SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Tilmovet 40 g/kg Premix for medicated feeding stuff for pigs and rabbits

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each kg contains:

Active substance:
40 g tilmicosin

Excipients:

Qualitative composition of excipients and other constituents
Corn cobs
Liquid paraffin
Macrogolglycerol ricinoleate
Phosphoric acid

Yellowish to reddish free-flowing granules.

3. CLINICAL INFORMATION

3.1 Target species

Pigs (weaned piglets and pigs for fattening) and rabbits

3.2 Indications for use for each target species

Pigs:
Treatment and metaphylaxis of respiratory disease caused by *Actinobacillus pleuropneumoniae, Mycoplasma hyopneumoniae, Pasteurella multocida* and other organisms sensitive to tilmicosin

Rabbits:
Treatment and metaphylaxis of respiratory disease caused by *Pasteurella multocida and Bordetella bronchiseptica,* susceptible to tilmicosin.

The presence of the disease in the group must be established before the veterinary medicinal product is used.

3.3 Contraindications

Tilmicosin is known to be toxic for horses. Do not allow horses or other equines access to feeds containing tilmicosin. Horses or other *Equidae*, must not be allowed access to feeds containing tilmicosin. Horses fed with tilmicosin medicated feeds may present signs of toxicity with lethargy, anorexia, reduction of feed consumption, loose stools, colic, distension of the abdomen and death.
Do not use in cases of hypersensitivity to the active substance or to any of the excipients.

3.4 Special warnings

With regard to the management of respiratory disease outbreaks, it should be noted that acutely ill animals are likely to be inappetant and therefore require parenteral treatment.

Repeated use of the veterinary medicinal product should be avoided by improving management practices and thorough cleansing and disinfection.

Cross-resistance has been shown between tilmicosin and other macrolides (like tylosin, erythromycin) or lincomycin. Use of the veterinary medicinal product should be carefully considered when susceptibility testing has shown resistance to other macrolides or lincosamides because its effectiveness may be reduced.

3.5 Special precautions for use

Special precautions for safe use in the target species:

Due to the likely variability (time, geographical) in the occurrence of the resistance of bacteria for tilmicosin, bacteriological sampling and susceptibility testing are recommended.

Use of the veterinary medicinal product should be based on identification and susceptibility testing of the target pathogen(s). If this is not possible, therapy should be based on epidemiological information and knowledge of susceptibility of the target pathogens at farm level, or at local/regional level.

Use of the veterinary medicinal product should be in accordance with official, national and regional antimicrobial policies.

Inappropriate use of the veterinary medicinal product may increase the prevalence of bacteria resistant to tilmicosin and may decrease the effectiveness of treatment with tilmicosin related substances.

An antibiotic with a lower risk of antimicrobial resistance selection (lower AMEG category) should be used for first line treatment where susceptibility testing suggests the likely efficacy of this approach.

Do not use for prophylaxis.

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

People with known hypersensitivity to tilmicosin should avoid contact with the veterinary medicinal product.
May cause sensitisation by skin contact. May cause skin and eye irritation. Avoid direct skin contact. Personal protective equipment consisting of overalls, safety glasses and impervious gloves should be worn when handling the veterinary medicinal product. Wash affected parts if skin contact occurs. If accidental eye contact occurs, immediately rinse thoroughly with water. In case of accidental ingestion, or if you develop symptoms following exposure such as skin rash, seek medical advice immediately and show the package leaflet or the label to the physician. Swelling of the face, lips or eyes or difficulty with breathing are more serious symptoms and require urgent medical attention.
If the operations involve the risk of exposure to dust, wear either a disposable filter and half mask respirator conforming to European Standard EN149 or a non-disposable respirator to European Standard EN140 fitted with a filter to EN143. This warning is particularly relevant to on-farm mixing, where the risk of exposure to dust is likely to be enhanced.

Special precautions for the protection of the environment:

Not applicable.

3.6 Adverse events

Pigs and rabbits:

Very rare (<1 animal / 10,000 animals treated, including isolated report(s)):	Reduced food intake, food refusal[1]

[1] this effect is transient

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:
Laboratory studies in rats have not produced any evidence of a teratogenic, foetotoxic/embryotoxic effect of tilmicosin, however, a maternotoxicity was observed at doses that were close to the therapeutic dosage. The veterinary medicinal product is safe in sows whatever the pregnancy stages.

Fertility:
The safety of the veterinary medicinal product has not been established in boars used for breeding purposes.

3.8 Interaction with other medicinal products and other forms of interaction

Do not use simultaneously with other macrolides and lincosamides.
Do not use simultaneously with bacteriostatic antimicrobial agents.
Tilmicosin may decrease the antibacterial activity of β-lactam antibiotics.

3.9 Administration routes and dosage

Oral use. To be administered orally through the medicated feed.

The intake of medicated feed depends on the clinical condition of the animals. In order to obtain the correct dosage the concentration of tilmicosin may need to be adjusted accordingly.
Use the following formula:

$$\frac{\text{Kg veterinary medicinal product}}{\text{tonne feed}} = \frac{\text{Dose rate (mg/kg bodyweight) x bodyweight (kg)}}{\text{Daily feed intake (kg) x premix strength (g/kg)}}$$

Pigs
Administer in the feed at a dose of 8 to 16 mg/kg body weight/day of tilmicosin (equivalent to 200 to 400 ppm in the feed) for a period of 15 to 21 days.

Indication	Dose of tilmicosin	Duration of treatment	Inclusion rate in feed
Treatment and metaphylaxis of respiratory disease	8-16 mg/kg bodyweight/day	15 to 21 days	5-10 kg veterinary medicinal product/tonne

Rabbits
Administer in the feed at 12 mg/kg body weight/day of tilmicosin (equivalent to 200 ppm in the feed) for 7 days.

