

LAKELAND

CHEMICAL SPECIALTIES, INC.

W140 N5090 LILLY RD.
MENOMONEE FALLS, WIS. 53051

24 Hour Emergency: (800) 424-9300 (CHEMTREC) Phone: (414) 781-1350

MATERIAL SAFETY DATA SHEET

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MATERIAL: A-5000 Water Treatment Biocide
DATE ISSUED: 05/26/94-Rev.
DOT HAZARD CLASSIFICATION: 5.1, PGII
DOT SHIPPING NAME: Oxidizing Substances, Solid, N.O.S.
DOT LABEL: Oxidizer
FORMULA: Mixture
CHEMICAL NAME: Mixture

SECTION 1:

INGREDIENTS

	APPROXIMATE WEIGHT %	TWA/TLV
Bromochloro-5 5-dimethylhydantoin (CAS #126-06-7)	60.0	0.2 mg/m ³ (Lonza Internal Standard)
1,3-Dichloro-5 5-dimethylhydantoin (CAS #118-52-5)	27.4	0.2 mg/m ³ (OSHA-PEL) 0.4 mg/m ³ (OSHA-STEL) 0.2 mg/m ³ (ACGIH-TLV)
1,3-Dichloro-5-ethyl- 5-methylhydantoin (CAS #89415-87-2)	10.6	0.2 mg/m ³ Lonza Internal Standard)
Sodium Chloride (CAS #7647-14-5)	1	None Established

SECTION 2: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Briquettes	pH: Not Known
Viscosity: Not applicable	Odor: Very slight pungent
Boiling Point: Not applicable	Melting or Freezing Point: 120-148°
Vapor Density (Air=1) NA	Vapor Pressure (mm HG): NA
Percent Volatile (by Volume) < 0.5	Solubility in water: 0.54 gram/ 100 grams @25°C
Evaporation Rate (butyl Acetate) < 1	Specific Gravity (Water=1): Not applicable

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SECTION 3: FIRE AND EXPLOSION INFORMATION

Flash Point:	>200°F
Auto Ignition Temperature:	Not Known
Lower Explosion Limit (%):	Not applicable
Upper Explosion Limit (%):	Not applicable
Extinguishing Media:	
Foam	X
Dry Chemical	X
Alcohol Foam	
Water	X
CO ₂	
Other	

SPECIAL FIRE FIGHTING PROCEDURES:

To minimize the progressive generation of noxious gases, flood burning material with large quantities of water. Must wear NIOSH/MSHA approved self-contained breathing apparatus and protective clothing. Cool fire-exposed containers with water spray.

SECTION 3: FIRE AND EXPLOSION INFORMATION

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Materials is a strong oxidizer and corrosive. May ignite combustible materials and may produce noxious gases. Product of combustion are toxic. Airborne dusts of this product in an enclosed space and in the presence of an ignition source may constitute an explosion hazard. Use adequate explosion-proof ventilation systems to control dust at the source. Avoid generating product dust near sources of ignition, including static electricity. Use safety measures in accordance with the 1988 edition of NFPA 654 (standard for the Prevention of Dust Explosions in the Chemical, Dye, Pharmaceutical and Plastic Industries).

SECTION 4: HEALTH EFFECTS INFORMATION

Routes of Entry:	Skin Contact X	Eye Contact X
	Inhalation X	Ingestion

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SECTION 4: HEALTH EFFECTS INFORMATION

EFFECTS OF OVEREXPOSURE

Direct skin and eye contact can result in severe skin and eye irritation. Prolonged contact may produce irreversible damage. Inhalation of high concentrations can be severely irritating to the lung with potential systemic absorption and tissue damage. Repeated skin exposure may induce sensitization.

OVEREXPOSURE MAY AGGRAVATE EXISTING CONDITIONS:
No effects indicated.

EMERGENCY AND FIRST AID PROCEDURES:

Eyes: Flush eyes with large amounts of running water for at least 15 minutes. Hold eyelid apart to ensure rinsing of the entire surface of the eye and lids with water. Get immediate medical attention. If physician not available, flush for additional 15 minutes and then transport victim to medical care.

Skin: Immediately wipe away excess material with dry cloth while removing contaminated clothing and shoes. Under safety shower, wash affected areas thoroughly with large amounts of water, and soap if available, for at least 15 minutes. Get immediate medical attention. Discard or decontaminate clothing and shoes.

Inhalation: Remove from area to fresh air. If not breathing, clear airway and start artificial respiration. If victim is having trouble breathing, give supplemental oxygen, if available. Get immediate medical attention.

Ingestion: If swallowed, immediately give 3-4 glasses of water. DO NOT induce vomiting. If vomiting occurs, give fluids again. Get immediate medical attention. Have physician determine if patient's condition allows induction of vomiting or evacuation of stomach. Do not give anything by mouth to an unconscious or convulsing person.

CHEMICAL LISTED AS CARCINOGEN BY:

National Toxicology Program:	No
I.A.R.C. Monographs:	No
OSHA	No

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SECTION 5: REACTIVITY INFORMATION

Stable X, Unstable .

Conditions to Avoid: None Known (Decomposes at 165°C)

Hazardous Decomposition Products

Thermal decomposition may produce toxic vapors/fumes of chlorine, bromine, organic materials and oxides of carbon and nitrogen.

Hazardous Polymerization

May Occur , Will Not Occur X.

Conditions to Avoid: None Known

Incompatibility (Materials To Avoid)

Water

Other X

Strong acids and alkalis, high storage temperatures, moisture and readily oxidizable material.

