

MATERIAL SAFETY DATA SHEET

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MSDS #0002

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Page 1

I. IDENTIFICATION

PRODUCT NAME: Algae Clear® Tablets
Microbiological Growth Control
CHEMICAL FAMILY: Halogenated Hydantoin
TECHNICAL NAME: 1-bromo-3-chloro-5,5-dimethylhydantoin
PRODUCT USE: Photo Processing

PRODUCT IDENTIFIER: 150-00064
EPA REGISTRATION: 5185-420-62593

II. SUMMARY OF HAZARDS

EMERGENCY OVERVIEW: DANGER: Highly Corrosive. Causes skin and eye damage. May be fatal if swallowed. Do not get in eyes, on skin or on clothing. Wear goggles or safety glasses and rubber gloves when handling this product. Avoid breathing dust. Remove and wash contaminated clothing before use.

EFFECTS OF OVEREXPOSURE – EYE CONTACT: DANGER: Highly Corrosive. Causes eye damage. Do not get in eyes.

EFFECTS OF OVEREXPOSURE – SKIN CONTACT: DANGER: Highly Corrosive. Causes skin damage. Do not get on skin.

EFFECTS OF OVEREXPOSURE – INHALATION: Irritating to nose and throat. Avoid breathing dust or vapors.

EFFECTS OF OVEREXPOSURE – CHRONIC HAZARDS: There are no known chronic hazards.

PRIMARY ROUTES OF ENTRY: Skin contact, Inhalation, Ingestion, Eye contact.

III. HAZARDOUS COMPONENTS

<u>COMPONENT</u>	<u>WT%</u>	<u>CAS Number</u>
1-bromo-3-chloro-5, 5-dimethylhydantoin	92.5%	16079-88-2
Sodium Carbonate	4.5%	497-19-8

IV. CHEMICAL AND PHYSICAL PROPERTIES

BOILING POINT: N / A
MELTING POINT: 320°F
SOL. IN WATER: 0.15g/100g Water
pH: 4.5
APPEARANCE/ODOR: White / Bromine

VAPOR PRESSURE: N / A
VAPOR DENSITY: Is heavier than air
SPECIFIC GRAVITY: N / A
EVAPORATION RATE: Is slower than Butyl Acetate
PHYSICAL STATE: Solid

V. HEALTH HAZARD DATA & FIRST AID PROCEDURES

CHEMICAL NAME:**Halogenated Hydantoin***MSDS #0002**Continued**Page 2*

EYE CONTACT: If contact with eyes occurs: Immediately flush with cold water for at least 15 minutes. Then get immediate medical attention.

SKIN CONTACT: If contact with skin occurs: Brush off excess chemical and flush skin with cold water for at least 15 minutes. If irritation persists, get medical attention.

INHALATION: If inhaled: Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If not breathing, give artificial respiration. Call a physician immediately.

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Call a physician or poison control center.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

VI. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): None

FLAMMABLE LIMITS **LOWER:** N / A **UPPER:** N / A

EXTINGUISHING MEDIA: Water Fog, Dry Chemical

FIRE FIGHTING INSTRUCTIONS: Firefighters should wear full protective clothing and self contained breathing apparatus (SCBA). Thoroughly decontaminate fire fighting equipment including all fire fighting apparel after incident.

UNUSUAL FIRE AND EXPLOSION HAZARDS: This product if heated to an outside source to temperatures above 320° F, will undergo self-sustaining decomposition with the evolution of heat, dense noxious gases and large amounts of oxygen. A fire of great intensity may result. Any spilled material should be considered contaminated. Neutralize to a non-oxidizing material for safe disposal. Material which appears undamaged except for being damp on the outside, should be opened and inspected immediately. If the material is damp, it should be neutralized to a non-oxidizing material for safe disposal.

VII. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Using appropriate protective clothing and safety equipment, contain spilled material. Do not add water to spilled material. Using clean dedicated equipment, sweep and scoop all spilled material, contaminated soil, and other contaminated media and place into clean dry containers for disposal. Do not use floor sweeping compounds to clean up spills. Do not close containers containing wet or damp material. They should be left open to disperse any hazardous gases that may form. Do not transport wet or damp material. Keep product out of sewers, watersheds and water systems. Do not contaminate water, food, or feed by storage or disposal of equipment. Dispose of according to local, state and federal regulations.

