SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Aivlosin 625 mg/g granules for use in drinking water for chickens and turkeys

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Active substance :
Tylvalosin (as tylvalosin tartrate) 625 mg/g

For the full list of excipients see section 6.1

3. PHARMACEUTICAL FORM

Granules for use in drinking water.
White granules.

4. CLINICAL PARTICULARS

4.1 Target species

Chicken and turkeys.

4.2 Indications for use, specifying the target species

Chicken
Treatment and metaphylaxis of respiratory infections caused by *Mycoplasma gallisepticum* in chicken. The presence of the disease in the flock should be established before metaphylactic treatment.

As an aid in reducing the development of clinical signs and mortality from respiratory disease in flocks, where infection in ovum with *Mycoplasma gallisepticum* is likely because the disease is known to exist in the parent generation.

Turkeys
Treatment of respiratory disease associated with tylvalosin sensitive strains of *Ornithobacterium rhinotracheale* in turkeys.

4.3 Contraindications

None

4.4 Special warnings for each target species

In field studies investigating the effect of treatment and metaphylaxis on mycoplasmosis, all birds (approximately 3 weeks old) received the product when clinical signs were evident in 2–5% of the flock. At 14 days after initiation of treatment, 16.7–25.0% morbidity and 0.3–3.9% mortality were observed in the treated group in comparison to 50.0–53.3% morbidity and 0.3–4.5% mortality in an untreated group.

In further field studies, chicks from parent stock with evidence of *Mycoplasma gallisepticum* infection were administered Aivlosin for the first three days of life followed by a second course at 16–19 days of age (a period of management stress). By 34 days after the initiation of treatment, 17.5–20.0% morbidity and 1.5–2.3% mortality were observed in the treated groups in comparison to 50.0–53.3% morbidity and 2.5–4.8% mortality in the untreated groups.

The strategy for *Mycoplasma gallisepticum* infection should include efforts to eliminate the pathogen from the parent generation.

Infection with *Mycoplasma gallisepticum* is reduced but not eliminated at the recommended dose.
Medication should only be used for short-term amelioration of clinical signs in breeder flocks whilst awaiting confirmation of diagnosis of *Mycoplasma gallisepticum* infection.

4.5 Special precautions for use

Special precautions for use in animals

Good management and hygiene practices should be introduced to reduce the risk of re-infection.

It is sound clinical practice to base treatment on susceptibility testing of the bacteria isolated from the animal. If this is not possible, therapy should be based on local (regional, farm level) epidemiological information about susceptibility of target bacteria.
Use of the veterinary medicinal product deviating from the instructions may increase the risk of development and selection of resistant bacteria and decrease the effectiveness of treatment with other macrolides due to potential for cross-resistance.

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

Tylvalosin has been shown to cause hypersensitivity (allergic) reactions in laboratory animals; therefore, people with known hypersensitivity to tylvalosin should avoid contact with this product.

When mixing the veterinary medicinal product and handling the medicated water, direct contact with eyes, skin and mucous membranes should be avoided. Personal protective equipment consisting of impervious gloves and a half-mask respirator conforming to European Standard EN 149 or a nondisposable respirator conforming to European Standard EN 140 with a filter

conforming to European Standard EN 143 should be worn when mixing the product. Wash contaminated skin.

In case of accidental ingestion, seek medical advice immediately and show the package leaflet or the label to the physician.

Special precautions for the protection of the environment:
Not applicable.

Other precautions:
Not applicable.

4.6 Adverse reactions (frequency and seriousness)

Chicken and turkeys.

None known.

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 also section 16 of the package leaflet for contact details.

4.7 Use during pregnancy, lactation or lay

The product can be used in chickens laying eggs for human consumption and breeding birds producing eggs for hatching broiler stock or replacement layers.

The safety of the veterinary medicinal product has not been established during lay in turkeys.

4.8 Interaction with other medicinal products and other forms of interaction

None known.

4.9 Amount(s) to be administered and administration route

For use in drinking water.

