VMT 200 g/kg
PREMIX
(FOR VETERINARY USE ONLY)

COMPOSITION
Tilmicosin ..... 200 g/kg

PRODUCT DESCRIPTION
The finished product is a white color powder.

TARGET SPECIES
Pigs (weaned piglets and fattening pigs) and rabbits

PHARMACODYNAMIC

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-positiveorganisms is particularily 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.

PHARMACOKINETIC

Pig: 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: Following oral administration, tilmicosin is distributed throughout the body with especially high levels found in lungs.

INDICATIONS

Pigs:
Prevention and treatment of respiratory disease caused by Actinobacillus pleuropneumoniae, Mycoplasma hyopneumoniae, Pasteurella multocida and other organisms sensitive to tilmicosin.

Rabbits:
Prevention and treatment of respiratory disease caused by Pasteurella multocida and Bordetella bronchiseptica, susceptible to tilmicosin.

WARNINGS AND PRECAUTIONS

1. Special warnings for each target species:
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.

2. Special precautions for use:
i. Special precautions for use in animals:

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

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

Cross-resistance between tilmicosin and other macrolide antibiotic has been observed. Use of the product should be based on susceptibility testing and take into account official, national and regional antimicrobial policies. Inappropriate use of the product may increase the prevalence of bacteria resistant to tilmicosin and may decrease the effectiveness of treatment with tilmicosin related substances.

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

The handling of the product in case of known hypersensitivity to macrolide antibiotics must be avoided.

May cause sensitization by skin contact. May cause skin and eye irritation. Avoid direct skin contact. Wear overalls, safety glasses and impervious gloves when mixing and handling the 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 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 or a non-disposable respirator fitted with a filter. This warning is particularly relevant to on-farm mixing, where the risk of exposure to dust is likely to be enhanced.

- Keep medicine out of reach of children.
- Jauhkan ubat dari kanak-kanak

CONTRAINDICATIONS

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 case of hypersensitivity to tilmicosin or to any of the excipients.

Do not use in animals hypersensitive to tilmicosin and when there is resistance to tilmicosin or cross resistance to other macrolides like tylosin, erythromycin or lincomycin.

ADMINISTRATION & DOSAGE

The uptake of medicated feed depends on the clinical condition of the animals. In order to obtain a correct dosage the concentration of tilmicosin has to be adjusted accordingly.

Use the following formula:

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

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
Prevention and treatment of respiratory disease	8-16 mg/kg bodyweight/ day	15 to 21 days	1-2 kg 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
Prevention and treatment of respiratory disease	12 mg/kg bodyweight/ day	7 days	1 kg product/tonne

To ensure thorough dispersion of the product, it should first be mixed with a suitable quantity of feed before incorporation into the finished feed.

INTERACTION WITH OTHER MEDICAMENTS

Do not use simultaneously with other macrolides and lincosamides.

Do not use simultaneously with bacteriostatic antimicrobial agents.

Tilmicosin may less the antibacterial activity of β-lactam antibiotics.

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 product is safe in sows whatever the pregnancy stages.

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

OVERDOSE AND TREATMENT

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.

SIDE EFFECT

In very rare cases(less than 1 animal in 10,000 animals), feed intake may decrease (including feed refusal) in animals receiving medicated feed. This effect is transient.

WITHDRAWAL TIME

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

SHELF LIFE: 36 months
SHELF LIFE after first opening & reconstitution: 24 hours

STORAGE

Store at temperature not exceeding 30°C. Strictly avoid light & heat exposure.

PACKAGING

The product is packed in aluminum foil, each sachet is 1 kg

DATE OF REVISION: 31 May 2018

Product Registration Holder & Manufactured By:

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