

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Solantel 50 mg/ml Oral Suspension for Sheep [IE][UK]

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains:

Active substances:

Closantel	50.0 mg
(as Closantel Sodium Dihydrate)	54.375 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)	217.6 mg
Microcrystalline Cellulose and Carmellose Sodium	
Hypromellose	
Sodium Lauryl Sulfate	
Simethicone Emulsion	
Water purified	

Off-white to yellow suspension.

3. CLINICAL INFORMATION

3.1 Target species

Sheep.

3.2 Indications for use for each target species

For the treatment of chronic and subacute fasciolosis (due to *Fasciola hepatica*).

The veterinary medicinal product is effective against mature and late immature flukes (from 5 weeks immature).

For the treatment of *Oestrus ovis* (Sheep Nasal Bot Fly).

For the treatment of inhibited, L4 and adult stages of *Haemonchus contortus*.

3.3 Contraindications

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

3.4 Special warnings

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 veterinary medicinal 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 closantel has been reported in *Haemonchus* species outside the EU. The use of this veterinary medicinal 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.

3.5 Special precautions for use

Special precautions for safe use in the target species:

When using a drenching gun, take care not to injure the mouth or pharynx.

Do not exceed the stated dose.

The veterinary medicinal product can be used in all age groups of sheep and lambs.

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

This veterinary medicinal product may be irritating to skin and eyes and users should be careful not to accidentally splash it on themselves or others.

In case of accidental spillage onto skin or into eyes, rinse the affected area with large amounts of clean water. If irritation persists, seek medical advice immediately and show the package leaflet or label to the physician.

Personal protective equipment consisting of nitrile rubber gloves should be worn when handling the veterinary medicinal product.

Wash hands after use.

Do not eat, drink or smoke while handling the veterinary medicinal product.

Special precautions for the protection of the environment:

Closantel is very toxic to dung fauna.

The risk to dung fauna can be reduced by avoiding too frequent and repeated use of closantel (and veterinary medicinal products of the same anthelmintic class) in sheep and lambs. Animals should not normally be treated in excess of three times a year with closantel.

3.6 Adverse events

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 the package leaflet respective contact details.

3.7 Use during pregnancy, lactation or lay

Pregnancy and lactation:

The veterinary medicinal product can be used at any time during pregnancy. It can also be used in rams at any time including during the breeding season.

The safety of the veterinary medicinal product for use during lactation has not been established.

3.8 Interaction with other medicinal products and other forms of interaction

None known.

3.9 Administration routes and dosage

Oral use.

The veterinary medicinal product is to be given as a drench. The recommended dosage rate is 10 mg of closantel per kg bodyweight (i.e. 1 ml of the veterinary medicinal product per 5 kg bodyweight).

For example:

<u>Bodyweight</u>	<u>Dose</u>
Up to 5 kg	1 ml
10 kg	2 ml
20 kg	4 ml
30 kg	6 ml
40 kg	8 ml
50 kg	10 ml
60 kg	12 ml
70 kg	14 ml
80 kg	16 ml

To ensure a correct dosage, body weight should be determined as accurately as possible. Accuracy of the dosing device should be checked. If animals are to be treated collectively rather than individually, they should be grouped according to their body weight and dosed accordingly in order to avoid under- or over-dosing.

The timing for treatment should be based on epidemiological factors and should be customised for each individual farm. As with other anthelmintics, veterinary advice should be sought on appropriate dosing programmes and stock management to achieve adequate parasite control and reduce the likelihood of resistance developing.

Suitable for use with most types of standard drenching equipment.
Shake well before use.

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

Symptoms of acute overdosage are decreased vision or blindness, anorexia, in-coordination and general weakness.

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: 56 days.

Not authorised for use in ewes producing milk for human consumption including during the dry period.

Do not use within 1 year prior to the first lambing in ewes intended to produce milk for human consumption.

4. PHARMACOLOGICAL INFORMATION

4.1 ATCvet code :
QP52AG09

4.2 Pharmacodynamics

The veterinary medicinal product contains the salicylanilide closantel, a synthetic antiparasitic agent with high activity against liver fluke, haematophagous nematodes and the larval stages of some arthropods in sheep.

Closantel uncouples the mitochondrial oxidative phosphorylation resulting in inhibition of ATP synthesis. This induces a marked change in the energy metabolism of the parasite which finally kills it.

Closantel is active against benzimidazole resistant strains of *Haemonchus contortus*.