Chickens
For treatment of respiratory disease associated with *Mycoplasma gallisepticum*:
The dose is 25 mg tylvalosin per kg bodyweight per day in drinking water for 3 consecutive days.

When used as an aid in reducing the development of clinical signs and mortality (where infection in ovum with *Mycoplasma gallisepticum* is likely):
The dose is 25 mg tylvalosin per kg bodyweight per day in drinking water for 3 consecutive days at 1 day old. This is followed by a second treatment with 25 mg tylvalosin per kg bodyweight per day in drinking water for 3

consecutive days at the period of risk, i.e. at times of management stress such as administration of vaccines (typically when birds are 2–3 weeks old).

Determine the combined bodyweight (in kg) of all the chickens to be treated. Select the correct number of sachets according to the amount of product required.

One sachet of 40 g is sufficient to treat a total of 1,000 kg of chicken (e.g. 20,000 birds with an average bodyweight of 50 g).

One sachet of 400 g is sufficient to treat a total of 10,000 kg of chicken (e.g. 20,000 birds with an average bodyweight of 500 g).

In order to achieve a correct dose, the preparation of a concentrated (stock) solution might be required (e.g. to treat a total of 500 kg total bird weight, only 50% of the prepared stock solution prepared from the 40 g sachet should be used).

The product should be added to a volume of water that the chicken will consume in one day. No other source of drinking water should be available during the medication period.

Turkeys
For treatment of respiratory disease associated with *Ornithobacterium rhinotracheale*:
The dose is 25 mg tylvalosin per kg bodyweight per day in drinking water for 5 consecutive days.

Determine the combined bodyweight (in kg) of all the turkeys to be treated. Select the correct number of sachets according to the amount of product required.

One sachet of 40 g is sufficient to treat a total of 1,000 kg of turkeys (e.g. 10,000 birds with an average bodyweight of 100 g).

One sachet of 400 g is sufficient to treat a total of 10,000 kg of turkeys (e.g. 10,000 birds with an average bodyweight of 1 kg).

In order to achieve a correct dose, the preparation of a concentrated (stock) solution might be required (e.g. to treat a total of 500 kg total bird weight, only 50% of the prepared stock solution prepared from the 40 g sachet should be used).

The product should be added to a volume of water that the turkeys will consume in one day. No other source of drinking water should be available during the medication period.

Mixing instructions:

The veterinary medicinal product may be mixed directly into the drinking water system or first mixed as a stock solution into a smaller amount of water, which is then added into the drinking water system.

When mixing the product directly into the drinking water system, the contents of the sachet should be sprinkled onto the surface of the water and mixed thoroughly until a clear solution is produced (usually within 3 minutes).

When preparing a stock solution, the maximum concentration should be 40 g per 1,500 ml or 400 g of product per 15 litres water and it is necessary to mix the solution for 10 minutes. After this time, any remaining cloudiness will not affect efficacy of the product.

Only a sufficient amount of medicated drinking water should be prepared to cover the daily requirements. Medicated drinking water should be replaced every 24 hours.

4.10 Overdose (symptoms, emergency procedures, antidotes), if necessary

No signs of intolerance have been observed in poultry species at up to 150 mg tylvalosin per kg bodyweight per day for 5 days.

4.11 Withdrawal period(s)

Meat and offal: 2 days.
Eggs (chicken): zero days.

Turkeys: Not for use in birds producing eggs for human consumption. Do not use within 21 days of the start of the laying period.

5. PHARMACOLOGICAL PROPERTIES

Pharmacotherapeutic group:

ATCvet code:
QJ01FA92
Pharmacotherapeutic group: antibacterials for systemic use, macrolides.

5.1 Pharmacodynamic properties

Tylvalosin is a macrolide antibiotic. Macrolides are metabolites or derivatives of metabolites of soil organisms obtained by fermentation. They interfere with protein synthesis by reversibly binding to the 50S ribosome subunit. They are generally considered bacteriostatic.

