

## SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Code:** 210914  
**Product Name:** AFCO 9310  
**Category:** Biocide  
**Company Name:** AFCO  
 550 Development Avenue  
 Chambersburg, PA 17201  
**Phone Number:** (800)345-1329  
**Emergency Contact:** CHEMTREC: (800)424-9300  
**Information:** EPA #: 833  
**Intended Use:** A biocide used to control bacteria, algae, slime, and fungi.

### 2. HAZARDS IDENTIFICATION

**Acute Toxicity: Oral, Category 4**  
**Skin Corrosion/Irritation, Category 1B**  
**Skin Sensitization, Category 1**  
**Aquatic Toxicity (Chronic), Category 1**



**GHS Signal Word:** **Danger**  
**GHS Hazard Phrases:** H302 - Harmful if swallowed.  
 H314 - Causes severe skin burns and eye damage.  
 H317 - May cause an allergic skin reaction.  
 H410 - Very toxic to aquatic life with long lasting effects.  
**GHS Precautionary Phrases:** P260 - Do not breathe dust/fume/gas/mist/vapors/spray.  
 P264 - Wash hands thoroughly after handling.  
 P270 - Do not eat, drink or smoke when using this product.  
 P272 - Contaminated work clothing should not be allowed out of the workplace.  
 P273 - Avoid release to the environment.  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
**GHS Response Phrases:** P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
 P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 - Immediately call a POISON CENTER or doctor/physician.  
 P330 - Rinse mouth.  
 P333+313 - If skin irritation or rash occurs, seek medical advice/attention.  
 P362+364 - Take off contaminated clothing and wash it before reuse.  
 P391 - Collect spillage.  
**GHS Storage and Disposal Phrases:** P405 - Store locked up.  
 P501 - Dispose of contents/container to accordance with national and international regulations.



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Hazard Rating System:

HEALTH	3
FLAMMABILITY	0
PHYSICAL	1
PPE	F

HMIS:

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Ingredient(s)	Concentration
32718-18-6	Bromochloro-5,5-dimethylimidazolidine-2,4-dione	96.0 -99.5 %

### 4. FIRST AID MEASURES

#### Emergency and First Aid Procedures:

- In Case of Inhalation:** Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. Seek medical advice/attention if you feel unwell.
- In Case of Skin Contact:** Wash exposed area with soap and water thoroughly. Remove contaminated clothing and wash before reuse. Seek medical advice/attention if irritation or burns develop or persists.
- In Case of Eye Contact:** Immediately flush eyes with running water for at least 15 minutes. Remove contact lenses if present after the first 5 minutes. Seek medical advice/attention if irritation develops or persists.
- In Case of Ingestion:** Rinse mouth with water. Do NOT induce vomiting. Never give anything to an unconscious person. Seek medical advice/attention immediately.
- Note to Physician:** No specific antidote. Treat symptomatically and supportively. Probable mucosal damage may contraindicate the use of gastric lavage.

### 5. FIRE FIGHTING MEASURES

- Flash Point:** No data.
- Explosive Limits:** LEL: No data. UEL: No data.
- Autoignition Pt:** No data.
- Suitable Extinguishing Media:** Dry powder, carbon dioxide or water spray. Water may be ineffective. In case of exothermic decomposition and appearance of smoke, water should be used to suppress it.
- Unsuitable Extinguishing Media:** Do not use dry chemical extinguisher containing ammonia compounds.
- Fire Fighting Instructions:** Use water spray to cool unopened containers. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products.
- Flammable Properties and Hazards:** Dust may form a weak explosive mixture with air (class St1), but is not sensitive to ignition from electrostatic discharges. Forms explosive mixtures with combustible, organic or other easily oxidizable materials. When heated to decomposition, may release poisonous and corrosive fumes.



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### 6. ACCIDENTAL RELEASE MEASURES

<b>Protective Precautions, Protective Equipment and Emergency Procedures:</b>	Evacuate area. Use respirator with combined filter (inorganic gas and dust), gloves, chemical safety goggles and body covering clothes. If material is decomposing, use self-contained breathing apparatus and a fully encapsulated suit.
<b>Environmental Precautions:</b>	Avoid release to the environment.
<b>Steps To Be Taken In Case Material Is Released Or Spilled:</b>	Sweep up, place in a suitable container and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

