SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Paramectin Drench 0.8 mg/ml Oral Solution

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Active Substance:
Ivermectin 0.8 mg/ml

Excipients:
Benzyl alcohol 30 ml/ml

For the full list of excipients, see section 6.1

3. PHARMACEUTICAL FORM

Oral solution
A pale yellow clear liquid

4. CLINICAL PARTICULARS

4.1 Target species

Sheep

4.2 Indications for use, specifying the target species

Treatment and control of gastrointestinal nematodes, lungworms and nasal bots of sheep

Gastrointestinal worms (adult and immature):
Haemonchus contortus, Ostertagia circumcincta, Trichostrongylus spp, *Cooperia* spp, *Nematodirus* spp including *N. battus, Strongyloides papillosus*, *Oesophagostomum* spp, and adult *Chabertia ovina*

Inhibited larval stages and benzimidazole resistant strains of *H. contortus* and *Ostertagia circumcincta* are also controlled.

Lungworms (adult and immature):
Dictyocaulus filaria

Nasal bot (all larval stages):
Oestrus ovis

4.3 Contraindications

The product has been formulated specifically for use in sheep. It should not be used in other species, as severe adverse reactions, including fatalities in dogs, may occur.

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

The product is not for intravenous or intramuscular use.

Do not use in sheep producing milk for human consumption.

4.4 Special warnings for each target species

Care should be taken to avoid the following practices because they increase the risk of development of resistance and could ultimately result in ineffective therapy:

- Too frequent and repeated use of anthelmintics from the same class, over an extended period of time.
- Underdosing which may be due to underestimation of body weight, misadministration of the product, or lack of calibration of the dosing device (if any).

Suspected clinical cases of resistance to anthelmintics should be further investigated using appropriate tests (e.g. Faecal Egg Count Reduction Test). Where the results of the test(s) strongly suggest resistance to a particular anthelmintic, an anthelmintic belonging to another pharmacological class and having a different mode of action should be used.

Resistance to ivermectin (an avermectin) has been reported in *Teladorsagia* in sheep and goats within the EU and it is common in *Haemonchus* in sheep outside the EU. Therefore the use of this product should be based on local (regional, farm) epidemiological information about susceptibility of nematodes and recommendations on how to limit further selection for resistance to anthelmintics.

4.5 Special precautions for use

i) Special precautions for use in animals

None

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

Avoid contact with skin and eyes.
In case of accidental spillage onto the skin or eyes, wash the affected area with clean running water immediately. Seek medical attention if irritation persists.
Do not smoke, drink or eat while handling the product.
Wash hands after use.

4.6 Adverse reactions (frequency and seriousness)

Some animals may cough slightly immediately after treatment. This is a temporary occurrence and is of no clinical consequence.

4.7 Use during pregnancy, lactation or lay

The product can be administered to ewes at any stage of pregnancy or lactation provided that the milk is not used for human consumption.

4.8 Interaction with other medicinal products and other forms of interaction

None known

4.9 Amount(s) to be administered and administration route

Ivermectin should be administered at a dosage rate of 200 μg per kg bodyweight (2.5 ml per 10 kg bodyweight). It should be administered orally. It is recommended that a suitably calibrated dosing gun is used to allow accurate dosing especially in young animals.

To ensure administration of a correct dose, body weight should be determined as accurately as possible; accuracy of the dosing device should be checked.

Do not mix with other products

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

The product has demonstrated a wide safety margin at the recommended dose rate. No antidote has been identified however symptomatic treatment may be beneficial.

4.11 Withdrawal period(s)

Meat and offal: 14 days
Do not use in sheep producing milk for human consumption.

5. PHARMACOLOGICAL PROPERTIES

Pharmacotherapeutic Group: Endectocide
ATC Vet Code: QP54 AA 01

5.1 Pharmacodynamic properties

Ivermectin is a 22,23-dihydro derivative of an avermectin (which is a fermentation product produced by *Streptomyces avermitilis*) and consists of 2 homologues: B1a and B1b. It is a highly effective parasiticide with nematocidal, insecticidal and acaricidal activity documented in a wide range of domesticated animals.

Avermectins interact selectively and with high affinity with glutamate-gated chloride ion channels, which only occur in invertebrate nerve and muscle cells. This increases membrane permeability to chloride ions, causing irreversible neuromuscular blockades in nematodes, followed by paralysis and death. The macrocyclic lactones have a low affinity for other mammalian ligand gated chloride channels and they do not readily cross the blood brain barrier.

5.2 Pharmacokinetic particulars

After administration orally to sheep at a dose of 200 µg/kg, maximum plasma concentration of ivermectin was 5.99 µg/ml at 16.2 hours after administration and the elimination half-life was approximately 25 hours.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Benzyl alcohol
Polysorbate 80
Dimethylacetamide
Sodium phosphate dihydrate
Sodium acid phosphate dihydrate
Water purified

6.2 Major Incompatibilities

None known.

6.3 Shelf life

Shelf-life of the veterinary medicinal product as packaged for sale: 5 Years.

6.4 Special precautions for storage

Do not store above 25°C.
Keep container in outer carton

6.5 Nature and composition of immediate packaging

Supplied in 1.0L, 2.5L, 5.0L and 2 x 5.0L volumes, presented in high density polyethylene Jerry Cans or high density polyethylene back-packs with polypropylene closures.

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

EXTREMELY DANGEROUS to fish and aquatic life do not contaminate ponds, waterways or ditches with the product or unused container. Any unused veterinary medicinal product or waste materials derived from such veterinary medicinal products should be disposed of in accordance with local requirements.

7. MARKETING AUTHORISATION HOLDER

Norbrook Laboratories Limited
Station Works
Camlough Road
Newry
Co. Down
BT35 6JP
Northern Ireland

8. MARKETING AUTHORISATION NUMBER

Vm 02000/4263

9. DATE OF FIRST AUTHORISATION

08 November 2006

10. DATE OF REVISION OF THE TEXT

July 2018

Further information:
Ivermectin belongs to the avermectin (3-AV) class of anthelmintic compounds, chemical group of anthelmintic 3-AV.

Approved: 27 July 2018