1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Nuflor 40 mg/g Premix for Medicated Feeding Stuff for Pigs

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each gram contains:

Active substance:
Florfenicol 40 mg

Excipients:

Qualitative composition of excipients and other constituents	**Quantitative composition if that information is essential for proper administration of the veterinary medicinal product**
Propylene glycol (E1520)	10 mg
Ground limestone[b]	/ q.s. to 1 g

[b]Amount of limestone will be adjusted based on amount of florfenicol charged

White to off-white, free flowing powder with red and/or black grains dispersed throughout.

3. CLINICAL INFORMATION

3.1 Target species

Pigs (for fattening).

3.2 Indications for use for each target species

For the treatment and metaphylaxis of swine respiratory disease caused by *Pasteurella multocida* susceptible to florfenicol in infected herds. The presence of the disease in the herd must be established before the veterinary medicinal product is used.

3.3 Contraindications

Do not use in boars intended for breeding.

Do not use in cases of hypersensitivity to the active substance or to any of the excipients.

3.4 Special warnings

Animals showing a decreased appetite and/or a poor general condition should be treated by the parenteral route.

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 and take into account official and local policy relating to the use of antimicrobials.

This veterinary medicinal product is intended for the manufacturing of solid medicated feed and cannot be used as it is; the incorporation rate of the veterinary medicinal product in feed cannot be lower than 5 kg/ton.
This veterinary medicinal product contains ground limestone, which can lead to a decrease in food consumption and to a phosphorus calcium imbalance in feed intake. Care should therefore be taken to consider the calcium content of the final medicated feed.
Treatment should not exceed 5 days.
In a field clinical study, within a week after the administration of the last dose, the incidence of pigs presenting either mild depression and/or mild dyspnoea and/or pyrexia (40 °C) was approx. 20 % in the initially severely ill animals.

Special precautions to be taken by the person administering the veterinary medicinal product to animals:
Skin sensitisation may occur.
Avoid skin contact.
People with known hypersensitivity to florfenicol or any of the excipients should avoid contact with the veterinary medicinal product. Handle this veterinary medicinal product with care to avoid exposure during incorporation of the veterinary medicinal product into feed and administration of feed to animals, taking all recommended precautions.
Wear either a disposable half-mask respirator conforming to European standard EN 149 or a non-disposable respirator to European Standard EN 140 with a filter to EN 143, chemically resistant gloves, protective coveralls and goggles while incorporating the veterinary medicinal product into feed.
Wear gloves and do not smoke, eat, or drink when handling the veterinary medicinal product or medicated feed.
Wash hands thoroughly with soap and water after use of the veterinary medicinal product or medicated feed.
Rinse thoroughly with water in case of exposure.
If you develop symptoms following exposure such as skin rash, you should seek medical advice and show the package leaflet or the label to the physician.
Manure from treated swine must be stored for a minimum of one month before being spread and incorporated in fields.

Special precautions for the protection of the environment:
The manure from treated swine must be stored for a minimum of one month before being spread and incorporated in fields.

3.6 Adverse events

Pigs (for fattening):

Common (1 to 10 animals / 100 animals treated):	Diarrhoea[1], Perianal inflammation[1], Rectal prolapse[1].
Undetermined frequency (cannot be estimated from available data)	Hypercalcaemia[1].

[1]These effects are transient, resolving on cessation of 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 its local representative 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 has not been established during pregnancy and lactation. Therefore, the use is not recommended during pregnancy and lactation.

3.8 Interaction with other medicinal products and other forms of interaction

None known.

3.9 Administration routes and dosage

Oral use.

Dosage:
10 mg of florfenicol per kg body weight (equivalent to 250 mg veterinary medicinal product) per day administered for 5 consecutive days.