SECTION 6: SPILL AND DISPOSAL INFORMATION

Steps to be taken in case material is released or spilled

Danger! Oxidizing and corrosive material. Dust explosion hazard. Do not get in eyes or on skin. Do not breath dust. For spills, wear appropriate protective gear, and respiratory protection. Where dust may be generated, wear full face respiratory protection, and remove all sources of ignition. For large spills, or when spilled material comes in contact with water, self-contained breathing apparatus is preferred.

Carefully sweep up spilled material (avoid generating dust) and place in an appropriate container for disposal. Do not contaminate with oxidizable materials. Neutralize any residue with dilute, alkaline sodium bisulfite or thiosulfate solution; absorb with sand or vermiculite and place in a compatible container for disposal. If spilled material is wet, neutralize and proceed as stated above.

Material is toxic to fish. Do not discharge into lakes, streams, ponds or public water unless in accordance with an NPDES permit.

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SECTION 6: SPILL AND DISPOSAL INFORMATION

Waste Disposal Methods

Dispose of in compliance with all Federal, state and local laws and regulations. Incineration is the preferred method. Relatively small quantities of product may be neutralized as stated above, and if in accordance with local laws and operators of the local sewage treatment plants, the neutralized material may be discharged in sewer systems.

SECTION 7: PERSONAL PROTECTION INFORMATION

Ventilation Type

In processes where dusts or airborne particulates may be generated, proper ventilation must be provided in accordance with good ventilation practices.

Respiratory Protection

In processes where dust or airborne particulates may be generated, a NIOSH/MSHA jointly approved respirator is advised in the absence of proper environmental controls.

Protective Gloves

Rubber or neoprene, to prevent skin contact.

Eye Protection

Wear chemical goggles where there is a potential for eye contact. Use safety glasses with side shields under normal use conditions.

Other Protective Equipment

Eye wash; safety shower; protective clothing (long sleeves, coveralls or other as appropriate), when needed, to prevent skin contact.

SECTION 8: STORAGE AND HANDLING

Precautions For Storage and Handling:

Do not breath dust. Avoid generating dust. Store in a cool, dry place, isolated from all organic material. Product is a strong oxidizer and is corrosive. Avoid heat and direct sunlight. Do not allow product to come in contact with oxidizable material. Keep container closed.

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SECTION 9: TOXICOLOGY INFORMATION

- oral LD₅₀ (rat): 468 mg/kg
- eye irritation (rabbit): severe irritant and corrosive
(produced tissue destruction to both abraded and unabraded skin-primary irritation index=110)
- skin irritation (rabbit-Draize test): corrosive to both abraded and unabraded skin.
- skin corrosive (rabbit-US DOT test): not corrosive
- severely irritating to lung upon inhalation with potential systemic absorption and tissue damage.
- LC₅₀ (rainbow trout-96 hours): 0.5 mg/l
- LC₅₀ (bluegill sunfish-96 hours): 1.2 mg/l
- LC₅₀ (Daphnia magna-48 hours): 0.4 mg/l
- LC₅₀ (mysid shrimp-96 hours): 0.93 mg/l
- LC₅₀ (sheephead minnow-96 hours): 1.4 mg/l (as Br₂)
- EC₅₀ (eastern oysters-96 hours): 0.84 mg/l (as Br₂)

For 1,3-Dichloro-5, 5-dimethylhydantoin:

- skin sensitization (guinea pig-Buehler test): skin sensitizer

SECTION 10: MISCELLANEOUS AND REGULATORY INFORMATION

FEDERAL LEVEL REGULATIONS:

This is an EPA registered pesticide (EPA Registration No. 6836-115). This material may only be used in the EPA registered application(s) stated on the product label.

TOXIC SUBSTANCE CONTROL ACT (TSCA INVENTORY) STATUS:

Found on U.S. EPA TSCA inventory.

CERCLA (Comprehensive Environmental Response, Compensation and Liability Act of 1980 requires notification of the National Response Center) (Telephone 800-424-8802) in the event of a release of quantities of the following hazardous materials contained in this product, if the release is equal to or greater than the Reportable Quantities (RQs) listed in 40 CFR 302.4:

<u>Chemical Name</u>	<u>CAS NUMBER</u>	<u>Typical Maximum Concentration</u>
None Known		

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SECTION 10: MISCELLANEOUS AND REGULATORY INFORMATION

SARA Title III, Sections 302/304 (Superfund Amendments and Reauthorization act of 1986)-This act requires emergency planning, including agency notification, for possible release of the following components of this material, based upon the Threshold Planning Quantities (TPQs) and release Reportable Quantities (RQs) listed for the Components in 40 CFR 355:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Typical Maximum Concentration</u>
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None known

SARA Title III Section 311/312-This act requires reporting under the Community Right-to-Know provision due to the inclusion of the following components of this material in one or more of the five hazard categories listed in 40 CFR 370:

<u>CHEMICAL NAME</u>	<u>CAS Number</u>	<u>Hazard *)Categories</u>
Bromochloro-5,5-dimethylhydantoin	126-06-7	A,R
1,3-Dichloro-5,5-dimethylhydantoin	118-52-5	A,R
1,3-Dichloro-5-ethyl-5-methylhydantoin	89415-87-2	A,R

*) The five hazard categories are as follows: F=Fire Hazard; S=Sudden Release Of Pressure; R=Reactive; A=Immediate (Acute) Health Hazard; C=Delayed (Chronic Health Hazard)

SARA Title III Section 313-This act requires submission of annual reports off the releases of the following components of this material if the threshold reporting quantities as listed in 40 CFR 372, are met or exceeded:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Typical Maximum Concentration</u>
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None known

The information provided herein is compiled from internal reports and data from professional publications. IT IS FURNISHED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. It is intended to assist in evaluating the suitability and proper use of the material in manufacturing and in the development and implementation of safety precautions and procedures.