

ELIVEC 5 mg/ml

Eprinomectin pour-on solution for cattle, sheep and goats

PROTECTION FROM ALL DIRECTIONS

ZERO HOURS WITHDRAWAL PERIOD in milk

ELIVEC 5 mg/ml pour-on solution for cattle, sheep and goats

One ml of solution contains: **Active substance:** Eprinomectin 5.00 mg

Indications for use, specifying the target species
Treatment of infestations by the following parasites:

Cattle:
Gastrointestinal roundworms: *Ostertagia* spp., *Ostertagia ostertagi* (including inhibited L4 larvae), *Ostertagia lyrata* (only adults), *Haemonchus placei*, *Trichostrongylus* spp., *Trichostrongylus axei*, *Trichostrongylus colubriformis*, *Cooperia* spp. (including inhibited L4 larvae), *Cooperia oncophora*, *Cooperia punctata*, *Cooperia pectinata*, *Cooperia surnabada*, *Bunostomum phlebotomum*, *Nematodirus helvetianus*, *Oesophagostomum* spp. (only adults), *Oesophagostomum radiatum*, *Trichuris* spp. (only adults).

Lungworms (Adults and L4): *Dictyocaulus viviparus*
Warbles (parasitic stages): *Hypoderma bovis*, *Hypoderma lineatum*

Mange mites: *Chorioptes bovis*, *Sarcoptes scabiei* var. *Bovis*

Sucking lice: *Linognathus vituli*, *Haematopinus eurysternus*, *Solenopotes capillatus*

Biting lice: *Damalinia bovis*
Horn flies: *Haematobia irritans*

The veterinary medicinal product protects the animals against reinfestations with:

- *Nematodirus helvetianus* for 14 days.
- *Trichostrongylus axei*, *Trichostrongylus colubriformis* and *Haemonchus placei* for 21 days.
- *Dictyocaulus viviparus*, *Cooperia oncophora*, *Cooperia punctata*, *Cooperia surnabada*, *Oesophagostomum radiatum* and *Ostertagia ostertagi* for 28 days.

The duration of persistent efficacy can be variable for *Cooperia* spp and *H. placei* 14 days after treatment in particular in young and lean animals at the time of treatment.

Sheep and Goats:
Gastrointestinal roundworms (adults): *Teladorsagia circumcincta* (pinnata/trifurcata), *Haemonchus contortus*, *Trichostrongylus axei*, *Trichostrongylus colubriformis*, *Nematodirus battus*, *Cooperia curticei*, *Chabertia ovina* (only in sheep), *Oesophagostomum venulosum*
Lungworm (adult): *Dictyocaulus filaria*
Nasal Bots (L1, L2, L3): *Oestrus ovis*
Warbles (L1, L2, L3): *Przhevalskiana Silenus* (only in goats)

Contraindications
Do not use in other animal species. Avermectins may not be well tolerated in non-target species (including dogs, cats and horses). Cases of mortality are reported in dogs, especially Collies, bobtail and related breeds and crosses, and also in turtles/tortoises. Do not administer orally or by injection. Do not use in cases of hypersensitivity to the active substance or to any of the excipients.

Special precautions for use in target species
For external use only. The veterinary medicinal product should be applied only on healthy skin. To avoid secondary reactions due to the death of

Hypoderma larvae in the oesophagus or backbone, it is recommended to administer the veterinary medicinal product after the end of warble fly activity, and before the larvae reach their resting sites in the body; consult a veterinary surgeon to know the appropriate treatment period.

Special precautions to be taken by the person administering the product

People with known hypersensitivity to the active substance or to any of the excipients should avoid contact with the veterinary medicinal product. Eprinomectin can be transferred to breast milk. Therefore, breast-feeding users should handle the veterinary medicinal product with great care. This veterinary medicinal product may be irritating to the skin and eyes. Avoid contact with the skin and eyes during treatment and when handling recently treated animals. Personal protective equipment consisting of rubber gloves, boots and a waterproof coat should be worn when handling the veterinary medicinal product. Should clothing become contaminated, remove as soon as possible and launder before re-use. If accidental skin contact occurs, wash the affected area immediately with soap and water. If accidental eye exposure occurs, flush the eyes immediately with water. Should irritation persist, seek medical advice. This veterinary medicinal product may affect the central nervous system if accidentally ingested. Avoid accidental ingestion of the veterinary medicinal product, including by hand to mouth contact. If ingestion does occur, wash the mouth out with water and seek medical advice. Do not smoke, eat or drink while handling the veterinary medicinal product. Wash hands after use.