4.3 Pharmacokinetics

Closantel is rapidly absorbed into the systemic circulation with peak plasma levels at 24-48 hours after dosing. The bioavailability of an oral dose is 50 %. In plasma, closantel is bound to albumin for more than 99 %. As a result, tissue distribution is very limited. On average, tissue levels are 15 times lower than plasma levels. The elimination half-life of closantel from plasma and tissues is approximately 2 to 4 weeks in sheep. Closantel is metabolised only to a slight extent and the main excretion route is the bile. The urinary excretion is negligible.

Environmental properties

Closantel has the potential to adversely affect non-target organisms. Following treatment, excretion of potentially toxic levels of closantel may take place over a period of several weeks. Faeces containing closantel excreted onto pasture by treated animals may reduce the abundance of dung feeding organisms which may impact on the dung degradation.

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: 2 years.
Shelf life after first opening the immediate packaging: 28 days.

5.3 Special precautions for storage

Do not store above 30 °C.
Keep the container in the outer carton in order to protect from light.
Store upright in the original container.
Protect from cold.
Shake well before use.

5.4 Nature and composition of immediate packaging

White high density polyethylene multidose container backpacks with high density polyethylene screw cap with induction-seal liners.

Pack sizes:
Box with 1 multidose container of 1 litre

Box with 1 multidose container of 2.5 litres
Box with 1 multidose container of 5 litres
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.

The veterinary medicinal product should not enter water courses as closantel may be dangerous for fish and other aquatic organisms.

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

Norbrook Laboratories (Ireland) Limited

Norbrook Laboratories Ltd

7. MARKETING AUTHORISATION NUMBER(S)

8. DATE OF FIRST AUTHORISATION

Date of first authorisation: {DD/MM/YYYY}

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

{MM/YYYY}

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 \(https://medicines.health.europa.eu/veterinary\)](https://medicines.health.europa.eu/veterinary).

ANNEX III
LABELLING AND PACKAGE LEAFLET

A. LABELLING

PARTICULARS TO APPEAR ON THE OUTER PACKAGE

{CARTON}

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Solantel 50 mg/ml Oral Suspension for Sheep

2. STATEMENT OF ACTIVE SUBSTANCES

Each ml contains:

Closantel	50.0 mg
(as Closantel Sodium Dihydrate)	54.375mg

3. PACKAGE SIZE1L,
2.5L,
5L**4. TARGET SPECIES**

Sheep

5. INDICATIONS**6. ROUTES OF ADMINISTRATION**

Oral use.

The veterinary medicinal product is to be given as a drench.

The recommended dosage rate is 10 mg of closantel per kg bodyweight (i.e. 1 ml of the veterinary medicinal product per 5 kg bodyweight).

HANDY DOSING GUIDE		ANIMALS SHOULD BE WEIGHED AND GROUPED ACCORDING TO BODYWEIGHT TO AVOID UNDER OR OVER-DOSING		
BODYWEIGHT	DOSE VOLUME	NUMBER OF FULL DOSES PER PACK		
		1 litre	2.5 litre	5 litre
Up to 5 kg	1 ml	1000	2500	5000
10 kg	2 ml	500	1250	2500
20 kg	4 ml	250	625	1250
30 kg	6 ml	166	416	833
40 kg	8 ml	125	312	625
50 kg	10 ml	100	250	500
60 kg	12 ml	83	208	416
70 kg	14 ml	71	178	357
80 kg	16 ml	62	156	312

7. WITHDRAWAL PERIODS

Withdrawal periods:

Meat and offal: 56 days.

Not authorised for use in ewes producing milk for human consumption including during the dry period. Do not use within 1 year prior to the first lambing in ewes intended to produce milk for human consumption.

8. EXPIRY DATE

Exp. {mm/yyyy}

Once opened use within: 28 days.

9. SPECIAL STORAGE PRECAUTIONS

Do not store above 30 °C.

Keep the container in the outer carton in order to protect from light.

Store upright in the original container.

Protect from cold. Shake well before use.

10. THE WORDS “READ THE PACKAGE LEAFLET BEFORE USE”

Read the package leaflet before use.

11. THE WORDS “FOR ANIMAL TREATMENT ONLY”

For animal treatment only.

12. THE WORDS “KEEP OUT OF THE SIGHT AND REACH OF CHILDREN”

Keep out of the sight and reach of children.

