

# MATERIAL SAFETY DATA SHEET

## Section 1. Chemical Product and Company Identification

**Product Name:** ChemTreat C2189T  
**Product Use:** Cooling Water Microbiocide  
**Supplier's Name:** ChemTreat, Inc.  
**Emergency Telephone Number:** (800) 424-9300 (Toll Free)  
(703) 527-3887  
**Address (Corporate Headquarters):** 5640 COX ROAD  
Glen Allen, VA 23060  
**Telephone Number for Information:** (800) 648-4579  
**Date of MSDS:** March 25, 2013

## Section 2. Hazard(s) Identification



**Signal Word:** DANGER!

**Hazard Statement(s):** Causes severe skin burns and eye damage.  
Causes serious eye damage.  
Harmful in contact with skin.  
Harmful if inhaled.  
Harmful if swallowed.  
Toxic to aquatic life.  
May intensify fire; oxidizer.

**Precautionary Statement(s):** Wear protective gloves/clothing and eye/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area.

## Section 3. Composition/Hazardous Ingredients

Component	CAS Registry #	Wt. %
1-Bromo-3-chloro-5,5-dimethylhydantoin	16079-88-2	96

## ***Section 4. First Aid Measures***

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<b>Inhalation:</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
<b>Eyes:</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
<b>Skin:</b>	Immediately remove/take off all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before re-use. Immediately call a poison center or doctor/physician.
<b>Ingestion:</b>	DO NOT INDUCE VOMITING. Rinse mouth. Call a POISON CENTER or doctor/physician.
<b>Notes to Physician:</b>	Probable mucosal damage may contraindicate the use of gastric lavage.
<b>Additional First Aid Remarks:</b>	N/A

## ***Section 5. Fire Fighting Measures***

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<b>Flammability of the Product:</b>	Product is an oxidizer. Oxidizers may increase the intensity of a fire.
<b>Suitable Extinguishing Media:</b>	Use extinguishing media suitable to surrounding fire. Do not use ammonium phosphate dry chemical.
<b>Specific Hazards Arising from the Chemical:</b>	None known.
<b>Protective Equipment:</b>	If product is involved in a fire, wear full protective clothing including a positive-pressure, NIOSH approved, self-contained breathing apparatus.

## ***Section 6. Accidental Release Measures***

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<b>Personal Precautions:</b>	Use appropriate Personal Protective Equipment (PPE).
<b>Environmental Precautions:</b>	This pesticide is toxic to fish. Do not discharge effluent containing this product into lakes, ponds, streams, estuaries, oceans or public 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.
<b>Methods for Cleaning up:</b>	Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust.
<b>Other Statements:</b>	None.

## ***Section 7. Handling and Storage***

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<b>Handling:</b>	Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.
<b>Storage:</b>	Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only. Store in dry place. Protect from heat and sources of ignition.

## Section 8. Exposure Controls/Personal Protection

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### Exposure Limits

Component	Source	Exposure Limits
1-Bromo-3-chloro-5,5-dimethylhydantoin		N/E

### Carcinogenicity Category

Component	Source	Code	Brief Description
1-Bromo-3-chloro-5,5-dimethylhydantoin			N/E

### Engineering Controls:

Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.

### Personal Protection

#### Eyes:

Wear chemical splash goggles or safety glasses with full-face shield. Maintain eyewash fountain in work area.

#### Skin:

Maintain quick-drench facilities in work area. Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.

#### Respiratory:

If dust is present during handling, wear a dust mask.

## Section 9. Physical and Chemical Properties

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<b>Physical State and Appearance:</b>	Tableted Solid, White, Opaque
<b>Specific Gravity:</b>	N/A
<b>pH:</b>	4.2 @ 20°C, 0.1%
<b>Freezing Point:</b>	N/A
<b>Flash Point:</b>	N/D
<b>Odor:</b>	Mild
<b>Melting Point:</b>	293 – 302°F
<b>Boiling Point:</b>	N/D
<b>Solubility in Water:</b>	Soluble
<b>Evaporation Rate:</b>	N/D
<b>Vapor Density:</b>	N/D
<b>Molecular Weight:</b>	N/D
<b>Viscosity:</b>	N/A
<b>Flammable Limits:</b>	N/A
<b>Autoignition Temperature:</b>	N/A
<b>Density:</b>	0.00 lb/ga
<b>Vapor Pressure:</b>	N/D
<b>% VOC:</b>	N/D

## Section 10. Stability and Reactivity

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<b>Chemical Stability:</b>	Stable at normal temperatures and pressures.
<b>Incompatibility with Various Substances:</b>	Reducing agents, Strong bases, Ammonia
<b>Hazardous Decomposition Products:</b>	Hydrogen bromide, Hydrogen chloride, Bromine, Chlorine, Oxides of carbon, Oxides of nitrogen
<b>Possibility of Hazardous Reactions:</b>	None known.

