
MATERIAL SAFETY DATA SHEET

HELENA LABORATORIES
 1530 Lindbergh Dr./P.O. Box 752
 Beaumont, TX 77704-0752
 USA Toll Free 800-231-5663

DATE PREPARED: 4/5/2010
 REVISION: 3

1. IDENTIFICATION:

PRODUCT NAME: TITAN GEL LD KIT PART 1 OF 2

PRODUCT NO.: 3043

2. INGREDIENTS (THE ABOVE KIT CONTAINS THE FOLLOWING ITEMS):

PRODUCT NUMBER	PRODUCT IDENTIFICATION (LABEL NAME)	COMMENTS
500247	TITAN GEL LD PLATE	NON-HAZARDOUS
500611	TITAN GEL LD BUFFER	
HAZARDOUS INGREDIENT	CAS #	%
SODIUM BARBITAL	144-02-5	21.7
		MSDS ATTACHED

ATTACHED IS THE MSDS FOR THE ABOVE NAMED HAZARDOUS INGREDIENT.

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DATE PREPARED: 4/5/2010
REVISION: 2

1. IDENTIFICATION:

PRODUCT NAME: TITAN GEL LD BUFFER

PRODUCT NO.: 500611

2. INGREDIENTS (THE ABOVE KIT CONTAINS THE FOLLOWING ITEMS):

HAZARDOUS INGREDIENT	CAS #	%	
SODIUM BARBITAL	144-02-5	21.7	MSDS ATTACHED

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DATE PREPARED: 3/22/2010
REVISION: 6

1. IDENTIFICATION:

NAME: BARBITAL SODIUM

SYNONYMS: SODIUM-5,5-DIETHYLBARBITURATE

MOLECULAR FORMULA: C8H11N2NAO3

MOLECULAR WEIGHT: 206.2

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2. CHEMICAL COMPOSITION:

Table with 5 columns: CHEMICAL NAME/COMMON NAME, CAS #, %, EXPOSURE LIMITS (OSHA PEL, ACGIH TLV). Row 1: BARBITAL SODIUM, 144-02-5, 100, NIF, NIF.

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NA = Not Applicable

NE = Not Established

NL = Not Listed

NIF = No Information Found

3. HAZARD IDENTIFICATION:

EMERGENCY OVERVIEW:

PRIMARY ROUTE(S) OF ENTRY:

INHALATION? X SKIN? INGESTION?

ACUTE EFFECT OF OVEREXPOSURE: BARBITAL SODIUM IS A SLEEPING DRUG. THE LETHAL DOSE FOR HUMAN IS 3-6 g.

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4. FIRST AID MEASURES:

EYES: IN CASE OF CONTACT, FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. CALL A PHYSICIAN.

SKIN: IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER FOR 15 MINUTES. CALL A PHYSICIAN.

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

INGESTION: MAKE VICTIM DRINK PLENTY OF WATER, INDUCE VOMITING. CALL A PHYSICIAN.

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5. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT (METHOD USED): NA

FLAMMABLE LIMITS: LEL NE UEL NE

EXTINGUISHING MEDIA: FOAM, WATER SPRAY, CARBON DIOXIDE, DRY CHEMICAL

SPECIAL FIRE FIGHTING PROCEDURES: MAY PRODUCE TOXIC FUMES OF CARBON MONOXIDE, CARBON DIOXIDE, NITROGEN OXIDES. PREVENT FIRE-FIGHTING WATER FROM ENTERING SURFACE WATER OR GROUDWATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS: NA

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6. SPILL OR LEAK PROCEDURES:

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, BOOTS AND HEAVY GLOVES. SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL. AVOID RAISING DUST. VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICK UP IS COMPLETE.

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7. HANDLING AND STORAGE:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: STORE AT 15°C TO 25°C. TIGHTLY CLOSED. DRY.