Other precautions
Eprinomectin is very toxic to aquatic organisms, is persistent in soils and may accumulate in sediments.

Adverse reactions (frequency and seriousness)
Cattle, sheep and goats:

Very rare (<1 animal / 10,000 animals treated, including isolated reports):	Licking, pruritus, alopecia Tremor
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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.

Use during pregnancy, lactation or lay
Pregnancy and lactation: Laboratory studies in rat and rabbit have not produced any evidence of teratogenic or foetotoxic effects due to the use of eprinomectin at therapeutic doses.
Cattle: Laboratory studies in cattle have not produced any evidence of teratogenic or foetotoxic effects at the recommended therapeutic dose. The veterinary medicinal product can be used in dairy cattle during pregnancy and lactation.
Sheep and Goats: The safety of the veterinary medicinal product has not been established during pregnancy and lactation for sheep and goats. Use only according to the benefit-risk assessment of the responsible veterinarian.



Interaction with other medicinal products and other forms of interaction
Since eprinomectin binds strongly to plasma proteins, this should be taken into account if it is used in association with other molecules having the same characteristics.

Amounts to be administered and administration route
Pour-on use. For single application.
Cattle: 0.05 mg eprinomectin/kg b.w. (1 ml/10 kg b.w.).
Sheep and Goats: 1.0 mg eprinomectin / kg b.w. (2 ml / 10 kg b.w.).

Overdose (symptoms, emergency procedures, antidotes), if necessary
No signs of toxicity were observed when 8-week old calves were treated at up to 5 times the therapeutic dose (2.5 mg eprinomectin/kg bodyweight.) 3 times at 7-day intervals. One calf treated once at 10 times the therapeutic dose (5 mg/kg bodyweight.) in the tolerance study showed transient mydriasis. There were no other adverse reactions to the treatment. No signs of toxicity were observed when 17-week old sheep were treated at doses up to 5 times the therapeutic dose (5 mg eprinomectin/kg bodyweight) 3 times at 14-day intervals. No antidote has been identified.

Withdrawal periods
Cattle: Meat and offal: 15 days. Milk: Zero hours.
Sheep: Meat and offal: 2 days. Milk: Zero hours.
Goats: Meat and offal: 1 day. Milk: Zero hours.

Shelf life
Shelf life of the veterinary medicinal product as packaged for sale: 2 years. After first opening: 18 months and before expiry date.

Special precautions for storage
1 L: Keep the bottle in the outer carton in order to protect from light.
2.5 L and 5 L: This veterinary medicinal product does not require any special storage conditions.

Pack size
1L, 2.5 L and 5 L plastic bottles.

Marketing authorisation holder
LIVISTO
Av. Universidad Autònoma, 29
08290 Cerdanyola del Vallès
Barcelona (Spain).

Reference
1. Riviere, J. E. & Papich, M.G. Veterinary Pharmacology & Therapeutics; 1190-1191 (Wiley-Backwell, 2009).
2. Rehbein S, Baggott DG, Royer GC et al (2013). Therapeutic efficacy of eprinomectin extended-release injection against induced infections of developing (fourth-stage larvae) and adult nematode parasites of cattle. *Vet. Parasitol.* 192, 338–345.
3. Cramer L, Pitt S, Rehbein S et al. (2000). Persistent efficacy of topical eprinomectin against nematode parasites in cattle. *Parasitol. Res.* 86, 944–6.
4. Baoliang P, Yuwan W, Zhende P et al (2006). Pharmacokinetics of eprinomectin in plasma and milk following subcutaneous administration to Lactating dairy cattle. *Vet. Res. Commun.* 30, 263–270.



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PROTECTION FROM ALL DIRECTIONS

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Along with you

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ENDECTOCIDE ACTIVITY

ELIVEC has broad spectrum activity with high rates of efficacy against several common species of both endoparasites and ectoparasites.