VIII. HANDLING AND STORAGE

HANDLING: STRONG OXIDIZING AGENT: Do not mix with other chemicals. Mix only with water. Never add water to product. Always add product to large quantities of water. Use clean dry utensils. Do not add this product to any dispensing device containing remnants of any other product. Such use may cause a violent reaction leading to fire or explosion. Contamination with moisture, organic matter or other chemicals will start a chemical reaction and generate heat, hazardous gas, possible fire and explosion. In case of contamination or decomposition, do not reseal container. If possible, isolate container in open air or well-ventilated area. Flood area with large volumes of water.

STORAGE: Keep this product in original closed container when not in use. Store in a cool, dry, well-ventilated area away from heat or open flame. Do not contaminate water, food or feed by storage or disposal or cleaning of equipment.

IX. EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>COMPONENT</u>	<u>SOURCE</u>	<u>VALUE</u>
1-bromo-3-chloro-5,5-dimethylhydantoin	OSHA TWA ACGIH TLV	Not Established Not Established
Sodium Carbonate	OSHA TWA ACGIH TLV	Not Established Not Established

ENGINEERING CONTROLS: General room ventilation plus local exhaust should be used to maintain exposure below TLV.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

SKIN PROTECTION: Wear rubber gloves when handling this product. Avoid contact with skin.

EYE PROTECTION: Wear goggles or safety glasses with side shields when handling this product.

OTHER PROTECTIVE EQUIPMENT: Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.

HYGIENIC PRACTICES: Remove and wash contaminated clothing before reuse.

X. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal conditions.

CONDITIONS TO AVOID: High Temperature. Poor Ventilation. Contamination. Moisture/High Humidity.

INCOMPATIBILITY: Avoid contact with water on concentrated material in the container. Avoid contact with easily oxidizable material. Ammonia, urea, or similar nitrogen containing compounds. Inorganic reducing compounds. Other photographic arts chemicals in their concentrated forms.

HAZARDOUS DECOMPOSITION PRODUCTS: Halogen containing gases can be produced.

XI. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: Toxicological studies indicate this product to be corrosive to skin and eyes. It is not a mutagen or teratogen. It is listed as a carcinogen by OSHA, EPA, NTP, or IARC.

XII. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

XIII. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance. Do not contaminate water, food, or feed, by storage or disposal or cleaning of equipment.

XIV. REGULATORY INFORMATION

MSDS #0002

Continued

Page 4

FEDERAL:

OSHA (Occupational Safety and Health Act):

Product is hazardous by definition of the Hazard Communication Standard.

TSCA (Toxic Substance Control Act):

This product or its components are listed on the TSCA Inventory.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

This product or its components are not subject to export notification.

FIFRA (Federal Insecticide, Fungicide, Rodenticide Act):

This product is a registered pesticide.

CERCLA (Comprehensive Response, Compensation and Liability Act):

This product or its components are not listed.

SARA (Superfund Amendments and Reauthorization Act):

SARA 313: This product or its components are not listed.

CAA (Clean Air Act) Listed Substances: Not listed.

CWA (Clean Water Act) Listed Substances: Not listed.

DEA (Drug Enforcement Precursor & Essential Chemicals) Listed Substances: Not listed.

FDA (Food and Drug Administration) Listed Substances: Not listed.

XV. TRANSPORTATION

DOT:

Proper Shipping Name: Oxidizing Substance, Solid, N.O.S.

Hazard Class: 5.1

Identification Number: UN 1479

Packing Group: II

RQ: NO RQ

XVI. OTHER INFORMATION

NFPA: Health: 3

Flammability: 1

Reactivity: 2

HMIS: Health: 3

Flammability: 1

Reactivity: 2

Personal Protection: B

NOTICE

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Safe handling is the responsibility of the customer/user. Read the label before using this product.