MERIAL LTD.

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Every effort has been made to ensure the accuracy of the information published. However, it remains the responsibility of the readers to familiarize themselves with the product information contained on the USA product label or package insert.

## ${f IVOMEC}^{f (B)}$ POUR-ON FOR CATTLE

#### Merial

(ivermectin)

NADA 140-841, Approved by the FDA

Contains 5 mg ivermectin/mL

### **Parasiticide**

## Consult your veterinarian for assistance in the diagnosis, treatment and control of parasitism.

# IVOMEC (ivermectin) Pour-On delivers internal and external parasite control in one convenient low-volume

application. Discovered and developed by scientists from Merck Research Laboratories, IVOMEC Pour-On contains ivermectin, a unique chemical entity.

**MODE OF ACTION** 

## Ivermectin is a member of the macrocyclic lactone class of endectocides which have a unique mode of action. Compounds of

the class bind selectively and with high affinity to glutamate-gated chloride ion channels which occur in invertebrate nerve and muscle cells. This leads to an increase in the permeability of the cell membrane to chloride ions with hyperpolarization of the nerve or

muscle cell, resulting in paralysis and death of the parasite. Compounds of this class may also interact with other ligandgated chloride channels, such as those gated by the neurotransmitter gamma-aminobutyric acid (GABA). The margin of safety for compounds of this class is attributable to the fact that mammals do not have glutamate-gated

chloride channels, the macrocyclic lactones have a low affinity for other mammalian ligand-gated chloride channels and they do not readily cross the blood-brain barrier. **INDICATIONS** 

IVOMEC Pour-On applied at the recommended dose level of 500 mcg/kg is indicated for the effective control of these parasites. **Gastrointestinal Roundworms** 

### Ostertagia ostertagi (including inhibited stage) (adults and L4)

Haemonchus placei (adults and L4)

Trichostrongylus axei (adults and L4)

T. colubrifomis: (adults and L4)

Cooperia oncophora (adults and L4)

Cooperia punctata (adults and L4) Cooperia surnabada (adults and L4)

Strongyloides papillosus (adults)

Oesophagostomum radiatum (adults and L4)

Trichuris spp.(adults)

Lungworms

Dictyocaulus viviparus (adults and L4) **Cattle Grubs** 

#### (parasitic stages) Hypoderma bovis

H. lineatum

## **Mites**

Sarcoptes scabiei var. bovis Lice

Linognathus vituli Haematopinus eurysternus

Damalinia bovis

Solenopotes capillatus **Horn Flies** 

#### Haematobia irritans

PERSISTENT ACTIVITY IVOMEC Pour-On has been proved to effectively control infections and to protect cattle from re-infection with:

### Oesophagostomum radiatum and Dictyocaulus viviparus for 28 days after treatment; Cooperia punctata and

Trichostrongylus axei for 21 days after treatment; Ostertagia ostertagi, Haemonchus placei, Cooperia oncophora and Cooperia surnabada for 14 days after treatment; Damalinia bovis for 56 days after treatment. TREATMENT OF CATTLE FOR HORN FLIES IVOMEC Pour-On controls horn flies (Haematobia irritans) for up to 28 days after dosing. For best results IVOMEC Pour-On should be part of a parasite control program for both internal and external parasites based on the epidemiology of

these parasites. Consult your veterinarian or an entomologist for the most effective timing of applications. The dose rate is 1 mL for each 22 lb of body weight. The formulation should be applied along the topline in a narrow strip extending from the withers to the tailhead.

#### **ADMINISTRATION**

Squeeze-Measure-Pour System (8.5 fl oz/250 mL Bottle with 25 mL Metering - Attach the metering cup to the bottle.

#### - Set the dose by turning the top section of the cup to align the correct body weight with the pointer on the knurled cap. When body weight is between markings, use the higher setting.

- Hold the bottle upright and squeeze it to deliver a slight excess of the required dose as indicated by the calibration lines. - By releasing the pressure, the dose automatically adjusts to the correct level. Tilt the bottle to deliver the dose. The off
- (STOP) position will close the system between dosing. Squeeze-Measure-Pour System (33.8 fl oz/1 Liter Bottle with 50 mL Metering Cup)
- Attach the metering cup to the bottle. - Set the dose by turning the top section of the cup to align the correct body weight with the pointer on the knurled cap.
- When body weight is between markings, use the higher setting.

exhibit compatibility problems resulting in locking, incorrect dosage or leakage.)

Connect the dosing applicator and the draw-off tubing to the container as follows:

- Hold the bottle upright and squeeze it to deliver a slight excess of the required dose as indicated by the calibration lines.
- By releasing the pressure, the dose automatically adjusts to the correct level. Tilt the bottle to deliver the dose. When a 220 Ib (10 mL) or 330 lb (15 mL) dose is required, turn the pointer to "STOP" before delivering the dose. The off (STOP) position will close the system between dosing.
- Collapsible Pack (84.5 fl oz/2.5 L Pack and 169 fl oz/5 L Pack) Connect the applicator gun to the collapsible pack as follows: - Attach the open end of the draw-off tubing to the dosing equipment. (Because of the solvents used in the formulation, only the Protector Drench Gun from Instrument Supplies Limited, or equivalent, is recommended. Other applicators may
- Gently prime the applicator gun, checking for leaks. Follow the manufacturer's directions for adjusting the dose. - When the interval between uses of the applicator gun is expected to exceed 12 hours, disconnect the gun and draw-off

- Replace the shipping cap with the draw-off cap and tighten down. Attach draw-off tubing to the draw-off cap.