CATTLE

ENDOPARASITES



GASTROINTESTINAL ROUNDWORMS (Adults and L4 larvae)

- *Ostertagia* spp.
- *Ostertagia ostertagi* (including inhibited L4 larvae)
- *Ostertagia lyrata* (only adults)
- *Haemonchus placei*
- *Trichostrongylus* spp.
- *Trichostrongylus axei*
- *Trichostrongylus colubriformis*
- *Cooperia* spp. (including inhibited L4 larvae)
- *Cooperia oncophora*
- *Cooperia punctata*
- *Cooperia pectinata*
- *Cooperia surnabada*
- *Bunostomum phlebotomum*
- *Nematodirus helvetianus*
- *Oesophagostomum* spp. (only adults)
- *Oesophagostomum radiatum*
- *Trichuris* spp. (only adults)



LUNGWORMS

- *Dictyocaulus viviparus* (adults and L4)

ECTOPARASITES



SUCKING LICE

- *Linognathus vituli*
- *Haematopinus eurysternus*
- *Solenopotes capillatus*



BITING LICE

- *Damalinia bovis*



HORN FLIES

- *Haematobia irritans*



WARBLES (parasitic stages)

- *Hypoderma bovis*
- *Hypoderma lineatum*



MANGE MITES

- *Chorioptes bovis*
- *Sarcoptes scabiei* var. *Bovis*

SHEEP AND GOATS

ENDOPARASITES



GASTROINTESTINAL ROUNDWORMS (Adults)

- *Teladorsagia circumcincta* (*pinnata/trifurcata*)
- *Haemonchus contortus*
- *Trichostrongylus axei*
- *Trichostrongylus colubriformis*
- *Nematodirus battus*
- *Cooperia curticei*
- *Chabertia ovina* (only in sheep)
- *Oesophagostomum venulosum*



LUNGWORMS (Adults)

- *Dictyocaulus filaria*



NASAL BOTS (L1, L2, L3)

- *Oestrus ovis*



WARBLES (L1, L2, L3)

- *Przhevalskiana Silenus* (only in goats)

PROTECTION FROM ALL DIRECTIONS



NEMATOCIDE PERSISTENT ACTIVITY

ELIVEC is a nematocide with persistent efficacy against some gastrointestinal nematodes, preventing reinfestation for 14-28 days after treatment.

14 days protection		
<i>Nematodirus helvetianus</i>		
21 days protection		
<i>Trichostrongylus axei</i>	<i>Haemonchus placeiformis</i>	<i>Trichostrongylus colubriformis</i>
28 days protection		
<i>Dictyocaulus viviparus</i>	<i>Trichostrongylus colubriformis</i>	<i>Ostertagia ostertagi</i>
<i>Cooperia oncophora</i>	<i>Cooperia punctata</i>	<i>Cooperia surnabada</i>

WITHDRAWAL PERIOD = 0 HOURS IN MILK

Its pharmacokinetic properties allow a withdrawal period of **0 hours in milk**, making ELIVEC a suitable product for parasite control in dairy ruminants at any stage of lactation.

WITHDRAWAL PERIOD

Meat and offal: 15 days
Milk: 0 hours



Meat and offal: 2 days
Milk: 0 hours



Meat and offal: 1 day
Milk: 0 hours



STAYS IN SKIN FOR LONGER

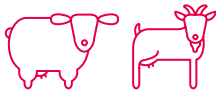
ELIVEC has an oil content of more than 90% giving it much greater adhesive properties and making it impervious to rain, with **more adherence to the skin**.¹

DOSAGE

1 ml / 10 kg b.w.
Single treatment, topically.



2 ml / 10 kg b.w.
Single treatment, topically.



Eprinomectin has excellent endectocide activity with 99-100% efficacy rates and persistent activity during post-treatment weeks.^{2,3}

Eprinomectin has higher potency than the other macrocyclic lactones with better average daily gains (adg's) and better antiparasitic efficacy.⁴

LIVISTO encourages the rational use of parasiticides in order to minimise drug resistance and reduce adverse environmental effects.

A targeted parasite control programme using the appropriate product at the correct time will reduce clinical disease and minimise production losses.