Tylvalosin has activity against pathogenic organisms isolated from a range of animal species, mainly Gram-positive organisms and mycoplasma but also some Gram-negative organisms.
Macrolides (including tylvalosin) have been shown to have effects on the innate immune system, which may augment the direct effects of the antibiotic on the pathogen and aid the clinical situation.

Chicken
Tylvalosin has activity against the following mycoplasma species found in chicken: *Mycoplasma gallisepticum*.

The minimal inhibitory concentration (MIC) of tylvalosin for *M. gallisepticum* ranges from 0.007 to 0.25 µg/ml.

Turkeys
Tylvalosin has activity against *Ornithobacterium rhinotracheale*, a Gram-negative organism found in turkeys and chickens.
The MIC of tylvalosin for *Ornithobacterium rhinotracheale* ranges from 0.016 to 32 µg/ml.

Efficacy of tylvalosin against *O. rhinotracheale* in turkeys was demonstrated in a challenge model using co-infection with avian metapneumovirus and a single strain of *O. rhinotracheale* under strictly controlled conditions. These studies demonstrated a modest but statistically significant reduction in the incidence of lower respiratory lesions (lung and air sac) and clinical signs in turkeys treated with tylvalosin compared with negative controls. Efficacy studies under field conditions have not been conducted.

Bacteria can develop resistance to antimicrobial substances. There are multiple mechanisms responsible for resistance development to macrolide compounds.
Cross-resistance within the macrolide group of antibiotics cannot be excluded. Reduced susceptibility for tylvalosin was generally noted in tylosin resistant strains.

5.2 Pharmacokinetic particulars

Tylvalosin tartrate is rapidly absorbed after oral administration of the veterinary medicinal product. Tylvalosin is widely distributed in tissues, with the highest concentrations found in the respiratory tissues, bile, intestinal mucosa, spleen, kidney and liver.

Tylvalosin has been shown to concentrate in phagocytic cells and gut epithelial cells. Concentrations (up to 12 times) were achieved in the cells (intracellular), compared to the extracellular concentration. *In vivo* studies have shown tylvalosin to be present in higher concentrations in the mucous lining of the respiratory and gut tissues compared to the plasma.

The major metabolite of tylvalosin is 3-acetyltylosin (3-AT), which is also microbiologically active.

The terminal half-lives for the elimination of tylvalosin and its active metabolite 3-AT range from 1 to1.45 hours in the chicken. Six hours after treatment, the concentration of tylvalosin in the gastrointestinal tract mucosa has a mean concentration of 133 ng/g and in the gastrointestinal contents of 1,040 ng/g. The active metabolite 3-AT has a mean concentration of 57.9 ng/g and 441 ng/g, respectively.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Lactose monohydrate

6.2 Major 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 as packaged for sale:
40 g sachet – 3 years.
400 g sachet – 2 years.

Shelf life after first opening of the immediate packaging: 5 weeks.
Shelf life of the medicated drinking water: 24 hours.

6.4 Special precautions for storage

Do not store above 25 °C.

6.5 Nature and composition of immediate packaging

Aluminium foil laminated sachet containing 40 g or 400 g of granules.

Not all pack sizes may be marketed.

6.6 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.
Any unused veterinary medicinal product or waste materials derived from such veterinary medicinal product should be disposed of in accordance with local requirements.

7. MARKETING AUTHORISATION HOLDER

ECO Animal Health Ltd
The Grange
100 High Street
London
N14 6BN
United Kingdom

8. MARKETING AUTHORISATION NUMBER

Vm 13277/5002

9. DATE OF FIRST AUTHORISATION

09 September 2004

10. DATE OF REVISION OF THE TEXT

July 2024

PROHIBITION OF SALE, SUPPLY AND/OR USE

Not applicable.

11. CLASSIFICATION OF VETERINARY MEDICINAL PRODUCT

Veterinary medicinal product subject to prescription.

Gavin Hall
Approved: 01 December 2024