicol may cause adverse effects on male reproductive systems, such as shrinking of the testes.
Contact of the neat product, or the medicated drinking water, with skin and eyes should be avoided.
Personal protective equipment consisting of protective gloves, coverall and safety glasses should be worn when handling and mixing the veterinary medicinal product.
Do not smoke, eat or drink when handling the product or mixing the medicated drinking water.
In case of accidental spillage into eyes, wash them immediately with water. In case of contact with skin, wash the affected area immediately and remove any contaminated clothing.
This product may cause hypersensitivity (allergic) reactions in some people.
People with known hypersensitivity to florfenicol or propylene glycol should avoid contact with the veterinary medicinal product.
If you develop symptoms following exposure, such as skin rash, seek medical advice and show the package leaflet or the label to the physician.

Special precautions for the protection of the environment:

This product should not be allowed to enter surface waters as it has harmful effects on aquatic organisms.

3.6 Adverse events

Pigs:

Very common (>1 animal/10 animals treated):	Diarrhoea[2] Erythema[1, 2] Oedema[1, 2]
Undetermined frequency (cannot be estimated from the available data):	Reduced water intake Constipation[3] Rectal prolapse[4]

[1] Peri-anal and rectal.
[2] These effects are transient and may affect approximately 40% of the animals.
[3] With dark brown faeces
[4] It resolves without treatment

Reporting adverse events is important. It allows continuous safety monitoring of a veterinary medicinal product. Reports should be sent, preferably via a veterinarian, to either the marketing authorisation holder or the national competent authority via the national reporting system. See the package leaflet for respective contact details.

3.7 Use during pregnancy, lactation or lay

Pregnancy and lactation:
The safety of the veterinary medicinal product in sows has not been established during pregnancy and lactation. Laboratory studies have not produced any evidence of potential embryo- or foetotoxic effect of florfenicol. Use only according to the benefit-risk assessment by the responsible veterinarian.

Fertility:
Do not use in boars intended intending for breeding (see section 3.3).

3.8 Interaction with other medicinal products and other forms of interaction

None known.

3.9 Administration routes and dosage

In drinking water use.
10 mg florfenicol/kg b.w./day for 5 consecutive days.
Based on the recommended dose, and the number and weight of the animals to be treated, the exact daily amount of the veterinary product should be calculated according to the following formula:

$$\frac{\text{X ml veterinary product/kg b.w./day} \times \text{Mean body weight (kg) of animals to be treated}}{\text{Mean daily water consumption (litre) per animal}} = \text{X ml veterinary product per litre drinking water}$$

The appropriate quantity of medicated water should be prepared based on the daily water consumption. To ensure a correct dosage body weight should be determined as accurately as possible. In order to avoid under- and over-dosing, treated animals should be divided into groups of similar bodyweight and the dose should be calculated for each group individually.

For Bulk Tank:
To treat pigs drinking 10% of their bodyweight, at the dose of 10 mg/kg: add the florfenicol solution to the drinking water in the bulk tank. Use one bottle (1L) of florfenicol solution for every 1000 L of water or use one barrel (5L) of florfenicol solution for every 5000 L of water and mix thoroughly.

For Proportioner:
To treat 5,000 kg of pigs, drinking 10% of their bodyweight, at the dose rate of 10 mg/kg:
1. Empty the content of one bottle/barrel of florfenicol solution in the proportioner and dilute with drinking water as follows:

Bottle/Barrel	Amount of drinking water
1L	100 L
5L	500 L

2. Mix thoroughly.
3. Set the proportioner on 10%
4. Turn on the proportioner.

Warnings: Solutions with concentrations higher than 1.2 g of florfenicol per litre may precipitate. Do not use the product with chlorinated water.

The uptake of medicated water depends on several factors including the clinical state of the animals and local conditions such as ambient temperature and humidity. In order to obtain the correct dosage water uptake has to be monitored and the concentration of florfenicol has to be adjusted accordingly. If this is not possible, animals should be treated parenterally.

3.10 Symptoms of overdose (and where applicable, emergency procedures and antidotes)

After administration at 3 times the recommended dose a decrease in weight gain, food and water consumption, peri-anal erythema and oedema and modification of some haematological and biochemical parameters indicative of dehydration may be observed.

