



HASA HI-TEMP BROMINATING TABLETS FOR SPAS

Material Safety Data Sheet

Emergency 24 Hour Telephone: CHEMTREC 800.424.9300

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HASA Hi-Temp BROMINATING TABLETS FOR SPAS
Material Safety Data Sheet MSDS No. 401

PRODUCT IDENTIFICATION

Product:	Hasa Hi-temp Brominating Tablets for Spas
Chemical Family:	Halogenated hydantoin
CAS Registry Number:	16079-88-2

TRANSPORTATION DATA

U.S. Department of Transportation - 49 CFR

Proper Shipping Name:	Oxidizing Solid, N.O.S.
Technical Name:	1-bromo-3-chloro-5, 5-dimethylhydantoin
Hazard Class / Division Number:	5.1
ID Number:	1479
Packing Group:	II
Emergency Telephone Number:	Chemtrec 800-424-9300

HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

Chemical or Common Name	Percent	CAS #	EINECS #
1-bromo-3-chloro-5, 5-dimethylhydantoin	96	16079-88-2	240-230-0

PHYSICAL / CHEMICAL CHARACTERISTICS

Odor:	Faint halogen odor.
Appearance:	White tablets
Total acidity:	3.5 (0.1% solution in DI water) solid
Physical state:	Solid
Thermal Decomposition:	(293°F) to (302°F)
Solubility in Water:	0.15/100 g water

Density:	60.1 lb/ft ³
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FIRE AND EXPLOSION HAZARD DATA

Extinguishing Media:	In case of fire or smoke, call the fire department. Do not attempt to extinguish the fire without a self-contained breathing apparatus. Do not let the fire burn. Flood with copious amounts of water. DO NOT use ABC or other dry chemical extinguishers since there is the potential for a violent reaction.
Special Fire-fighting Procedures:	General Hazard: In large fires fueled by other materials, this product may smolder for prolonged periods emitting a dense black smoke. 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. Fires fueled by other materials may release hydrogen bromide, bromine, hydrogen chloride or chlorine. Wear self-contained breathing apparatus. Ammonium phosphate fire extinguishers should not be used.
Unusual Explosion Hazards:	A dust explosion severity determination was performed using the Harmann Dust Explosibility Bomb designed at the U.S. Bureau of Mines. The product was determined not to be ignitable.

REACTIVITY DATA

Stability:	Stable
Conditions to Avoid:	High temperature. Poor ventilation. Contamination with other chemicals. Moisture.
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; floor sweeping compounds; calcium hypochlorite; other swimming pool/spa chemicals in their concentrated form; alkalis. Avoid contact with all other chemicals.
Hazardous Decomposition or By-Products:	Hydrogen bromide, bromine, hydrogen chloride, chlorine
Hazardous Polymerization:	Will Not Occur.

PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material is Spilled Or Released:	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 material 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, disposal or cleaning of equipment. Dispose of according to local, state and federal regulations.
Waste Disposal Method:	Pesticides wastes are toxic. Improper disposal of excess pesticide 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. Do not put product, spilled product, or filled or partially filled containers into the trash or waste compactor. Contact with incompatible materials could cause a reaction or fire.
Empty Container:	Do not reuse container. Rinse thoroughly before discarding in trash.

Precautions to Be Taken in 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 any dispensing device containing remnants of any other 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 of 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. Do not store above 125°F (52°C).

NFPA Storage Classification:	NFPA Oxidizer Class 2
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HEALTH HAZARD DATA	
Immediate Concerns:	<u>DANGER</u> : 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. Irritating to nose and throat. Avoid breathing dust and fumes. Remove contaminated clothing and wash before reuse.
HMIS/NFPA Codes:	Health: 3
	Fire: 1
	Reactivity: 1
	Special: B
Primary Route(s) of Entry:	Ingestion: (X)
	Inhalation: (X)
	Skin Contact: (X)
	Eye Contact: (X)
Medical Conditions Aggravated by Exposure:	Existing dermatitis may be aggravated by exposure.
Potential Health Effects:	Ingestion: May be fatal if swallowed.
	Inhalation: Irritating to nose and throat. Avoid breathing dust or fumes.
	Skin Contact: DANGER: Highly Corrosive. Causes skin damage. Do not get on skin.
	Eye Contact: DANGER: Highly Corrosive. Causes eye damage. Do not get in eyes.
Emergency and First Aid Procedures:	Ingestion: If swallowed: Drink large amounts of water. Do not induce vomiting. Avoid alcohol. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Call a physician or poison control center immediately.
	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.
	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.
	Eye Contact: If contact with eyes occurs: Immediately flush with cold water for at least 15 minutes. Then get immediate medical attention.
	Notes to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.
Comments on Health:	There are no known chronic hazards.