13. NAME OF THE MARKETING AUTHORISATION HOLDER

Norbrook Laboratories Ltd

Norbrook Laboratories (Ireland) Limited

14. MARKETING AUTHORISATION NUMBERS

15. BATCH NUMBER

Lot {number}

PARTICULARS TO APPEAR ON THE IMMEDIATE PACKAGE

{LABEL}

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Solantel 50mg/ml Oral Suspension for Sheep

2. STATEMENT OF ACTIVE SUBSTANCES

Each ml contains:

Active substance:

Closantel	50.0 mg
(as Closantel Sodium Dihydrate)	54.375mg

3. TARGET SPECIES

Sheep

4. ROUTES OF ADMINISTRATION

Oral use.

The veterinary medicinal product is to be given as a drench. The recommended dosage rate is 10 mg of closantel per kg bodyweight (i.e. 1 ml of the veterinary medicinal product per 5 kg bodyweight).

HANDY DOSING GUIDE		ANIMALS SHOULD BE WEIGHED AND GROUPED ACCORDING TO BODYWEIGHT TO AVOID UNDER OR OVER-DOSING		
BODYWEIGHT	DOSE VOLUME	NUMBER OF FULL DOSES PER PACK		
		1 litre	2.5 litre	5 litre
Up to 5 kg	1 ml	1000	2500	5000
10 kg	2 ml	500	1250	2500
20 kg	4 ml	250	625	1250
30 kg	6 ml	166	416	833
40 kg	8 ml	125	312	625
50 kg	10 ml	100	250	500
60 kg	12 ml	83	208	416
70 kg	14 ml	71	178	357
80 kg	16 ml	62	156	312

Read the package leaflet before use.

5. WITHDRAWAL PERIODS

Withdrawal periods:

Meat and offal: 56 days.

Not authorised for use in ewes producing milk for human consumption including during the dry period. Do not use within 1 year prior to the first lambing in ewes intended to produce milk for human consumption.

6. EXPIRY DATE

Exp. {mm/yyyy}

Once opened use within: 28 days.

Use by: __/__/__

7. SPECIAL STORAGE PRECAUTIONS

Do not store above 30 °C.

Keep the container in the outer carton in order to protect from light.

Store upright in the original container.

Protect from cold. Shake well before use.

8. NAME OF THE MARKETING AUTHORISATION HOLDER

Norbrook Laboratories Ltd

Norbrook Laboratories (Ireland) Limited

9. BATCH NUMBER

Lot {number}

B. PACKAGE LEAFLET

PACKAGE LEAFLET

1. Name of the veterinary medicinal product

Solantel 50mg/ml Oral Suspension for Sheep [IE][UK]

2. Composition

Each ml contains:

Active substances:

Closantel:	50 mg
(as closantel sodium dihydrate)	54.375 mg

Excipients:

Propylene glycol (E1520)	217.6 mg
--------------------------	----------

Off-white to yellow suspension.

3. Target species

Sheep.

4. Indications for use

For the treatment of chronic and subacute fasciolosis (due to *Fasciola hepatica*). The veterinary medicinal product is effective against mature and late immature flukes (from 5 weeks immature).
For the treatment of *Oestrus ovis* (Sheep Nasal Bot Fly).
For the treatment of inhibited, L4 and adult stages of *Haemonchus contortus*.

5. Contraindications

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

6. Special warnings

Special warnings:

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 veterinary medicinal 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 closantel has been reported in *Haemonchus* species outside the EU. The use of this veterinary medicinal 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.

Special precautions for safe use in the target species:

When using a drenching gun, take care not to injure the mouth or pharynx.

Do not exceed the stated dose.

The veterinary medicinal product can be used in all age groups of sheep and lambs.

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

This veterinary medicinal product may be irritating to skin and eyes and users should be careful not to accidentally splash it on themselves or others.

In case of accidental spillage onto skin or into eyes, rinse the affected area with large amounts of clean water. If irritation persists, seek medical advice immediately and show the package leaflet or label to the physician.

Personal protective equipment consisting of nitrile rubber gloves should be worn when handling the veterinary medicinal product.

Wash hands after use.

Do not eat, drink or smoke while handling the veterinary medicinal product.

Special precautions for the protection of the environment:

Closantel is very toxic to dung organisms.

Closantel has the potential to adversely affect non-target organisms. Following treatment, excretion of potentially toxic levels of closantel may take place over a period of several weeks. Faeces containing closantel excreted onto pasture by treated animals may reduce the abundance of dung feeding organisms which may impact on the dung degradation.

The risk to dung fauna can be reduced by avoiding too frequent and repeated use of closantel (and veterinary medicinal products of the same anthelmintic class) in sheep and lambs. Animals should not normally be treated in excess of three times a year with closantel.