- tubing from the product container and empty the product from the gun and tubing back into the product container. To
- prevent removal of special lubricants from the Protector Drench Gun, the gun and tubing must not be washed. 20 Liter Pack (676 fl oz/20 L Pack) Use dosing equipment (applicator, draw-off tubing, cap with stem) compatible with IVOMEC (ivermectin) Pour-On. Other dosing equipment may be incompatible, resulting in locking, incorrect dosage and leakage. Follow the dosing

equipment manufacturer's directions for adjusting the dose and proper use and maintenance of the dosing equipment.

- Attach the open end of the draw-off tubing to an appropriate dosing applicator. Attach draw-off tubing to the cap with the stem. Replace the shipping cap with the cap having the draw-off tubing. Gently prime the dosing applicator, checking for leaks. - When the interval between uses of the applicator gun is expected to exceed 12 hours, disconnect the gun, draw-off tubing and cap with stem from the product container, empty the product from the gun and tubing back into the product container
- and replace the shipping cap. **ANIMAL SAFETY**
- Studies conducted in the U.S.A. have demonstrated the safety margin for ivermectin. Based on plasma levels, the topically applied formulation is expected to be at least as well tolerated by breeding animals as is the subcutaneous formulation which had no effect on breeding performance.

#### **WARNING** NOT FOR USE IN HUMANS.

Keep this and all drugs out of the reach of children. The Material Safety Data Sheet (MSDS) contains more detailed occupational safety information. To report adverse effects, obtain an MSDS or for assistance, contact Merial at 1-888-637-4251. **WARNING! FLAMMABLE!** 

#### skin contact occurs, wash immediately with soap and water. If accidental eye exposure occurs, flush eyes immediately with water and seek medical attention.

- Close container tightly when not in use.

# RESIDUE WARNING: Cattle must not be treated within 48 days of slaughter for human consumption. Because a

KEEP AWAY FROM HEAT, SPARKS, OPEN FLAME, AND OTHER SOURCES OF IGNITION.

not been established for this product in pre-ruminating calves. Do not use in calves to be processed for veal **PRECAUTIONS** - Store away from excessive heat (104°F/40°C) and protect from light. - Use only in well-ventilated areas or outdoors.

withdrawal time in milk has not been established, do not use in female dairy cattle of breeding age. A withdrawal period has

This product should not be applied to self or others because it may be irritating to human skin and eyes and absorbed through the skin. To minimize accidental skin contact, the user should wear a long-sleeved shirt and rubber gloves. If accidental

- Do not use when rain is expected to wet cattle within six hours after treatment. - This product is for application to skin surface only. Do not give orally or parenterally.

- Cloudiness in the formulation may occur when IVOMEC® (ivermectin) Pour-On is stored at temperatures below 32°F.

- Antiparasitic activity of ivermectin will be impaired if the formulation is applied to areas of the skin with mange scabs or lesions, or with dermatoses or adherent materials, e.g., caked mud or manure. - Ivermectin has been associated with adverse reactions in sensitive dogs; therefore, IVOMEC Pour-On is not recommended

for use in species other than cattle. - Restricted Drug (California) - Use only as directed.

- Cattle should not be treated when hair or hide is wet since reduced efficacy may be experienced.

Allowing to warm at room temperature will restore the normal appearance without affecting efficacy.

**When to Treat Cattle with Grubs** IVOMEC Pour-On effectively controls all stages of cattle grubs. However, proper timing of treatment is important. For the most effective results, cattle should be treated as soon as possible after the end of the heel fly (warble fly) season. While this is not peculiar to ivermectin, destruction of *Hypoderma* larvae (cattle grubs) at the period when these grubs are in vital areas

may cause undesirable host-parasite reactions. Killing Hypoderma lineatum when it is in the esophageal tissues may cause bloat; killing H. bovis when it is in the vertebral canal may cause staggering or paralysis. Cattle should be treated either before

or after these stages of grub development. Cattle treated with IVOMEC Pour-On at the end of the fly season may be re-treated with IVOMEC during the winter

#### without danger of grub-related reactions. For further information and advice on a planned parasite control program, consult your veterinarian. **Environmental Safety**

Studies indicate that when ivermectin comes in contact with the soil it readily and tightly binds to the soil and becomes inactive over time. Free ivermectin may adversely affect fish or certain aquatic organisms. Do not permit cattle to enter lakes, streams or ponds for at least six hours after treatment. Do not contaminate water by direct application or by the improper disposal of drug containers. Dispose of containers in an approved landfill or by incineration. As with other avermectins, ivermectin is excreted in the dung of treated animals and can inhibit the reproduction and growth

effects are species and life-cycle specific. When used according to label directions, the product is not expected to have an adverse impact on populations of dung-dependent insects. **HOW SUPPLIED** IVOMEC Pour-On is available in an 8.5 fl oz/250 mL bottle or 33.8 fl oz/1 L bottle with a squeeze-measure-pour system, or in

of pest and beneficial insects that use dung as a source of food and for reproduction. The magnitude and duration of such

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an 84.5 fl oz/2.5 L or 169 oz/5 L collapsible pack, or 676 fl oz/20 L container intended for use with appropriate automatic dosing equipment. **IVOMEC** and Cattle Head Logo are registered trademarks of Merial Limited.