## Section 11. Toxicological Information

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Chemical Name	Exposure	Type of Effect	Concentration	Species
ChemTreat C2189T	Oral	LD50	578 mg/kg	Rat
	Dermal	LD50	2000 mg/kg	Rabbit

**Comments:** None.

## Section 12. Ecological Information

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Species	Duration	Type of Effect	Test Results
Fathead Minnow	96h	LC50	2.25 mg/l
Rainbow Trout	96h	LC50	0.87 mg/l
Daphnia magna	48h	LC50	0.46 mg/l
Sheepshead Minnow	96h	LC50	20 mg/l
Ceriodaphnia dubia	48h	LC50	1.593 mg/l
Mysid Shrimp	24h	LC50	3.3 mg/l
	48h	LC50	2.1 mg/l
Inland Silverside	24h	LC50	1.8 mg/l
	96h	LC50	1.8 mg/l

**Comments:** None.

## ***Section 13. Disposal Considerations***

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**PESTICIDE DISPOSAL:** 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.

**CONTAINER DISPOSAL:** Non-refillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by procedures approved by state and local authorities. EPA ignitibility characteristic hazardous waste D001 when disposed of in the original product form.

## ***Section 14. Transport Information***

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### **DOT**

<b>Proper Shipping Name:</b>	OXIDIZING SOLID, N.O.S.
<b>Technical Name:</b>	(BROMO-CHLORO-DIMETHYLHYDANTOIN)
<b>Hazard Class:</b>	Oxidizer
<b>UN/NA#:</b>	UN1479
<b>Packing Group:</b>	PGIII

### **IMDG**

<b>Proper Shipping Name:</b>	OXIDIZING SOLID, N.O.S.
<b>Technical Name:</b>	(BROMO-CHLORO-DIMETHYLHYDANTOIN)
<b>Hazard Class:</b>	Oxidizer
<b>UN/NA#:</b>	UN1479
<b>Packing Group:</b>	PGIII

### **ICAO**

<b>Proper Shipping Name:</b>	OXIDIZING SOLID, N.O.S.
<b>Technical Name:</b>	(BROMO-CHLORO-DIMETHYLHYDANTOIN)
<b>Hazard Class:</b>	Oxidizer
<b>UN/NA#:</b>	UN1479
<b>Packing Group:</b>	PGIII

**TDG**

**Proper Shipping Name:** OXIDIZING SOLID, N.O.S.  
**Technical Name:** (BROMO-CHLORO-DIMETHYLHYDANTOIN)  
**Hazard Class:** Oxidizer  
**UN/NA#:** UN1479  
**Packing Group:** PGIII

## Section 15. Regulatory Information

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**Inventory Status**

**United States (TSCA):** All ingredients listed.  
**Canada (DSL/NDSL):** All ingredients listed.

**Federal Regulations****SARA Title III Rules****Sections 311/312 Hazard Classes**

**Fire Hazard:** No  
**Reactive Hazard:** No  
**Release of Pressure:** No  
**Acute Health Hazard:** Yes  
**Chronic Health Hazard:** No

**Other Sections**

Component	Section 313 Toxic Chemical	Section 302 EHS TPQ	CERCLA RQ
1-Bromo-3-chloro-5,5-dimethylhydantoin	N/A	N/A	N/A

**Comments:** None.

**State Regulations**

**California Proposition 65:** None.

### Special Regulations

Component	States
1-Bromo-3-chloro-5,5-dimethylhydantoin	None

### International Regulations

#### Canada

**WHMIS Classification:** N/A

**Controlled Product Regulations (CPR):** N/A

## Section 16. Other Information

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### HMIS Hazard Rating

**Health:** 3  
**Flammability:** 1  
**Physical Hazard:** 1  
**PPE:** X

**Notes:** The PPE rating depends on circumstances of use. See Section 8 for recommended PPE.  
The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha-numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end-user must determine if the code is appropriate for their use.

**NSF:** Certified to NSF/ANSI Standard 60  
Maximum use rate for potable water – 3 mg/L  
This product ships as NSF from:  
Facility #5 USA

**FDA/USDA/GRAS:** N/A

**KOSHER:** This product is certified by the Orthodox Union as Kosher for Passover and year-round use.  
Only when prepared by the following ChemTreat facilities: Ashland, VA; Eldridge, IA; Nederland, TX; Vernon, CA.

**FIFRA:** This product is an EPA registered biocide. 83451-4-15300

**Other:** PMRA biocide registration NO. 26538.



## Abbreviations

Abbreviation	Definition
<	Less Than
>	Greater Than
ACGIH	American Conference of Governmental Industrial Hygienists
EHS	Environmental Health and Safety Dept
N/A	Not Applicable
N/D	Not Determined
N/E	Not Established
OSHA	Occupational Health and Safety Dept
PEL	Personal Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weight Average
UNK	Unknown

Prepared by: Regulatory Affairs Department

## *Disclaimer*

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