



Lot No.

Expiration Date

(DICHLORVOS)**
SPECIFIC SPECTRUM
EQUINE ANTHELMINTIC

ACTIVE INGREDIENT

**Dichlorvos (2,2-dichlorovinyl dimethyl phosphate) 31.0%

INERT INGREDIENTS 69.0%

Each syringe contains .39 oz. (11.1g) dichlorvos in an inert base. : TOTAL 100.0%

WARNING: KEEP OUT OF REACH OF CHILDREN
STORE UNDER REFRIGERATION

CAUTION: VETERINARY USE ONLY. U.S. Federal law restricts this drug to use



**(DICHLORVOS)[®]
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in an inert base.

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by or on the order of a licensed veterinarian.**



Lot No.

Expiration Date

ROQUINOL

(DICHLORVOS)**

SPECIFIC SPECTRUM EQUINE ANTHELMINTIC

ACTIVE INGREDIENT

**Dichlorvos (2,2-dichlorovinyl dimethyl phosphate) 31.0%

INERT INGREDIENTS 69.0%

Each syringe contains .39 oz. (11.1g) dichlorvos in an inert base. TOTAL 100.0%

DOSAGE: Consult package insert for complete use directions and contraindications. The syringe plunger has 24 indicated stops. Each stop will deliver the required amount of formulation to treat 50 lbs. of body weight at recommended dosage.

WARNING: KEEP OUT OF THE REACH OF CHILDREN. For oral use only. Avoid prolonged contact with the skin. Wash hands after using. Do not use in horses intended for food purposes. Dichlorvos is a cholinesterase inhibitor. Do not use this product in animals simultaneously or within a few days before or after treatment with or exposure to cholinesterase-inhibiting drugs, pesticides or chemicals. Do not administer in conjunction with or within one week of administration of muscle-relaxant drugs, phenothiazine-derived tranquilizers, or central nervous system depressants. Atropine is the animal antidote. Atropine and 2-PAM are the human antidotes. **DO NOT REUSE CONTAINER.** Flush with warm water and a detergent, then render syringe inoperable prior to discarding. **STORE UNDER REFRIGERATION.**

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E.P.A. REG. NO. 201-329 AA

NET WT. 1.26 oz. (35.8g)

SHELL CHEMICAL COMPANY, A Division of Shell Oil Company, AGRICULTURAL DIVISION, SAN RAMON, CA. 94583

*Shell Trademark Shell Patent No. 2,956,073 and Patent Pending Made in U.S.A. ACL-1619 1-73

ACD-256A 1-73
 Shell Patent No. 2,956,073 and Patent Pending
 Made in U.S.A.
 SHELL CHEMICAL COMPANY
 A Division of Shell Oil Company
 AGRICULTURAL DIVISION
 SAN RAMON, CALIF. U.S.A. 94583

WARNING:

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 STORE UNDER REFRIGERATION

ACTIVE INGREDIENT		
**Dichlorvos, 2,2-dichlorovinyl dimethyl phosphate		31.0%
INERT INGREDIENTS		69.0%
Each syringe contains 39 oz. 11.1 g. dichlorvos in an inert base	TOTAL	100.0%

E.P.A. REG. NO. 201-329 AA
WARNING: KEEP OUT OF THE REACH OF CHILDREN.

See top panel for other precautions.
CAUTION VETERINARY USE ONLY. U.S. Federal law restricts this drug to use by or on the order of a licensed veterinarian.
 *Shell Trademark
ONE SYRINGE, NET WT. 1.26 oz. (35.8 g)

INDICATIONS: EQUIGEL* (dichlorvos) is an effective anthelmintic recommended specifically for the removal and control of first, second, and third-instar bots (*Gastrophilus intestinalis* and *G. nasalis*), sexually mature and sexually immature (4th stage) ascarids (*Parascaris equorum*) in horses and foals.
CONTRAINDICATIONS: Horses severely debilitated or suffering from diarrhea or severe constipation, infectious disease, toxemia, or colic should not be treated. Do not administer to horses affected with chronic alveolar emphysema (heaves) or other respiratory conditions.



(DICHLORVOS)
 SPECIFIC SPECTRUM EQUINE ANTHELMINTIC**

ACD-256A 1-73
 Shell Patent No. 2,956,073 and Patent Pending
 Made in U.S.A.