Indication	Dose of tilmicosin	Duration of treatment	Inclusion rate in feed
Treatment and metaphylaxis of respiratory disease	12 mg/kg bodyweight/day	7 days	5 kg veterinary medicinal product /tonne

To ensure thorough dispersion of the veterinary medicinal product, it should first be mixed with a suitable quantity of feed before incorporation into the finished feed.
This veterinary medicinal product can be incorporated into pelleted feed, preconditioned for the minimum time-period at a temperature not exceeding 75°C.

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

No symptoms of overdose have been seen in pigs fed a ration containing levels of tilmicosin up to 80 mg/kg bodyweight (equivalent to 2000 ppm in the feed or ten times the recommended dose) for 15 days.

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

This veterinary medicinal product is intended to be used for the preparation of medicated feed.

3.12 Withdrawal periods

Pigs: meat and offal: 21 days
Rabbits: meat and offal: 4 days

4. PHARMACOLOGICAL INFORMATION

4.1 ATCvet code:

QJ01FA91

4.2 Pharmacodynamics

Tilmicosin is a mainly bactericidal semi-synthetic antibiotic of the macrolide group. It is believed to affect the bacterial protein synthesis *in vitro* and *in vivo*, without affecting the nucleic acid synthesis. It is mostly bacteriostatic. It has a bactericidal effect on *Pasteurella* spp.
Tilmicosin has a wide spectrum of activity against Gram-positive organisms is particularly active against *Pasteurella, Actinobacillus (Haemophilus)* and *Mycoplasma* organisms of bovine, porcine and avian origin. Tilmicosin has some activity against certain Gram-negative micro-organisms.
Cross resistance between tilmicosin and other macrolide antibiotics has been observed. Macrolides inhibit protein synthesis by reversibly binding to the 50S ribosomal subunit. Bacterial growth is inhibited by induction of the separation of peptidyl transfer RNA from the ribosome during the elongation phase.
Ribosomal methylase, encoded by the *erm* gene, can precipitate resistance to macrolides by alteration of the ribosomal binding site.
The gene that encodes for an efflux mechanism, *mef*, also brings about a moderate degree of resistance.
Resistance is also brought about by an efflux pump that actively rids the cells of the macrolide. This efflux pump is chromosomally mediated by genes referred to as *acrAB* genes. Resistance of Pseudomonas species and other Gram-negative bacteria, enterococci and staphylococci may be precipitated by chromosomally controlled alteration of permeability or uptake of the drug.

4.3 Pharmacokinetics

Pigs:
Absorption: When administered to pigs via the oral route at a dose of 400 mg tilmicosin/kg feed (equivalent to approximately 21.3 mg tilmicosin/kg bodyweight/day), tilmicosin moves rapidly out of the serum into areas of low pH. The highest concentration in the serum (0.23 ±0.08 µg/ml) was recorded on day 10 of medication, but concentrations above the limit of quantification (0.10 µg/ml) were not found in 3 out of 20 animals examined. Lung concentrations increased rapidly between days 2 and 4 but no significant changes were obtained following four days of dosing. The maximum concentration in lung tissue (2.59±1.01 µg/ml) was recorded on day 10 of medication.

When administered at a dose of 200 mg tilmicosin/kg feed (equivalent to approximately 11.0 mg/kg/day), plasma concentrations above the limit of quantification (0.10 µg/ml) were found in 3 out of 20 animals examined. Quantifiable levels of tilmicosin were found in lung tissue with the maximum concentration (1.43±1.13 µg/ml) being recorded on day 10 of medication.

Distribution: Following oral administration, tilmicosin is distributed throughout the body with especially high levels found in the lung and in lung tissue macrophages. It is also distributed in the liver and kidney tissues.

Rabbits:
Absorption: When administered orally to rabbits at a dose of 12 mg tilmicosin/kg b.w. as a single dose there is a quick absorption. Maximum concentrations were reached in 30 minutes, being the Cmax obtained of 0.35 µg/ml. Tilmicosin plasma concentrations decreased to 0.1 µg/ml within 2 hours and to 0.02 µg/ml after 8 hours. The elimination half-life was 22 hours.

Distribution: Following oral administration, tilmicosin is distributed throughout the body with especially high levels found in lungs. After 5 days of treatment with medicated feed at a dosage of 200 ppm of veterinary medicinal product, tilmicosin concentrations in lung tissues were of 192 ± 103 µg/g.

Applicable to both species:
Biotransformation: Several metabolites are formed, the predominant one being identified as T1. However the bulk of tilmicosin is excreted unchanged.

Elimination: Following oral administration, tilmicosin is excreted mainly via the bile into the faeces but a small proportion is excreted via the urine.

5. PHARMACEUTICAL PARTICULARS

5.1 Major incompatibilities

Do not mix into feed containing bentonite.
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: 3 months
Shelf-life after incorporation into meal or pelleted feed: 3 months.

5.3 Special precautions for storage

Do not store above 30°C.
Store in the original container.
Store in a dry place.

5.4 Nature and composition of immediate packaging

5 and 20 kg polyethylene in paper outer bag
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.

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

Huvepharma NV

7. MARKETING AUTHORISATION NUMBERS

Vm 30282/5024 (GB)
Vm 30282/3026 (NI)

8. DATE OF FIRST AUTHORISATION

30 October 2008

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

November 2024

10. CLASSIFICATION OF VETERINARY MEDICINAL PRODUCT

Veterinary medicinal product subject to prescription.

Find more product information by searching for the 'Product Information Database' on www.gov.uk.

Gavin Hall

Approved: 19 March 2025