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MATERIAL SAFETY DATA SHEET

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

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DATE PREPARED: 9/13/2010  
 REVISION: 2

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1. IDENTIFICATION:

PRODUCT NAME: SPIFE 4000 SPLIT BETA SPE

PRODUCT NO.: 2310

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

PRODUCT NUMBER	PRODUCT IDENTIFICATION (LABEL NAME)	COMMENTS
552401	SPIFE 4000 SPLIT BETA SPE GEL	
	HAZARDOUS INGREDIENT	CAS # %
	SODIUM BARBITAL	144-02-5 1.3% MSDS ATTACHED
551151	ACID BLUE STAIN	
	HAZARDOUS INGREDIENT	CAS # %
	ACID BLUE	5850-35-1 100% NON-HAZARDOUS
551959	CITRIC ACID DESTAIN	
	HAZARDOUS INGREDIENT	CAS # %
	CITRIC ACID	77-92-9 100% MSDS ATTACHED
552425	STAIN/DESTAIN ADDITIVE	
	HAZARDOUS INGREDIENT	CAS # %
	PCD 3107	NA 100% MSDS ATTACHED

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ATTACHED IS THE MSDS FOR THE ABOVE NAMED HAZARDOUS INGREDIENT.

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DATE PREPARED: 3/22/2010
REVISION: 6

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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

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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.

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.

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

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.

7. HANDLING AND STORAGE:

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

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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.

LD <sub>50</sub> (ORAL, MUS)	600 mg/Kg
LD <sub>50</sub> (SCU, RAT)	280 mg/Kg
LD <sub>0</sub> (IPR, RAT)	300 mg/Kg
LDL0 (SCU, RBT)	300 mg/Kg

**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

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

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HELENA LABORATORIES
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DATE PREPARED: 5/13/2009
REVISION: 3

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1. IDENTIFICATION:

NAME: CITRIC ACID

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2. CHEMICAL COMPOSITION:

Table with 5 columns: CHEMICAL NAME/COMMON NAME, CAS #, %, EXPOSURE LIMITS (OSHA PEL, ACGIH TLV). Row 1: CITRIC ACID, 77-92-9, 100, NIF, NIF.

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NA = Not Applicable NE = Not Established
NL = Not Listed NIF = No Information Found

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3. HAZARD IDENTIFICATION:

EMERGENCY OVERVIEW

PRIMARY ROUTE(S) OF ENTRY:

INHALATION? X SKIN? X INGESTION? X

ACUTE EFFECT OF OVEREXPOSURE:

EYES: CAN CAUSE SEVERE EYE IRRITATION. SYMPTOMS INCLUDE STINGING, TEARING, REDNESS, AND SWELLING OF EYES. CAN INJURE EYE TISSUE.

SKIN: CAN CAUSE SKIN IRRITATION. SYMPTOMS MAY INCLUDE REDNESS AND BURNING OF SKIN AND OTHER SKIN DAMAGE.

INHALATION: BREATHING SMALL AMOUNTS OF THIS MATERIA DURING NORMAL HANDLING IS NOT LIKELY TO CAUSE HARMFUL EFFECTS. BREATHING LARGE AMOUNTS MAY BE HARMFUL.

INGESTION: SWALLOWING SMALL AMOUNTS OF THIS MATERIAL DURING NORMAL HANDLING IS NOT LIKELY TO CAUSE HARMFUL EFFECTS. SWALLOWING LARGE AMOUNTS MAY BE HARMFUL.

CHRONIC EFFECTS OF EXPOSURE: PROLONGED EXPOSURE MAY DAMAGE TOOTH ENAMEL.

4. FIRST AID MEASURES:

EYE CONTACT: FLUSH EYES GENTLY WITH WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS APART; SEEK IMMEDIATE MEDICAL ATTENTION.

SKIN CONTACT: REMOVE CONTAMINATED CLOTHING. WASH EXPOSED AREA WITH SOAP AND WATER. IF SYMPTOMS PERSISTS, SEEK MEDICAL ATTENTION. LAUNDER CLOTHING BEFORE REUSE.

INHALATION: IF SYMPTOMS DEVELOP, MOVE INDIVIDUAL AWAY FROM EXPOSURE AND INTO FRESH AIR. IF SYMPTOMS PERSISTS, SEEK MEDICAL ATTENTION. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. KEEP PERSON WARM AND QUIET; SEEK IMMEDIATE MEDICAL ATTENTION.

INGESTION: SEEK MEDICAL ATTENTION. IF INDIVIDUAL IS DROWSY OR UNCONSCIOUS, DO NOT GIVE ANYTHING BY MOUTH; PLACE INDIVIDUAL ON THE LEFT SIDE WITH THE HEAD DOWN. CONTACT A PHYSICIAN, MEDICAL FACILITY, OR POISON CONTROL CENTER FOR ADVICE ABOUT WHETHER TO INDUCE VOMITING. IF POSSIBLE, DO NOT LEAVE INDIVIDUAL UNATTENDED.

5. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT (METHOD USED): >100°C

FLAMMABLE LIMITS: NIF LEL UEL

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5. FIRE AND EXPLOSION HAZARD DATA (cont):

EXTINGUISHING MEDIA: WATER SPRAY, CARBON DIOXIDE (CO2), DRY CHEMICAL.

SPECIAL FIRE FIGHTING PROCEDURES: NO SPECIAL FIRE HAZARDS ARE KNOWN TO BE ASSOCIATED WITH THIS PRODUCT. WEAR FULL FIREFIGHTING TURN-OUT GEAR (FULL BUNKER GEAR), AND RESPIRATORY PROTECTION (SCBA).

UNUSUAL FIRE AND EXPLOSION HAZARDS: NIF

6. SPILL OR LEAK PROCEDURES:

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: SHOVEL MATERIALS INTO CONTAINERS. THOROUGHLY SWEEP AREA OF SPILL TO CLEAN UP ANY RESIDUAL MATERIAL. SWEEP UP MATERIAL FOR DISPOSAL OR RECOVERY.

7. HANDLING AND STORAGE:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPITED. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED. STORE IN A COOL, DRY, VENTILATED AREA, AWAY FROM INCOMPATIBLE SUBSTANCE.

OTHER PRECAUTIONS: NIF

8. EXPOSURE CONTROL/PERSONAL PROTECTION:

RESPIRATORY PROTECTION (SPECIFY TYPE): IF NEEDED, USE A NIOSH-APPROVED DUST RESPIRATOR. (ASK YOUR SAFETY REPRESENTATIVE.)

VENTILATION: LOCAL EXHAUST: X MECHANICAL: OTHER:

PROTECTIVE GLOVES: CHEMICAL RESISTANT GLOVES.

EYE PROTECTION: GOGGLES OR SAFETY GLASSES.

OTHER PROTECTIVE EQUIPMENT: WEAR NORMAL WORK CLOTHING COVERING ARMS AND LEGS.

9. PHYSICAL DATA:

BOILING POINT: NA SPECIFIC GRAVITY (H2O = 1): pH .2.2@10 g/L

VAPOR PRESSURE (MM HG.): 0 MELTING POINT: 153°C AUTOIGNITION TEMP: 1010°C

9. PHYSICAL DATA (cont):

VAPOR DENSITY (AIR = 1): NO DATA

SOLUBILITY IN WATER: SOLUBLE APPEARANCE AND ODOR: ODORLESS

WHITE CRYSTALLINE

10. STABILITY AND REACTIVITY:

STABILITY: UNSTABLE: STABLE: X

INCOMPATIBILITY (MATERIALS TO AVOID): STRONG ALKALIS

HAZARDOUS DECOMPOSITION OF BY-PRODUCTS: CARBON DIOXIDE AND CARBON MONOXIDE, HYDROCARBONS

HAZARDOUS POLYMERIZATION: MAY OCCUR: WILL NOT OCCUR: X

11. TOXICOLOGICAL INFORMATION:

LD50/LC50: LD50 MOUSE: 5040 MG/KG

REPRODUCTIVE TOXICITY: CITRIC ACID DID NOT CAUSE HARMFUL EFFECTS ON DEVELOPING FETUS WHEN GIVEN IN THE DIET OF LABORATORY ANIMALS, EVEN AT CONCENTRATIONS WHICH WERE HARMFUL TO THE PREGNANT ANIMALS.

IRRITANCY, SENSITIVITY: NIF

CARCINOGENICITY: NL NTP? IARC? OSHA?

POTENTIAL HEALTH EFFECTS:

12. ECOLOGICAL INFORMATION: NIF

13. DISPOSAL CONSIDERATIONS: DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

14. TRANSPORTATION INFORMATION: NOT DANGEROUS GOODS

15. REGULATORY INFORMATION:

CALIFORNIA PROPOSITION 65: THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS KNOWN TO STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH, OR ANY OTHER REPRODUCTIVE DEFECTS.

	HEALTH	FLAMMABILITY	REACTIVITY	OTHER
HMIS	1	1	0	
NFPA	1	1	0	

16. OTHER INFORMATION: NONE

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DATE PREPARED: 9/13/2010
REVISION: 2

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1. IDENTIFICATION:

NAME: PCD 3107
CAS #: NA

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2. CHEMICAL COMPOSITION:

Table with 5 columns: CHEMICAL NAME/COMMON NAME, CAS #, %, EXPOSURE LIMITS (OSHA PEL, ACGIH TLV). Row 1: PCD 3107, NA, 100, NA, NA.

