



MATERIAL SAFETY DATA SHEET
EUTHASOL® Euthanasia Solution
Product Code: 710101

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATIONS AND OF THE COMPANY UNDERTAKING

Product Name EUTHASOL® Euthanasia Solution
Product Description For euthanasia of dogs
Manufacturer/Supplier Virbac AH, Inc.
Address P.O. Box 162059
Fort Worth, Texas 76161
Phone Number (800) 338-3659
Chemtrec Number (24 hour) (800) 424-9300
Other Emergency Numbers: Poison Control Center: 1-800-222-1222
MSDS Revision Date: March 31, 2012
Supersedes MSDS Dated: March 19, 2009

Material Safety Data Sheet in compliance with OSHA's Hazcom Standard (29 CFR 1910.1200)

2. HAZARDS IDENTIFICATION

Emergency Overview
DANGER!

Harmful if ingested.
Poison: Keep out of reach of children.
Avoid contact with eyes, skin or clothing.

Routes of Entry

Eye contact - Skin contact - Ingestion - Inhalation

Carcinogenic Status

Contains an ingredient considered carcinogenic by NTP.

Target Organs

Eye - Skin - Respiratory Tract - Gastrointestinal Tract - Cardiovascular - Central Nervous System –
Liver - Reproductive - Heart

Health Effects - Eyes

Contact may cause severe eye irritation.

Health Effects - Skin

Contact with skin may cause irritation.

Health Effects - Ingestion

Ingestion of this material causes adverse gastrointestinal, cardiovascular, liver, central nervous system and reproductive effects. Symptoms include drowsiness, headache, mental depression, dizziness, confusion, lack of muscular control, impaired judgement and sedation. In cases of severe overdoses, this material can cause respiratory and cardiovascular suppression, coma and death due to respiratory and circulatory failure. Ingestion of 2 to 3 grams of pentobarbital sodium can be fatal.

Health Effects - Inhalation

Inhalation may cause irritation of respiratory tract.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	CAS Number	Concentration
Sodium Pentobarbital	57-33-0	31% (390mg/ml)
Phenytoin Sodium	630-93-3	4.72% (50mg/ml)



3. COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	CAS Number	Concentration
Ethyl Alcohol	64-17-5	1 - 10%
Benzyl Alcohol	100-51-6	1 – 10%
Rhodamine B	81-88-9	0.1- <1.0%

4. FIRST AID MEASURES

Eyes

Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention.

Skin

Wash skin thoroughly with soap and water. Obtain medical attention if redness or soreness persists.

Ingestion

Obtain medical attention immediately. Do not induce vomiting, unless directed to do so by a physician. Never give anything by mouth to an unconscious person.

Inhalation

Remove from exposure. If there is difficulty in breathing, give oxygen. Obtain medical attention immediately.

Advice to Physicians

The rate of onset of effects from this material is relatively short compared to other barbiturates. Treatment is mainly supportive.

Federal (U.S.A.) law restricts this drug to use by or on the order of a licensed veterinarian.

5. FIRE - FIGHTING MEASURES

Extinguishing Media

Use extinguishing media appropriate for surrounding materials.

Unusual Fire and Explosion Hazards

None known.

Protective Equipment for Fire-Fighting

Wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Wear appropriate protective clothing. Wipe up and transfer into suitable containers for recovery or disposal. Prevent the material from entering drains or watercourses. Notify authorities if spill has entered watercourse or sewer or has contaminated soil or vegetation. Dispose in accordance with federal, state and local regulations for DEA Schedule II controlled substances.

7. HANDLING AND STORAGE

Store between 59°F and 86°F (15°C and 30°C) in original containers. Keep out of sunlight. Keep container tightly closed in a cool dry place. Avoid contact with skin, eyes and clothing. Wash hands after dispensing and before eating, drinking or smoking. Keep away from children.

Special precautions to be taken when administering product: Wear gloves, gowns and protective eyewear. Do not recap used needles by hand. Place used disposable syringes and needles in puncture resistant containers for disposal.



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards

Exposure limits are listed below, if they exist.

Pentobarbital Sodium

ACGIH: TLV 10 mg/m³ TWA 8h

OSHA: PEL 5 mg/m³, respirable fraction

OSHA: PEL 15 mg/m³, total dust

Ethyl Alcohol

ACGIH: 1000 ppm 15-min STEL

OSHA: PEL 1000ppm (1900 mg/m³) 8h TWA

Phenytoin Sodium

None established.

Benzyl Alcohol

None

Engineering Control Measures

No specific measures necessary. Good general room ventilation is expected to be adequate to control airborne levels.

Respiratory Protection

Not required when used according to label directions.

Hand Protection

Rubber gloves

Eye Protection

Glasses or goggles

Body Protection

Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Color	Clear pink
Odor	No data available
pH	12 - 13
Specific Gravity	1.105
Boiling Range/Point (°C/F)	Not applicable
Melting Point (°C/F)	Not applicable
Flash Point (PMCC) (°C/F)	Not flammable
Explosion Limits (%)	No data available
Vapor Pressure	Not applicable
Density	No data available
Solubility in Water	Soluble
Vapor Density (Air = 1)	Not applicable

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Conditions to Avoid

Heat - contact with incompatible materials



10. STABILITY AND REACTIVITY

Materials to Avoid

Acids - oxidizing agents

Hazardous Polymerization

Will not occur.

Hazardous Decomposition Products

Oxides of carbon – organic compounds – toxic fumes of nitrogen oxides and sodium oxide - benzaldehyde

11. TOXICOLOGICAL INFORMATION

See product insert and/or packaging for additional information.