### 7. HANDLING AND STORAGE

<b>Precautions To Be Taken in Handling:</b>	Avoid prolonged or repeated contact with eyes, skin, or clothing. Wash thoroughly after handling. Avoid breathing in dust from product. Use with adequate ventilation. Keep containers closed when not in use.
<b>Precautions To Be Taken in Storing:</b>	Keep away from sources of ignition. Keep container tightly closed. Recommended storage temperature below 30°C. For transportation purposes it is possible to store at temperatures up to 50°C. Store in a cool dry place. Store away from incompatible material.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Components (Chemical Name)	OSHA TWA	ACGIH TWA	Other Limits
32718-18-6	Bromochloro-5,5-dimethylimidazolidine-2,4-dione	No data.	No data.	No data.
<b>Respiratory Equipment (Specify Type):</b>	Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Manufacturer's TLV-Ceiling Recommendation: 0.1 mg/m <sup>3</sup>			
<b>Eye Protection:</b>	Chemical safety goggles.			
<b>Protective Gloves:</b>	Wear appropriate chemical resistant gloves. Neoprene gloves are recommended.			
<b>Other Protective Clothing:</b>	Wear appropriate protective clothing to prevent skin exposure. Choose protection according to the amount and concentration of the dangerous substance at the workplace.			
<b>Engineering Controls (Ventilation etc.):</b>	Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.			
<b>Work/Hygienic/Maintenance Practices:</b>	Do not eat, smoke or drink where material is handled, processed or stored. Wash hands before breaks and immediately after handling the product.			



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### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical States:</b>	[ ] Gas [ ] Liquid [ X ] Solid
<b>Appearance and Odor:</b>	White to Off-White, Tablet. faint halogenous odor.
<b>Melting Point:</b>	No data.
<b>Boiling Point:</b>	No data.
<b>Decomposition Temperature:</b>	> 160.00 C (320.0 F)
<b>Autoignition Pt:</b>	No data.
<b>Flash Point:</b>	No data.
<b>Explosive Limits:</b>	LEL: No data. UEL: No data.
<b>Specific Gravity (Water=1):</b>	1.8 - 2.0
<b>Vapor Pressure:</b>	9.35x10 <sup>(-3)</sup> PA at 25.0 C (77.0 F)
<b>Vapor Density (vs. Air=1):</b>	No data.
<b>Evaporation Rate:</b>	No data.
<b>Solubility in Water:</b>	0.22g/100mL at 25.0 C (77.0 F)
<b>Solubility Notes:</b>	Benzene: 2.5g/100g at 25C
<b>pH:</b>	No data.
<b>Percent Volatile:</b>	No data.

### 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	Oxidizing agents, Bases, combustible materials.
<b>Stability:</b>	Unstable [ ] Stable [ X ]
<b>Conditions To Avoid - Instability:</b>	heating to decomposition. Moisture, Contact with combustible materials may initiate decomposition of the material and emission of smoke.
<b>Incompatibility - Materials To Avoid:</b>	Oxidizing agents, Bases, combustible materials.
<b>Hazardous Decomposition or Byproducts:</b>	Nitrogen oxides, hydrogen chloride. hydrogen bromide. chlorine. Carbon oxides.
<b>Possibility of Hazardous Reactions:</b>	Will occur [ ] Will not occur [ X ]
<b>Conditions To Avoid - Hazardous Reactions:</b>	Product will not undergo polymerization.



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### 11. TOXICOLOGICAL INFORMATION

<b>Toxicological Information:</b>	No data available. CAS# 32718-18-6:
<b>Irritation or Corrosion:</b>	Acute toxicity, LD50, Oral, Rat, 929.0 MG/KG. Result: Behavioral: Somnolence (general depressed activity). Gastrointestinal: Other changes.  Acute toxicity, LC50, Inhalation, Rat, 1.100 MG/L, 4 H. Result: Skin and Appendages: Other: Hair. May cause skin irritation or damage.
<b>Sensitization:</b>	May cause sensitization by skin contact.
<b>Carcinogenicity/Other Information:</b>	Not included in NTP 13th Report on Carcinogens Not classified by IARC  Mutagenic by the Ames Test Mutagenic in the mouse lymphoma L5178Y test system. Non genotoxic in an in-vivo micronucleus test in mice Non genotoxic in an in-vivo liver unscheduled DNA synthesis (USD) assay.
<b>Carcinogenicity:</b>	NTP? No      IARC Monographs? No      OSHA Regulated? No

### 12. ECOLOGICAL INFORMATION

<b>General Ecological Information:</b>	The Ecotoxicity data for BCDMH is: 1.2 ppm (mg/L) for the Eastern oyster (Acute flow through)/96 hour/LC50 1.9 ppm (mg/L) for the Mysid shrimp (Acute flow through)/96 hour/LC50 0.4 ppm (mg/L) for the Rainbow trout (Static)/96 hour/LC50 0.46 ppm (mg/L) for the Bluegill sunfish (Static)/96 hour/LC50 1.6 ppm (mg/L) for the Sheepshead minnow (Acute flow through)/96 hour/LC50 0.75 ppm (mg/L) for the Daphnia magna (Static)/48 hour/LC50.
<b>Persistence and Degradability:</b>	BCDMH and the main degradation product DMH are biodegradable and do not persist in the environment.
<b>Bioaccumulative Potential:</b>	Based on low Kow values, i.e less than 1, BCDMH would not be predicted to significantly accumulate in aquatic organisms, or absorb to organic material in soil or sediment.
<b>Mobility in Soil:</b>	There will be no exposure of BCDMH to soil. The main degradation product DMH is mobile in soil.