SHELL CHEMICAL COMPANY
 A Division of Shell Oil Company
 AGRICULTURAL DIVISION
 SAN RAMON, CA., U.S.A. 94583

WARNING
 For oral use only. Avoid prolonged contact with the skin. Wash hands after using. Do not use in horses intended for food purposes. Dichlorvos is a cholinesterase inhibitor. Do not use this product in animals simultaneously or within a few days before or after treatment with or exposure to cholinesterase-inhibiting drugs, pesticides, or chemicals. Do not administer in conjunction with or within one week of administration of muscle relaxant drugs, phenothiazine-derived tranquilizers or central nervous system depressants. Atropine is the animal antidote. Atropine and 2-RAM are the human antidotes.

STORE UNDER REFRIGERATION.

ACTIVE INGREDIENT		
1-Dichlorvos (2,2-dichlorovinyl) dimethyl phosphate		31.0%
INERT INGREDIENTS		69.0%
Each syringe contains 39 oz. (110 g.) dichlorvos in an inert base	TOTAL	100.0%

E.P.A. REG. NO. 201-329 AA
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 See top panel for other precautions.

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*Shell Trademark **ONE SYRINGE, NET WT. 1.26 oz. (35.8 g)**

INDICATIONS: EQUIGEL® (dichlorvos) is an effective anthelmintic recommended specifically for the removal and control of first, second, and third-instar bots (*Gastrophilus intestinalis* and *G. nasalis*); sexually mature and sexually immature (4th stage) ascarids (*Parascaris equorum*) in horses and foals.

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**(DICHLORVOS)
 SPECIFIC SPECTRUM EQUINE ANTHELMINTIC**

Made in U.S.A.

Shell Patent No. 2,956,073 and Patent Pending

ACD-256A 1-73

SHELL CHEMICAL COMPANY
A Division of Shell Oil Company
AGRICULTURAL DIVISION
SAN RAMON, CA., U.S.A. 94583

WARNING

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STORE UNDER REFRIGERATION.

ACTIVE INGREDIENT

**Dichlorvos (2,2-dichlorovinyl dimethyl phosphate) 81.0%

INERT INGREDIENTS

Each syringe contains .39 oz. (11.1 g) dichlorvos in an inert base. 19.0%

TOTAL 100.0%

E.P.A. REG. NO. 201-329 AA

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*Shell Trademark

ONE SYRINGE, NET WT. 1.26 oz. (35.8 g)

INDICATIONS: EQUIGEL® (dichlorvos) is an effective anthelmintic recommended specifically for the removal and control of first, second, and third-instar bots (*Gastrophilus intestinalis* and *G. pasalis*), sexually mature and sexually immature (4th stage) ascarids (*Parascaris equorum*) in horses and foals.

CONTRAINDICATIONS: Horses severely debilitated or suffering from diarrhea or severe constipation, infectious disease, toxemia, or colic should not be treated. Do not administer to horses affected with chronic alveolar emphysema (heaves) or other respiratory conditions.

(*Gastrophilus intestinalis* and *G. nasalis*, sexually mature and sexually immature (4th stage) ascarids (*Parascaris equorum*) in horses and foals.

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PRECAUTIONS: Dichlorvos may produce toxicity when large amounts are absorbed through the skin. The gel is well contained in the plastic syringe and is to be administered directly into the horse's mouth; thus, any dermal hazard is minimized. Individuals handling the drug should avoid contact with the skin. However, large quantities of EQUIGEL* should be wiped from the skin immediately, then the remainder may be removed from the skin by washing with soap and water.

ADVERSE REACTIONS: In clinical trials with EQUIGEL* the incidence of side effects was minimal. The most common side effect was a softening of the stools that occurred in 4.2% of the horses within an hour after dosing. This, however, was of a short duration with the stools becoming formed in 1 to 24 hours without further treatment.

When a side effect occurs its onset is rapid, occurring within 5 to 15 minutes of dosage, and is of very short duration. Most side effects are alleviated without treatment within 1 to 2 hours. All side effects respond to antidotal treatment with atropine at 0.5 mg per pound of body weight administered intramuscularly. The severity and duration of side effects are directly related to dose. Doses greater than recommended may be expected to increase the frequency of occurrence of side effects and their severity.

Occasionally a horse will react to the drug by raising his head and curling his upper lip. This side effect will persist for varying periods of time up to ten minutes. There is no irritation in the mouth, the animal is objecting to the odor of the drug and the effect will subside without treatment. Other side effects rarely reported to have occurred in decreasing order are depression, colic, salivation, incoordination, weakness, and muscle tremors.