Pregnancy and lactation:

The veterinary medicinal product can be used at any time during pregnancy. It can also be used in rams at any time including during the breeding season.

The safety of the veterinary medicinal product for use during lactation has not been established.

Interaction with other medicinal products and other forms of interaction:

None known.

Overdose:

Symptoms of acute overdosage are decreased vision or blindness, anorexia, in-coordination and general weakness.

Major incompatibilities:

In the absence of compatibility studies, this veterinary medicinal product must not be mixed with other veterinary medicinal products.

7. Adverse events

None known.

Reporting adverse events is important. It allows continuous safety monitoring of a product. If you notice any side effects, even those not already listed in this package leaflet, or you think that the medicine has not worked, please contact, in the first instance, your veterinarian. You can also report any adverse events to the marketing authorisation holder or its local representative using the contact details at the end of this leaflet, or via your national reporting system: {national system details}

8. Dosage for each species, routes and method of administration

Oral use.

The veterinary medicinal product is to be given as a drench. The recommended dosage rate is 10 mg of closantel per kg bodyweight (i.e. 1 ml of the veterinary medicinal product per 5 kg bodyweight).

For example:

<u>Bodyweight</u>	<u>Dose</u>
Up to 5 kg	1 ml
10 kg	2 ml
20 kg	4 ml
30 kg	6 ml
40 kg	8 ml
50 kg	10 ml
60 kg	12 ml
70 kg	14 ml
80 kg	16 ml

Suitable for use with most types of standard drenching equipment.
Shake well before use.

9. Advice on correct administration

To ensure a correct dosage bodyweight should be determined as accurately as possible Accuracy of the dosing device should be checked. If animals are to be treated collectively rather than individually, they should be grouped according to their body weight and dosed accordingly in order to avoid under- or over-dosing.

The timing for treatment should be based on epidemiological factors and should be customised for each individual farm. As with other anthelmintics, veterinary advice should be sought on appropriate dosing programmes and stock management to achieve adequate parasite control and reduce the likelihood of resistance developing.

10. Withdrawal periods

Meat and offal: 56 days.

Not authorised for use in ewes producing milk for human consumption including during the dry period.

Do not use within 1 year prior to the first lambing in ewes intended to produce milk for human consumption.

11. Special storage precautions

Keep out of the sight and reach of children.

Do not store above 30 °C.

Keep the container in the outer carton in order to protect from light.

Store upright in the original container.

Do not use this veterinary medicinal product after the expiry date which is stated on the label after EXP. The expiry date refers to the last day of that month.

Shelf life after first opening the container: 28 days.

Protect from cold.
Shake well before use.

12. Special precautions for disposal

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

This veterinary medicinal product should not enter water courses as closantel may be dangerous for fish and other aquatic organisms.

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 applicable national collection systems. These measures should help to protect the environment.

Ask your veterinary surgeon or pharmacist how to dispose of medicines no longer required.

13. Classification of veterinary medicinal products

Veterinary medicinal product subject to prescription.

14. Marketing authorisation numbers and pack sizes

White high density polyethylene multidose container backpacks with high density polyethylene screw cap with induction-seal liners.

Pack sizes:

Box with 1 multidose container of 1 litre
Box with 1 multidose container of 2.5 litres
Box with 1 multidose container of 5 litres

Not all pack sizes may be marketed.

15. Date on which the package leaflet was last revised

{MM/YYYY}

Detailed information on this veterinary medicinal product is available in the [Union Product Database \(https://medicines.health.europa.eu/veterinary\)](https://medicines.health.europa.eu/veterinary).

16. Contact details

Marketing authorisation holder and contact details to report suspected adverse events:

Norbrook Laboratories Ltd
Station Works
NEWRY
Co. Down, BT35 6JP
Northern Ireland
Tel: +44 (0)28 3026 4435
E-mail: phvdept@norbrook.co.uk

Norbrook Laboratories (Ireland) Limited
Rossmore Industrial Estate
Monaghan
Ireland

Tel: +44 (0)28 3026 4435
E-mail: phvdept@norbrook.co.uk

Manufacturer responsible for batch release:

Norbrook Laboratories Ltd
Station Works
NEWRY
Co. Down, BT35 6JP
Northern Ireland

Norbrook Manufacturing Ltd.
Rossmore Industrial Estate
Monaghan,
Ireland

17. Other information

Closantel is active against benzimidazole resistant strains of *Haemonchus contortus*.