8. EXPOSURE CONTROL/PERSONAL PROTECTION:

RESPIRATORY PROTECTION (SPECIFY TYPE): DUST RESPIRATOR NIOSH APPROVED

VENTILATION: LOCAL EXHAUST: X MECHANICAL: OTHER:

PROTECTIVE GLOVES: PROTECTIVE GLOVES

EYE PROTECTION: SAFETY GLASSES OR GOGGLES

OTHER PROTECTIVE EQUIPMENT: WEAR SUITABLE PROTECTIVE CLOTHING. TAKE OFF CONTAMINATED CLOTHES IMMEDIATELY.

9. PHYSICAL DATA:

BOILING POINT: NA SPECIFIC GRAVITY (H2O = 1): NA pH: 10-11

VAPOR PRESSURE (MM HG.): NA MELTING POINT: NOT AVAILABLE

VAPOR DENSITY (AIR = 1): NA

SOLUBILITY IN WATER: SOLUBLE APPEARANCE AND ODOR: ODORLESS CRYSTALLINE POWDER

10. STABILITY AND REACTIVITY:

STABILITY: UNSTABLE: STABLE: X

INCOMPATIBILITY (MATERIALS TO AVOID): ACIDS, OXIDIZING AGENTS

HAZARDOUS DECOMPOSITION OF BY-PRODUCTS: IN CASE OF FIRE: CARBON DIOXIDE, CARBON MONOXIDE, NITROGEN OXIDE

HAZARDOUS POLYMERIZATION: MAY OCCUR: WILL NOT OCCUR: X

11. TOXICOLOGICAL INFORMATION:

BARBITAL IS A SLEEPING DRUG. THE LETHAL DOSE FOR HUMAN IS 3-6 g.

- LD50 (ORAL, MUS) 600 mg/Kg
LD50 (SCU, RAT) 280 mg/Kg
LD0 (IPR, RAT) 300 mg/Kg
LDL0 (SCU, RBT) 300 mg/Kg

11. TOXICOLOGICAL INFORMATION (cont):

HUMAN EFFECTS:

SYMPTOMS FOR ACUTE POISONING ARE:

- INCREASING RESTLESSNESS
- LOW BLOOD PRESSURE
- RESPIRATORY SLOW DOWN
- FIRST DILATION, LATER CONTRACTION OF THE PUPILS
- SLOW PULSE WITH A HIGH PULSE RATE
- PATIENTS DO NOT REACT TO PAIN

CARCINOGENICITY: NTP? NA IARC? NA OSHA? NA

CHRONIC EFFECTS OF EXPOSURE: THE CHRONIC EFFECTS OF THE BARBITURATES ON NEUROLOGICAL AND PSYCHIC FUNCTIONS INCLUDE DISORIENTATION, MENTAL CONFUSION, ATAXIA, DIZZINESS, DEPRESSION, AND SKIN RASHES. CONTINUED USE OF BARBITURATES, EVEN IN THERAPEUTIC DOSES, MAY RESULT IN PSYCHIC OR PHYSICAL DEPENDENCE. ABRUPT WITHDRAWAL OF THE DRUG MAY RESULT IN A SEVERE ABSTINENCE SYNDROME WHICH INCLUDES GRAND MAL SEIZURES AND DELIRIUM.

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12. ECOLOGICAL INFORMATION: DO NOT LET ATTAIN IN GROUND WATER, SEWERAGE SYSTEM OR SOIL. THE COMPOUND IS COMPLETELY DEGRADATED.

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13. DISPOSAL CONSIDERATIONS: SODIUM BARBITAL IS A RESTRICTED CHEMICAL. OBSERVE ALL FEDERAL, STATE AND LOCAL REGULATIONS.

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14. TRANSPORTATION INFORMATION: NOT CLASSIFIED AS DANGEROUS GOODS

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15. REGULATORY INFORMATION: SUBJECT TO NARCOTICS REGULATIONS

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16. OTHER INFORMATION: NONE

The information herein is given in good faith but no warranty, expressed or implied, is made.