

**EUTHASOL- pentobarbital sodium and phenytoin sodium solution**  
**Virbac AH, Inc.**

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**EUTHASOL® (EUTHANASIA SOLUTION)**

**PRODUCT INFORMATION**

**CIII**

**FOR DOGS ONLY**

**CAUTION**

Federal law restricts this drug to use by or on the order of a licensed veterinarian.

**DESCRIPTION**

A non-sterile solution containing pentobarbital sodium and phenytoin sodium as the active ingredients. Rhodamine B, a bluish-red fluorescent dye, is included in the formulation to help distinguish it from parenteral drugs intended for therapeutic use. Although the solution is not sterile, benzyl alcohol, a bacteriostat, is included to retard the growth of microorganisms.

Each mL contains: Active ingredients: 390 mg pentobarbital sodium (barbituric acid derivative), 50 mg phenytoin sodium; Inactive ingredients: 10% ethyl alcohol, 18% propylene glycol, 0.003688 mg rhodamine B, 2% benzyl alcohol (preservative), water for injection q.s. Sodium hydroxide and/or hydrochloric acid may be added to adjust pH.

**ACTIONS**

EUTHASOL® Euthanasia Solution (pentobarbital sodium and phenytoin sodium) contains two active ingredients which are chemically compatible but pharmacologically different. Each ingredient acts in such a manner so as to cause humane, painless, and rapid euthanasia. Euthanasia is due to cerebral death in conjunction with respiratory arrest and circulatory collapse. Cerebral death occurs prior to cessation of cardiac activity.

When administered intravenously, pentobarbital sodium produces rapid anesthetic action. There is a smooth and rapid onset of unconsciousness. At the lethal dose, there is depression of vital medullary respiratory and vasomotor centers.

When administered intravenously, phenytoin sodium produces toxic signs of cardiovascular collapse and/or central nervous system depression. Hypotension occurs when the drug is administered rapidly.

**Pharmacodynamic Activity**

The sequence of events leading to humane, painless, and rapid euthanasia following intravenous injection of EUTHASOL Euthanasia Solution is similar to that following intravenous injection of pentobarbital sodium, or other barbituric acid derivatives. Within seconds, unconsciousness is induced with simultaneous collapse of the dog. This stage rapidly progresses to deep anesthesia with concomitant reduction in the blood pressure. A few seconds later, breathing stops, due to depression of the medullary respiratory center; encephalographic activity becomes isoelectric, indicating cerebral death; and then cardiac activity ceases.

Phenytoin sodium exerts its effect during the deep anesthesia stage caused by the pentobarbital sodium. This ingredient, due to its cardiotoxic

properties, hastens the stoppage of electrical activity in the heart.

## **INDICATIONS**

For use in dogs for humane, painless, and rapid euthanasia.

## **WARNING**

**For canine euthanasia only. Must not be used for therapeutic purposes. Do not use in animals intended for food.**

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**ENVIRONMENTAL HAZARD:** This product is toxic to wildlife. Birds and mammals feeding on treated animals may be killed. Euthanized animals must be properly disposed of by deep burial, incineration, or other method in compliance with state and local laws, to prevent consumption of carcass material by scavenging wildlife.

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## **HUMAN WARNING**

**Caution should be exercised to avoid contact of the drug with open wounds or accidental self-inflicted injections. Keep out of reach of children. If eye contact, flush with water and seek medical advice/attention.**

## **PRECAUTIONS**

Euthanasia may sometimes be delayed in dogs with severe cardiac or circulatory deficiencies. This may be explained by the impaired movement of the drug to its site of action. An occasional dog may elicit reflex responses manifested by motor movement; however, an unconscious animal does not experience pain, because the cerebral cortex is not functioning. When restraint may cause the dog pain, injury, or anxiety, or danger to the person making the injection, prior use of tranquilizing or immobilizing drugs may be necessary.

## **Dosage and Administration:**

**Dosage:** Dogs, 1 mL for each 10 pounds of body weight.

**Administration:** Intravenous injection is preferred. Intracardiac injection may be made when intravenous injection is impractical, as in a very small dog, or in a comatose dog with impaired vascular functions. Good injection skill is necessary for intracardiac injection. The calculated dose should be given in a single bolus injection. For intravenous injection, a needle of sufficient gauge to ensure intravenous placement of the entire dose should be used. The use of a Luer-Lok® syringe is recommended to prevent accidental exposure due to needle/syringe separation.