### 13. DISPOSAL CONSIDERATIONS

<b>Waste Disposal Method:</b>	RCRA: It is the responsibility of the product user to determine at the time of disposal whether a material containing the product or derived from the product should be classified as a hazardous waste (40 CFR 261.20-24).  Disposal: Biocide or Pesticide wastes are acutely hazardous. Improper disposal or excess product or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Biocide/Pesticide or Environmental Control Agency, or the Hazardous Waste representative at your nearest EPA Regulation Office for guidance
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### 14. TRANSPORT INFORMATION

#### LAND TRANSPORT (US DOT):

**DOT Proper Shipping Name:** Oxidizing solid, corrosive, n.o.s.(Bromo-Chloro-5,5-Dimethylhydantoin)  
**DOT Hazard Class:** 5.1 (8) OXIDIZER, CORROSIVE  
**UN/NA Number:** UN3085 **Packing Group:** III



#### LAND TRANSPORT (Canadian TDG):

**TDG Shipping Name:** Oxidizing solid, corrosive, n.o.s.(Bromo-Chloro-5,5-DimethylHydantoin)  
**UN Number:** 3085 **Packing Group:** III  
**Hazard Class:** 5.1 (8) - OXIDIZER, CORROSIVE **TDG Classification:**

#### MARINE TRANSPORT (IMDG/IMO):

**IMDG/IMO Shipping Name:** Oxidizing solid, corrosive, n.o.s.(Bromo-Chloro-5,5-DimethylHydantoin)  
**UN Number:** 085] **Packing Group:** III  
**Hazard Class:** 5.1 (8) - OXIDIZER, CORROSIVE **IMDG MFAAG Number:**  
**Marine Pollutant:** Yes

**IMDG EMS Page:**

#### AIR TRANSPORT (ICAO/IATA):

**ICAO/IATA Shipping Name:** Oxidizing solid, corrosive, n.o.s.(Bromo-Chloro-5,5-DimethylHydantoin)  
**UN Number:** 3085 **Packing Group:** III  
**Hazard Class:** 5.1 (8) - OXIDIZER, CORROSIVE

### 15. REGULATORY INFORMATION

#### EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Ingredient(s)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
32718-18-6	Bromochloro-5,5-dimethylimidazolidine-2,4-dione	No	No	No

- This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:**
- Yes  No Explosive
  - Yes  No Flammable (gases, aerosols, liquid, or solid)
  - Yes  No Oxidizer (liquid, solid or gas)
  - Yes  No Self-reactive
  - Yes  No Pyrophoric (liquid or solid)
  - Yes  No Pyrophoric gas
  - Yes  No Self-heating
  - Yes  No Organic peroxide
  - Yes  No Corrosive to metal
  - Yes  No Gas under pressure (compressed gas)
  - Yes  No In contact with water emits flammable gas
  - Yes  No Combustible Dust
  - Yes  No (Physical) Hazard Not Otherwise Classified (HNOC)
  - Yes  No Acute toxicity (any route of exposure)
  - Yes  No Skin Corrosion or Irritation
  - Yes  No Serious eye damage or eye irritation



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- Yes  No Respiratory or Skin Sensitization
- Yes  No Germ cell mutagenicity
- Yes  No Carcinogenicity
- Yes  No Reproductive toxicity
- Yes  No Specific target organ toxicity (single or repeated exposure)
- Yes  No Aspiration Hazard
- Yes  No Simple Asphyxiant
- Yes  No (Health) Hazard Not Otherwise Classified (HNOC)

CAS #	Ingredient(s)	Canadian NPRI	Canadian IDL	Canadian DSL
32718-18-6	Bromochloro-5,5-dimethylimidazolidine-2,4-dione	No	No	No

### Regulatory Information:

US Regulatory information:

Primary EPA Registration # : 88714-4

This product is subject to registration under FIFRA.

All ingredients are reported in the EPA TSCA Inventory.

BCDMH is listed in TSCA inventory under the CAS number: 16079-88-2

TSCA: EPA Number P-94-34.

Canada Regulatory information:

The active ingredient (CAS# 32718-18-6) in K-BROM T is regulated under the Pest Control Products Act by the PMRA and is therefore exempt from registration as a substance under the DSL.

This product complies to the Pest Control Products Act and is considered exempt from from WHMIS classification.

Registration No.: 31033 Pest Control Products Act.

Canadian regulations: This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

## 16. OTHER INFORMATION

**Revision Date:** 04/27/2020

**Additional Information About** No data available.

**This Product:**

**Company Policy or**

**Disclaimer:**