Acute Toxicity

Pentobarbital sodium: Oral LD50 (rat) 118 mg/kg

Ethyl Alcohol: Oral LD50 (rat) 7060 mg/kg

Phenytoin Sodium: Oral LD50 (rat) 1530 mg/kg

Benzyl Alcohol: Oral LD50 (rat) 1230 mg/kg

Dermal LD50 (rabbit) 2000 mg/kg

Inhalation LC50 (rat) 74.187 mg/l, 4h

Specific Target Organ Systemic Toxicity (single and repeat)

Pentobarbital sodium: Causes central nervous system effects similar to alcohol inebriation and adverse liver effects. Ingestion can cause respiratory and cardiovascular depression, coma and death. The potentially fatal dose is 2-3 grams.

Ethyl Alcohol: Chronic exposure can result in adverse liver, heart and central nervous system effects.

Benzyl alcohol: Causes adverse central nervous system effects.

Serious Eye damage/Eye Irritation

Ethyl Alcohol: Causes severe eye irritation.

Benzyl Alcohol: Causes moderate to severe eye irritation.

Skin Corrosion/Irritation

Ethyl alcohol: Mildly irritating.

Benzyl Alcohol: Causes mild to moderate skin irritation.

Respiratory or Skin Sensitization

No relevant studies identified.

Carcinogenicity

Phenytoin Sodium: Reasonably anticipated to be human carcinogen (NTP).

Germ Cell Mutagenicity

Pentobarbitone (free acid) was positive in multiple assays.

Benzyl Alcohol: Ames testing showed no mutagenic activity and mixed results both positive and negative were observed from other in-vitro genotoxicity assays. Benzyl alcohol showed no genotoxicity during in-vivo testing. The weight of the evidence indicates this material is not mutagenic or clastogenic.

Toxicity to Reproduction

Pentobarbital sodium: Based on animal studies on pentobarbitone (free acid) and studies for other barbiturates, pentobarbital sodium may affect the developing fetus. The placental transfer of this material in humans has been documented. Neonates from mothers exposed therapeutically to barbiturates have shown blood coagulation disorders and drug withdrawal symptoms. Doses of 600 – 750 mg administered intravenously to mothers before delivery caused moderate to severe neonatal depression in 40% of the infants with a delay in the establishment of normal respiration. Doses up to 300 mg showed no appreciable effects.

Ethyl Alcohol: Ingestion of ethyl alcohol during pregnancy has caused adverse reproductive effects (fetal alcohol syndrome) but only at doses that are maternally toxic.



12. ECOLOGICAL INFORMATION

This product is toxic to wildlife. Birds and mammals feeding on treated animals may be killed.

Mobility

No relevant studies identified.

Persistence/Degradability

No relevant studies identified.

Bio-accumulation

No relevant studies identified.

Ecotoxicity

Pentobarbital sodium: LC50 Fathead minnow 49mg/l (4 day)

Benzyl alcohol : Bluegill sunfish LC50:10 mg/l 96hr

Daphnia Magna EC50: 15.2 mg/l 48 hr

Chlorella pyrenoidosa (Algae) EC50:95 mg/l 3hr

13. DISPOSAL CONSIDERATIONS

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.

Waste Disposal: Dispose of in a manner approved for US DEA Schedule II controlled substances.

Empty Container Disposal: Empty containers must be triple rinsed prior to disposal and may be disposed of according to local regulations.

14. TRANSPORT INFORMATION

Contact supplier for transport information.

15. REGULATORY INFORMATION

US REGULATIONS (Federal, State) and INTERNATIONAL CHEMICAL REGISTRATION LAWS

TSCA Listing

This product contains ingredients that are exempt from listing on the EPA Toxic Substance Control Act Chemical Inventory.

DSL (Canadian) Listing

This product contains ingredients that have been verified for listing on the Domestic Substance List (DSL) or the Non-Domestic Substance List (NDSL).

WHMIS Classification

D1B.D2A

This product was classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations and the MSDS contains all the information required by these regulations.

MA Right To Know Law

This product contains the following chemicals on the Massachusetts Right to Know Law: Ethyl alcohol – Benzyl alcohol

PA Right To Know Law

This product contains the following chemicals on the Pennsylvania Hazardous Substance List: Ethyl alcohol - Rhodamine B

NJ Right To Know Law

This product contains the following chemicals on the New Jersey Workplace Hazardous Substance List: Pentobarbital Sodium - Ethyl alcohol - Benzyl alcohol



15. REGULATORY INFORMATION

California Proposition 65

This product contains the following materials which the State of California has found to cause cancer, birth defects or other reproductive harm: Pentobarbital Sodium – Phenytoin Sodium – Rhodamine B

SARA Title III Sect. 311/312 Categorization

Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard

SARA Title III Sect. 313

This product contains the following chemicals that are listed in Section 313 at or above de minimis concentrations: Pentobarbital Sodium

16. OTHER INFORMATION

NFPA Ratings

NFPA Code for Flammability - 1

NFPA Code for Health - 2

NFPA Code for Reactivity - 0

NFPA Code for Special Hazards – 0

HMIS Ratings

HMIS Code for Flammability - 1

HMIS Code for Health - 3*

HMIS Code for Reactivity - 0

HMIS Code for Personal Protection - See Section 8

(* - Chronic health hazard)

Abbreviations

ACGIH: American Conference of Governmental Industrial Hygienists

BOD: Biological Oxygen Demand

CAS#: Chemical Abstracts Service Number

FIFRA: Federal Insecticide, Fungicide and Rodenticide Act

IARC: International Agency for Research on Cancer

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

N/A: Denotes no applicable information found or available

NTP: National Toxicology Program

OSHA: Occupational Safety and Health Administration

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit

TLV: Threshold Limit Value

TSCA: Toxic Substance Control Act

For further information call: (800) 338-3650

Prepared By: EnviroNet LLC

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