## **HOW SUPPLIED**

EUTHASOL Euthanasia Solution is available in 100 mL multiple dose vials.

## **STORAGE**

Store at controlled room temperature of between 20° and 25°C (68° and 77°F), with excursions permitted between 15° to 30°C (59° to 86°F).

Manufactured by a nonsterilizing process.

Manufactured for Virbac AH, Inc., PO Box 162059, Fort Worth, TX 76161

For Technical Service, contact (800) 338-3659.

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## **PRINCIPAL DISPLAY PANEL - CARTON**

FRONT and BACK PANELS:

Caution: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

ANADA #200-071, Approved by FDA

100 mL

CIII

LEFT PANEL:

Non-Sterile Solution

### **Multiple Dose Vial**

**Warning:** For canine euthanasia only.

Must not be used for therapeutic purposes.

Do not use in animals intended for food.

**ENVIRONMENTAL HAZARD:** This product is toxic to wildlife. Birds and mammals feeding on treated animals may be killed. Euthanized animals must be properly disposed of by deep burial, incineration, or other method in compliance with state and local laws, to prevent consumption of carcass material by scavenging wildlife.

**Human Warning:** Caution should be exercised to avoid contact of the drug with open wounds or accidental self-inflicted injections. Keep out of reach of children. If eye contact, flush with water and seek medical advice/attention.

Store at controlled room temperature 20° to 25°C (68° to 77°F), with excursions permitted between 15° to 30°C (59° to 86° F).

RIGHT PANEL:

**Each mL contains:** *Active ingredients:* 390 mg pentobarbital sodium (barbituric acid derivative), 50 mg phenytoin sodium. *Inactive ingredients:* 10% ethyl alcohol, 18% propylene glycol, 0.003688 mg rhodamine B, 2% benzyl alcohol (preservative), water for injection q.s. Sodium hydroxide and/or hydrochloric acid may be added to adjust pH.

**For Intravenous or Intracardiac Use.**

Refer to insert for dosage and other information. See warnings on left panel.

ANADA #200-071, Approved by FDA

Manufactured for:

Virbac AH, Inc., PO Box 162059

Fort Worth, TX 76161



## EUTHASOL

pentobarbital sodium and phenytoin sodium solution

### Product Information

|                         |                          |                    |               |
|-------------------------|--------------------------|--------------------|---------------|
| Product Type            | PRESCRIPTION ANIMAL DRUG | Item Code (Source) | NDC:51311-050 |
| Route of Administration | INTRAVENOUS              | DEA Schedule       | CIII          |

### Active Ingredient/Active Moiety

| Ingredient Name   | Basis of Strength    | Strength       |
|---|----------------------|----------------|
| pentobarbital sodium (UNII: NJJ0475N0S) (pentobarbital - UNII:I4744080IR) | pentobarbital sodium | 390 mg in 1 mL |
| phenytoin sodium (UNII: 4182431BJH) (phenytoin - UNII:6158TKW0C5)         | phenytoin sodium     | 50 mg in 1 mL  |

### Product Characteristics

|          |                  |              |  |
|----------|------------------|--------------|--|
| Color    | RED (bluish-red) | Score        |  |
| Shape    |                  | Size         |  |
| Flavor   |                  | Imprint Code |  |
| Contains |                  |              |  |

### Packaging

| # | Item Code        | Package Description          | Marketing Start Date | Marketing End Date |
|---|------------------|------------------------------|----------------------|--------------------|
| 1 | NDC:51311-050-01 | 100 mL in 1 VIAL, MULTI-DOSE |                      |                    |

## Marketing Information

| Marketing Category | Application Number or Monograph Citation | Marketing Start Date | Marketing End Date |
|--------------------|--|----------------------|--------------------|
| ANADA              | ANADA200071                              | 05/05/2004           |                    |

**Labeler** - Virbac AH, Inc. (131568396)

**Registrant** - Virbac AH, Inc. (131568396)

Revised: 11/2019

Virbac AH, Inc.