3.11 Special restrictions for use and special conditions for use, including restrictions on the use of antimicrobial and antiparasitic veterinary medicinal products in order to limit the risk of development of resistance

3.12 Withdrawal periods

Meat and offal: 20 days

4. PHARMACOLOGICAL PROPERTIES

4.1 ATCvet code: QJ01BA90

4.2 Pharmacodynamics

Florfenicol is a broad-spectrum synthetic antibiotic in the phenicol group that is active against most Gram-positive and Gram-negative bacteria isolated from domestic animals. Florfenicol acts by inhibition of protein synthesis at the ribosomal level and is bacteriostatic. However, bactericidal activity has been demonstrated *in-vitro* against *Actinobacillus pleuropneumoniae* and *Pasteurella multocida* when florfenicol is present at concentrations above the MIC for up to 12 hours.
In-vitro testing has shown that florfenicol is active against the bacterial pathogens most commonly isolated in respiratory diseases in pigs, including *Actinobacillus pleuropneumoniae* and *Pasteurella multocida.*
The MIC90 values of florfenicol against *Actinobacillus pleuropneumoniae* and *Pasteurella multocida* strains isolated in Czech Republic (2015-2016) and United States and Canada (2011-2015), were determined as 0.5 µg/ml, respectively. For *A. pleuropneumoniae* and *P. multocida*, the CLSI breakpoint of resistance for swine respiratory disease is 8 µg/ml (2013).
Acquired resistance to florfenicol is associated with several genes, including FloR which encodes an efflux pump.

4.3 Pharmacokinetics

After administration to pigs by gavage at 15 mg/kg under experimental conditions, absorption of florfenicol was variable but peak serum concentrations of approximately 5 µg/ml were reached approximately 2 hours after dosing. The terminal half-life was between 2 and 3 hours. When pigs were given free access, for 5 days, to water medicated with the veterinary medicinal product at a concentration of 100 mg florfenicol per litre of water, serum concentrations of florfenicol exceeded 1 µg/ml for the entire 5 day treatment period except for a couple of short excursions below 1 µg/ml.
After absorption and distribution, florfenicol is extensively metabolised by pigs and rapidly eliminated, primarily in urine.
After parenteral dosing of florfenicol to pigs, it has been shown that lung concentrations are similar to serum concentrations.

5. PHARMACEUTICAL PARTICULARS

5.1 Major incompatibilities

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

5.2 Shelf life

Shelf life of the veterinary medicinal product as packaged for sale: 18 months
Shelf-life after first opening the immediate packaging: 3 months
Shelf life after dilution according to directions: 24 hours

5.3. Special precautions for storage

Do not store above 25°C.

5.4 Nature and composition of immediate packaging

White high-density polyethylene (HDPE) bottle and barrel with induction sealed HDPE screw cap.

Pack sizes:
Bottles of 1L and barrels of 5L.
Not all pack sizes may be marketed.

5.5 Special precautions for the disposal of unused veterinary medicinal product or waste materials derived from the use of such products

Medicines should not be disposed of via wastewater or household waste.
The veterinary medicinal product should not enter water courses as florfenicol may be dangerous for fish and other aquatic organisms.
Dangerous to aquatic primary producers (cyanobacteria). Do not contaminate surface waters or ditches with the product or used container.
Use take-back schemes for the disposal of any unused veterinary medicinal product or waste materials derived thereof in accordance with local requirements and with any national collection systems applicable to the veterinary medicinal product concerned.

6. NAME OF THE MARKETING AUTHORISATION HOLDER

MEVET S.A.U.

7. MARKETING AUTHORISATION NUMBER(S)

8. DATE OF FIRST AUTHORISATION

DD/MM/YYYY

9. DATE OF THE LAST REVISION OF THE SUMMARY OF THE PRODUCT CHARACTERISTICS

MM/YYYY

10. CLASSIFICATION OF VETERINARY MEDICINAL PRODUCTS

Veterinary medicinal product subject to prescription.

Detailed information on this veterinary medicinal product is available in the Union Product Database (https://medicines.health.europa.eu/veterinary).