The liver is a primary site of detoxification of dichlorvos in the body. An impairment of this organ's function by toxicants, parasites, infectious or neoplastic disease lowers the tolerance of the animal to dichlorvos. Studies in healthy horses treated with dichlorvos have shown that the drug does not interfere with liver function when 10 times the therapeutic dose is administered orally. Sulfobromophthalein (BSP) clearance rate, serum glutamic pyruvic transaminase (SGPT) and serum glutamic oxalacetic transaminase (SGOT) showed no significant differences between pre- and post-treatment values.

USE DIRECTIONS:

For the removal of bots and ascarids: Administer 20 mg dichlorvos/kg body weight

of the treated animals lost their ability to stand and suffered clonic convulsions. The signs appeared within three minutes of dosing and persisted for up to 45 minutes. Complete recovery occurred in 75% of the animals by 1 hour and in all animals by 3 hours after dosing. No drug-induced effects were apparent following recovery during a 28-day observation period.

At 400 mg/kg, or 20 times the therapeutic dose, the onset of symptoms was again rapid, with the full-blown syndrome previously described accompanied with convulsions in 75% of the animals. Again, the onset of symptoms was rapid, the duration short, and complete recovery within hours without antidotal treatment.

Atropine successfully prevented progression of signs and effected a complete

For the control of bots and ascarids: Repeat 20 mg/kg dosage every 21-28 days.
For the control of bots only: Repeat with a 10 mg/kg dosage every 21 to 28 days during bot fly season.

DOSAGE TABLE

Dose	Use One Stop on Plunger (1.49 gm. gel) for each:
20 mg/kg	50 pounds of body weight
10 mg/kg	100 pounds of body weight

USE EDGE OF DIAL CLOSEST TO BARREL TO MARK DOSE

ATTENTION: EQUIGEL* (dichlorvos) at recommended dosages does not effectively remove parasites of the strongyle group and it is not intended to be used for strongyle control (see ACTIONS). Ascarid infections in foals do not become patent until 6-10 weeks of age, therefore, diagnosing foals younger than this is difficult. In addition, studies to evaluate safety and efficacy of EQUIGEL* in foals less than five weeks of age have not been done.

METHOD OF ADMINISTRATION: EQUIGEL* is designed to be administered directly onto the horse's tongue from the syringe. **Preconditioning or fasting of nursing foals is not necessary or recommended. For adult animals and for weaned foals it is advisable to withhold feed overnight and for 4 to 6 hours after dosing.**

The method of administration which has proven most successful in clinical trials is outlined as follows:

1. Remove the cap from the end of the syringe.
2. Place the dial of the plunger on the zero mark.
3. Advance the plunger forward, thus "zeroing" the syringe.
4. Determine the weight of the horse and dial the proper dose on the plunger, i.e., to dose a foal weighing 200 lbs. (at 20 mg/kg) the dial on the syringe plunger is set at 4 stops (consult Dosage Table).
5. Introduce the syringe tip into the horse's mouth between the lips, at the point of the interdental space.
6. Direct the syringe tip upward and slightly posterior and quickly deposit the drug on the body of the tongue.
7. Place a hand under the horse's mandible and raise the head.

OVERDOSAGE: Adults and five-to-eight-week-old foals were given graded doses of from 2 to 20 times the recommended therapeutic dose without causing mortality. At 40 mg/kg (2 times the therapeutic dose) no drug-related effects were noted. At 50 mg/kg, 2.5 times the therapeutic dose, one-half of the animals tested showed no ill effects. The effects shown by the other animals at this dosage were limited to mild ataxia and muscle fasciculations confined to the hind limbs. One-half of the animals reacting showed slight salivation. These signs occurred at about 15 minutes and had completely abated by one hour.

At 100 mg/kg, 5 times the therapeutic dose, all treated animals showed drug effects by 5-12 minutes after dosing. Muscle tremors and/or fasciculations were observed in all foals. In addition, loose stools and frequent defecation progressing toward diarrhea were also observed in these animals. Ataxia, with a reluctance to move characterized by a stiff-legged wide hind-limb stance, was common. All animals recovered from all observable effects within 45 minutes to one hour after onset without antidotal treatment.

At 200 mg/kg, or ten times the therapeutic dose, all animals were affected with muscle tremors, fasciculations, salivation, diarrhea and severe ataxia. Fifty percent



EQUIGEL*

**(DICHLORVOS)
SPECIFIC SPECTRUM EQUINE ANTHELMINTIC**