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NL = Not Listed NIF = No Information Found

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3. HAZARD IDENTIFICATION:

EMERGENCY OVERVIEW: CAUSES EYE IRRITATION.
PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE IRRITATION.

PRIMARY ROUTE(S) OF ENTRY:

INHALATION? SKIN? X INGESTION?

ACUTE EFFECT OF OVEREXPOSURE:

EYES: IRRITANT TO EYES.

SKIN: MAY CAUSE IRRITATION.

INHALATION: EXPECTED TO BE LOW HAZARD FOR RECOMMENDED HANDLING.

INGESTION: EXPECTED TO BE INGESTION HAZARD.

CHRONIC EFFECTS OF EXPOSURE: NIF

4. FIRST AID MEASURES:

EYE CONTACT: IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION.

SKIN CONTACT: WASH WITH SOAP AND WATER. GET MEDICAL ATTENTION IF SYMPTOMS OCCUR.

INHALATION: IF SYNTOMATIC, MOVE TO FRSH AIR. TREAT SYMPTOMATICALLY. GET MEDICAL ATTENTION IF SYMPTOMS PERSIST.

INGESTION: DRINK 1-2 GLASSES OF WATER. SEEK MEDICAL ATTENTION. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

5. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT (METHOD USED): NONE

FLAMMABLE LIMITS: NIF LEL NA UEL NA

EXTINGUISHING MEDIA: WATER SPRAY, CARBON DIOXIDE (CO2), DRY CHEMICAL, ALCOHOL FOAM.

SPECIAL FIRE FIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING.

UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE

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6. SPILL OR LEAK PROCEDURES:

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

ABSORB SPILL WITH VERMICULITE OR OTHER INERT MATERIAL, THEN PLACE IN A CONTAINER FOR CHEMICAL WASTE. CLEAN SURFACE THOROUGHLY TO REMOVE RESIDUAL CONTAMINATION.

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7. HANDLING AND STORAGE:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

PERSONAL PRECAUTIONS: AVOID PROLONGED OR REPEATED BREATHING OF MIST OR VAPOR. USE ONLY WITH ADEQUATE VENTILATION. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. WASH THOROUGHLY AFTER HANDLING. DO NOT EAT, DRINK OR SMOKE WHEN USING THIS PRODUCT.

PREVENTION OF FIRE AND EXPLOSION: KEEP FROM CONTACT WITH OXIDIZING MATERIALS.

STORAGE: KEEP CONTAINER TIGHTLY CLOSED. KEEP AWAY FROM INCOMPATIBLE SUBSTANCES (SEE INCOMPATIBILITY SECTION).

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8. EXPOSURE CONTROL/PERSONAL PROTECTION:

RESPIRATORY PROTECTION (SPECIFY TYPE): NONE

VENTILATION: LOCAL EXHAUST: MECHANICAL: X
OTHER:

PROTECTIVE GLOVES: APPROPRIATE GLOVES REQUIRED.

EYE PROTECTION: WEAR SAFETY GLASSES WITH SIDE SHIELDS (OR GOGGLES).

OTHER PROTECTIVE EQUIPMENT: NA

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9. PHYSICAL DATA:

BOILING POINT: >100°C SPECIFIC GRAVITY (H2O = 1): 1.028
pH: 7.0

VAPOR PRESSURE (MM HG.): 18 MELTING POINT: NIF

VAPOR DENSITY (AIR = 1): 0.6

SOLUBILITY IN WATER: COMPLETE APPEARANCE AND ODOR: COLORLESS, ODORLESS LIQUID

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10. STABILITY AND REACTIVITY:

STABILITY: UNSTABLE: STABLE: X

INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION OF BY-PRODUCTS: CARBON DIOXIDE, CARBON MONOXIDE UNDER FIRE CONDITIONS.

HAZARDOUS POLYMERIZATION: MAY OCCUR: WILL NOT OCCUR: X

11. TOXICOLOGICAL INFORMATION:

LD50/LC50: ORAL LD-50 (RAT): 5000mg/kg

REPRODUCTIVE TOXICITY: NONE

IRRITANCY, SENSITIVITY: NONE

CARCINOGENICITY: NONE NTP? IARC? OSHA?

POTENTIAL HEALTH EFFECTS: THE TOXICOLOGICAL PROPERTIES OF THIS MATERIAL HAVE NOT BEEN FULLY INVESTIGATED.

12. ECOLOGICAL INFORMATION: READILY BIODEGRADABLE.

13. DISPOSAL CONSIDERATIONS: OBSERVE ALL FEDERAL, STATE AND LOCAL REGULATIONS.

14. TRANSPORTATION INFORMATION: NOT REGULATED.

15. REGULATORY INFORMATION: LISTED ON TSCA REGULATORY LIST.

16. OTHER INFORMATION:

NFPA HAZARD RATING: HEALTH = 2 FLAMMABILITY = 1 INSTABILITY = 0

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