CONTROL MEASURES	
Exposure Control/Personal Protection:	
Respiratory:	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.
Ventilation:	General room ventilation plus local exhaust should be used to minimize exposure to dust and vapors.
Skin:	Wear rubber gloves when handling this product. Avoid contact with the skin.
Eye:	Wear goggles or safety glasses with side shields when handling this product.
Hygiene:	Remove and wash contaminated clothing before reuse.
Other:	Facilities storing or utilizing this material should be equipped with an eyewash and safety shower.

TOXICOLOGICAL INFORMATION		
Acute:	Eyes:	Toxicological studies indicate this product to be corrosive to eyes.
	Dermal LDSO:	The dermal LD50 is greater than 2.0 g/kg (rabbit). The primary skin irritation index is 6.1 and the product is considered corrosive to skin.
	Oral LD50:	578 mg/kg (rat)

ECOLOGICAL INFORMATION	
Ecotoxicological information:	
This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or their waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System 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.	

REGULATORY INFORMATION	
United States:	
SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT) 313 Reportable Ingredients: This product or its components are not listed.	
CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT) CERCLA Regulatory: This product or its components are not listed.	
TSCA (TOXIC SUBSTANCE CONTROL ACT) TSCA Regulatory: This product or its components are not subject to export notification. TSCA Status: This product or its components are listed on the TSCA inventory.	
OSHA HAZARD COMMUNICATION RULE: Product is hazardous by definition of the Hazardous Communication Standard.	
CLEAN WATER ACT: Not Listed.	
FIFRA (FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT): This product is a registered pesticide.	
SDWA (SAFE WATER DRINKING WATER ACT): Not listed.	
CLEAN AIR ACT: 40 CFR Part 68: Not listed.	

State Regulations:

PROPOSITION 65 STATEMENT (California Only):

Do not swallow water in pools, hot tubs, or spas. Sodium Bromide(or "The active ingredient in this product") may react with certain other substances in pool, hot tub, and spa waters from bromates. Bromates are known by the State of California to cause cancer when administered by the oral (drinking or ingesting) route. Read and follow label directions and use care when handling or using this product.

This warning is provided pursuant to Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986, chapter 6.6 of the California Health and Safety Code, which requires the Governor of California to publish a list of chemicals "known to the state to cause cancer or reproductive toxicity." This list is compiled in accordance with the procedures established under the Proposition, and can be obtained on the internet from California's Office of Environmental Health Hazard Assessment at <http://www.oehha.ca.gov>. There are over 700 chemical substances on this list.

ENVIRONMENTAL HAZARDS (PR NOTICE 93-10)

This product is toxic to fish and aquatic organisms. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not discharge effluent containing this product into lakes, streams, ponds, 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.

ADDITIONAL INFORMATION

ALWAYS COMPLY WITH ALL APPLICABLE INTERNATIONAL, FEDERAL, STATE AND LOCAL REGULATIONS REGARDING THE TRANSPORTATION, STORAGE, USE AND DISPOSAL OF THIS CHEMICAL.

Due to the changing nature of regulatory requirements, the REGULATORY INFORMATION listed in Section X of this document should NOT be considered all- inclusive or authoritative. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

Please Note: The information contained herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge and belief. NO WARRANTY OR GUARANTEE, expressed or implied, is made regarding the product performance, product stability, or as to any other condition of use, handling, transportation, and storage. Customer use, handling, transportation, and storage may involve additional safety and/or performance considerations. Our technical personnel will be happy to respond to questions regarding safe handling, storage, transportation and use procedures. The safe handling, storage, transportation and use procedures remain the sole responsibility of the customer. No suggestions for handling, storage, transportation or use are intended as or to be construed as recommendations which may infringe on any existing patents or violate any Federal, State, and/or local law and/or regulation, ordinance, standard, etc.. This Material Safety Data Sheet has been prepared by HASA, Inc. staff from test reports and other information available in the public domain.