

# MSDS Document

## Product BROMINE TABLETS

### 1. Chemical Product and Company Identification

Trade Name of this Product **BROMINE TABLETS**

MSDS ID **MSDS2388**

**Manufacturer**

Haviland Consumer Products, Inc.  
421 Ann Street N.W.  
Grand Rapids, MI 49504

**Phone Number**

(616) 361-6691

**Emergency Phone**

CHEMTREC (800) 424-9300

CHEMTREC International (703) 527-3887

**Revision Date** 4/28/2008

Health:	2
Fire:	1
Reactivity:	1
Specific	

### 2. Composition and Information on Ingredients

Ingredient	CAS Number	Weight %	ACGIH TLV	PEL	STEL
Bromochloro-5,5-dimethylhydantoin	32718-18-6	98 %	Not Established	Not Established	

### 3. Hazard Identification

**Emergency Overview**

Corrosive and Strong Oxidizer. Causes irreversible eye damage and skin burns. Eye contact may cause loss of vision. Irritating to nose and throat. May be fatal if inhaled. Harmful if absorbed through skin or swallowed.

**Health Effects**

Eye contact may cause severe irritation. Corneal burns on prolonged contact with dust or concentrated suspension. Prolonged skin contact may cause reddening and superficial necrosis. Burns may be severe if skin is wet or damp. Inhalation irritates mucous membranes. Dust will burn respiratory tissues severely. Ingestion will burn digestive tract tissues severely.

**Carcinogenicity**

None of the components present in this material are listed by IARC or NTP as a carcinogen.

**Reproductive Effects**

None known

**Routes of Entry**

Inhalation, Ingestion, Skin or Eye Contact

**4. First Aid Information****Ingestion**

Call a physician immediately. Do not induce vomiting. Dilute by drinking water or milk. Never give anything by mouth to an unconscious person.

**Skin Contact**

Flush with plenty of water for at least 15 minutes while removing contaminated clothing. Wash material off with soap and water. Get medical attention.

**Inhalation**

Remove to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**Eye Contact**

Flush immediately with plenty of water for at least 15 minutes, get medical attention.

**5. Fire Fighting Measures**

**Flash Point** N/A

**Extinguishing Media**

Use water only. Do not use dry chemicals, carbon dioxide, or foam.

**Special Fire Fighting Procedures**

Fire fighters and subjected personnel should wear full protective clothing and self-contained breathing apparatus. Hydrogen bromide or bromine may be released in fires. Dense black smoke upon burning.

**Unusual Fire Hazard**

Oxidizing material. Forms explosive mixtures with combustible, organic or other easily oxidizable materials. Combustion generates toxic fumes of hydrogen bromide, bromine gas, nitrogen oxides and hydrogen chloride.

**6. Accidental Release Measures****Spill and Leak Procedures**

Use protective goggles with side-shield, dust respirator and rubber gloves. Prevent dusting either shovel/sweep into clean, intact packaging for possible re-use or hose down concentrated spills. Keep away from surface water and ground contact. Toxic to fish and aquatic organisms.

## 7. Handling and Storage

### Handling Procedures

Do not breathe dust or spray mist. Do not get in eyes, on skin, or on clothing. Wear goggles with side shields, face shield or safety glasses; protective clothing and rubber gloves. Wear a MSHA/NIOSH mask or pesticide respirator. Wash thoroughly with soap and water after handling.

### Storage Procedures

Handle containers with care and keep them well closed. Containers retain product residue. Store in dark, well-ventilated, cool, dry location away from energy sources and incompatible materials. Store away from foodstuffs.

## 8. Exposure Controls and Personal Protection

### Engineering Controls

Use local exhaust ventilation with a minimum capture velocity of 150 ft./min. at the point of dust or mist evolution.

### Eye Protection

Chemical safety goggles

### Protective Gloves

Rubber or other impervious materials.

### Respiratory Protection

If ventilation is not sufficient to effectively prevent buildup of dust, appropriate NIOSH/MSHA respiratory protection must be provided.

### Other Protective Equipment

Wear appropriate clothing to prevent skin exposure. A safety shower and eye bath should be available.

## 9. Physical and Chemical Properties

Physical State	Solid
Color/Appearance	White tablets
Odor	Halogen odor
pH	4.0 (0.1% soln in DI water)
Boiling/Cond. Point	Undetermined
Melting/Freezing Point	Undetermined
Solubility	0.2 g/100ml at 25°C
Vapor Density	Not Applicable
Vapor Pressure	Not Applicable

## 10. Stability and Reactivity

### Chemical Stability

Stable under normal conditions

**Conditions to Avoid**

Mixing with anything but water. Heating above 160°C.

**Incompatible Materials**

Paints, petroleum and organic chemicals, oxidizing agents, and bases.

**Hazardous Decomposition Products**

Bromine and chlorine containing gases, hydrogen bromide and hydrogen chloride.

**Hazardous Polymerization**

Will not occur.

**11. Toxicological Information****ACUTE TOXICITY:**

LD / LC50 values that are relevant for classification:

Oral: LD50: 468 mg/kg (rat)

Dermal: LD50: > 2000 mg/kg (rabbit)

**PRIMARY IRRITANT EFFECT:**

On the skin: Caustic effect of burns on skin and mucous membranes.

On the eye: Strong irreversible caustic effect.

**SENSITIZATION:**

Intensive exposure may cause allergic reactions in certain sensitive individuals.

**ADDITIONAL TOXICOLOGICAL INFORMATION:**

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Study results from a material similar to that represented by this MSDS.

**12. Ecological Information****GENERAL NOTES:**

This product is toxic to fish and aquatic organisms. Do not allow product to reach ground water, water course or sewage system, even in small quantities. 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.

**13. Disposal Considerations****Waste Disposal**

Observe all federal, state and local regulations. Dispose in approved landfill sites or an approved incinerator. Triple rinse the container then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or incinerate.

**14. Transportation Information****DOT Shipping Name**

Oxidizing solid, n.o.s. (Bromochloro-5, 5-dimethylhydantoin)

**Hazard Class**

5.1, Oxidizer

**UN Number**

UN1479

**Packing Group**

PG II

NOTE: Oxidizers in Packing Group II in inner packagings not over 1.0 L (0.3 gallon) for liquids or 1.0 kg (2.2 pounds) for solids, packed in strong outer packagings, may be renamed "Consumer Commodity" and reclassified as ORM-D material. Total package may not exceed 30 kg (66 pounds) gross weight.

## 15. Regulatory Information

**TSCA**

Hazardous Component(s) subject to reporting on the TSCA List.

## 16. Other Information

EPA Reg. No. 57787-32

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