

LAKELAND

CHEMICAL SPECIALTIES, INC.

W140 N5090 LILLY ROAD
MENOMONEE FALLS, WI 53051

24 Hour Emergency: (800) 424-9300 (CHEMTREC)

Phone: (262) 781-1350

MATERIAL SAFETY DATA SHEET

DATE ISSUED 06/06

SECTION 1: PRODUCT IDENTIFICATION

PRODUCT NAME: A-5000 WATER TREATMENT BIOCIDES
DATE ISSUED: 05/26/94-REV.
DOT HAZARDOUS CLASSIFICATION: 5.1, PGII
DOT SHIPPING NAME: OXIDIZING SUBSTANCES, SOLID, N.O.S.
DOT LABEL: OXIDIZER
FORMULA: MIXTURE
CHEMICAL FAMILY: MIXTURE

SECTION 2: HAZARDOUS INGREDIENTS

	APPROXIMATE WEIGHT %	TWA/TLV
BROMOCHLORO-5 5-DIMETHYLHYDANTOIN (CAS #126-06-7)	60.0	0.2 MG/M3(LONZA INTERNAL STANDARD)
1,3-DICHLORO-5 5-DIMETHYLHDANTOIN (CAS #118-52-5)	27.4	0.2 MG/M3 (OSHA-PEL) 0.4 MG/M3 (OSHA-Stel) 0.2 mg/m3 (ACGIH-TLV)
1,3-DICHLORO-5-ETHYL- 5-METHYLHYDANTOIN (CAS #89415-87-2)	10.6	0.2 MG/M3 (LONZA INTERNAL STANDARD)
SODIUM CHLORIDE (CAS #7647-14-5)	1	NONE ESTABLISHED

SECTION 3: PHYSICAL/CHEMICAL PROPERTIES

BOILING POINT:	NOT APPLICABLE	MELTING POINT:	120-148°
SOLUBILITY IN WATER:	0.54 GRAM/100 GRAMS @25°C	VAPOR PRESSURE (mm Hg):	NA
pH:	NOT KNOWN	VAPOR DENSITY (AIR = 1):	NA
SPECIFIC GRAVITY(WATER=1):	NOT APPLICABLE	VISCOSITY:	NOT APPLICABLE
APPEARANCE/ODOR	BRIQUETTES	EVAPORATION RATE (BUTYL ACETATE)	<1
ODOR:	VERY SLIGHT PUNGENT	PERCENT VOLATILE (BY VOLUME):	<0.5

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

SECTION 6: REACTIVITY INFORMATION

STABLE 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

CONDITIONS TO AVOID: NONE KNOWN

INCOMPATIBILITY (MATERIALS TO AVOID)

WATER

OTHER

STRONG ACIDS AND ALKALIS, HIGH STORAGE TEMPERATURES, MOISURE AND READILY OXIDIZABLE MATERIALS.

SECTION 7: 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 APPROPRIAITE 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 PERFERRED.

CAREFULLY SWEEP UP SPILLED MATERIALS (AVOID GENERATING DUST) AND PLCE 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.**

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 SEWERAGE TREATMENT PLANTS, THE NEUTRALIZED MATERIALS MAY BE DISCHARGED IN SEWER SYSTEMS.

SECTION 8: PERSONAL PROTECTION INFORMATION

VENTILATION TYPE

IN PROCESSES WHERE DUST 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 NIOSHA/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 9: STORAGE AND HANDLING

PRECAUTIONS FOR STORAGE AND HANDLING:

DO NOT BREATHE 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.

SECTION 10: TOXICOLOGY INFORMATION

ORAL LD₅₀ (RAT): 468 mg/kg

EYE IRRITATION (RABBIT): SEVERE IRRITANT AND CORROSIVE

(PRODUCED TISSUE DISTRUCTION 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-96HOURS): 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 11: 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 (RQ'S) LISTED IN 40 CFR 302.4:

<u>CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>TYPICAL MAXIMUM CONCENTRATION</u>
NONE KNOWN		

SARA TITLE III, SECTION 302/304 (SUPERFUND AMENDMENT 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>
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 NAME</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-METHYHYDANTOIN	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 THE MATERIAL IF THIS 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>
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.