Administration:
For a daily feed intake of 50 g/kg body weight, this dosage corresponds to a rate of incorporation of 5 kg of the veterinary medicinal product per ton of feed, i.e. 200 ppm of florfenicol.
The rate of incorporation of the veterinary medicinal product in the feed may be increased in order to achieve the required dosage on an mg/kg body weight basis and to take into account the actual feed intake. Thus, the inclusion level may need adjusting as follows to give the correct dose:

$$\frac{\text{250 mg veterinary medicinal product / kg body weight /day} \times \text{Average body weight (kg) of animals to be treated}}{\text{Average daily feed intake (kg/animal)}} = \text{mg veterinary medicinal product per kg of feed}$$

The maximum rate of incorporation is 12.5 kg/ton (500 ppm of florfenicol); higher rates of inclusion may lead to poor palatability and decreased food consumption.
Under no circumstances should the incorporation rate of the veterinary medicinal product be below 5 kg/ton of feed.

In all cases the recommended dose of 10 mg of florfenicol per kg of body weight per day, for 5 consecutive days has to be respected.

To ensure a correct dosage body weight should be determined as accurately as possible to avoid underdosing. The required dose should be measured by suitably calibrated weighing equipment.

A horizontal ribbon mixer should be used to incorporate the veterinary medicinal product into the feeding stuff. It is recommended that the veterinary medicinal product is added to the mixer containing the feeding stuff ingredients and mixed thoroughly to produce a homogeneous medicated feeding stuff. Medicated feed may also then be pelleted. Pelleting conditions include a pre-conditioning step with steam and then the mixture is passed through a pelleter or extruder under normal conditions.

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

In the event of overdose, a reduction in food and water consumption, together with a decrease in body weight may be observed. There may be an increase in refused feed and an increase in serum calcium.

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

Not applicable.

3.12 Withdrawal periods

Meat and offal: 14 days.

4. PHARMACOLOGICAL INFORMATION

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 *Pasteurella multocida* when florfenicol is present at concentrations above the MIC for 4 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 *Pasteurella multocida*.
A total of 193 *Pasteurella multocida* isolates from the respiratory tract of swine were collected between 2002 and 2003 in France, Spain, Greece, Germany, the United Kingdom and Belgium. The Minimal Inhibitory Concentration (MIC) of florfenicol against the target pathogen ranges from 0.25 to 1 µg/ml with a MIC_{90} of 0.5 µg/ml.
The only mechanisms of chloramphenicol resistance that are known to have significant clinical relevance are CAT (Chloramphenicol Acetyl Transferase)-mediated inactivation and efflux-pump resistance. Of these, only some of the efflux mediated resistance would also confer resistance to florfenicol and thus have the potential to be affected by florfenicol use in animals.

4.3 Pharmacokinetics

After administration to pigs by gavage at 10 mg/kg under experimental conditions, absorption of florfenicol was variable but peak serum concentrations of approximately 5 µg/ml were reached approximately 3 hours after dosing. The terminal half-life was between 3 and 4 hours. When pigs were given free access, for 5 days, to feed medicated with the veterinary medicinal product at the recommended dose of 10 mg/kg, serum florfenicol concentrations exceeded 1 µg/ml for more than 16 hours each day of treatment.
Florfenicol is well absorbed when administered orally and following distribution it is rapidly eliminated in the urine and faeces in a ratio of 3:1. A fraction is excreted unchanged, and the rest is metabolised into 5 major metabolites.
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: 3 years.
Shelf life after first opening the immediate packaging: 28 days.
Shelf life after incorporation into meal or pelleted feed: 3 months.

5.3 Special precautions for storage

This veterinary medicinal product does not require any special storage conditions.

5.4 Nature and composition of immediate packaging

LDPE lined, with multi walled paper bag containing 5kg.
LDPE lined, with multi walled paper bag containing 25kg.

Not all pack sizes may be marketed.

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

Medicines should not be disposed of via wastewater or household waste.

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

Intervet Ireland Limited

7. MARKETING AUTHORISATION NUMBER(S)

VPA10996/238/001

8. DATE OF FIRST AUTHORISATION

31/08/2007

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

19/06/2024

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).