Safe. Clean. Clear.

HASA BROMINATING TABLETS

Safety Data Sheet

Emergency 24 Hour Telephone: **CHEMTREC 800.424.9300**

Corporate Headquarters: HASA Inc.
25152 Springfield Court, Suite 300
Valencia, CA 91355
Telephone • 661.259.5848
Fax • 661.259.1538

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION			
1.1	**Product Identification:**		
	1.1.1	**Product Name:**	HASA BROMINATING TABLETS
	1.1.2	**CAS #:** (Chemical Abstract Service)	16079-88-2
	1.1.3	**RTECS:** (Registry of Toxic Effects of Chemical Substances)	MT9195400
	1.1.4	**EINECS:** (European Inventory of Existing Commercial Substances)	240-230-0
	1.1.5	**Chemical Name:**	1-Bromo-3-Chloro-5, 5-Dimethylhydantoin
	1.1.6	**Chemical Formula:**	$C_5H_6BrClN_2O_2$
	1.1.7	**Synonym:**	3-Bromo-1-chloro-5,5-dimethyl-2,4-imidazolidinedione
	1.1.8	**Chemical Family:**	Halogenated hydantoin
	1.1.9	**Molecular Weight:**	241.47 g/mol
1.2	**Recommended Use:**		It is widely used as a sanitizer for pools, spas and recreational water.
1.3	**Company Identification:**		HASA Inc. 25152 Springfield Court, Suite 300 Valencia, CA 91355
1.4	**Emergency Assistance:**		**CHEMTREC**: 1-800-424-9300 (24 Hour Emergency Telephone)
1.5	**Non-Emergency Assistance:**		661-259-5848 (8 AM – 5 PM PST / PDT)

SECTION 2: HAZARD(S) IDENTIFICATION

HEALTH HAZARD	Skin Corrosion / Irritation Acute Toxicity (Oral) Specific Target Organ Toxicity	Category 1 Category 4 Category 3
PHYSICAL HAZARD	Oxidizing Solids	Category 2
SYMBOL		
SIGNAL WORD	**DANGER**	
HAZARD STATEMENT	Causes severe skin burns and eye damage. Harmful if swallowed. May intensify fire, oxidizer. May cause respiratory irritation.	
PRECAUTIONARY STATEMENT	**Prevention**	
	Do not breathe dusts or mists. Wash hands thoroughly after handling. Wear protective gloves / protective clothing / eye protection / face protection. Do not eat, drink or smoke when using this product. Avoid breathing dust. Use only outdoors or in a well-ventilated area. Keep away from heat. Keep / Store away from clothing / combustible materials. Take any precautions to avoid mixing with combustibles.	
	Response	
	IF SWALLOWED: Rinse mouth. Do not induce vomiting. Call a POISON CENTER or doctor if you feel unwell. **IF ON SKIN** (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower. Wash contaminated clothing before reuse. **IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor. **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If medical advice is needed, have product container or label at hand. **IN CASE OF FIRE:** Use large volumes of water to extinguish.	
	Storage & Disposal	
	Store in a well ventilated place. Keep container tightly closed. Store lock up. **Dispose of contents and containers** in accordance with local / regional / national / international regulations.	

SECTION 3: COMPOSITION INFORMATION ON INGREDIENTS

Ingredient	CAS No.	Approx. Wt.%
1-bromo-3-chloro-5, 5-dimethylhydantoin	16079-88-2	96%

SECTION 4: FIRST AID MEASURES

4.1	**IF IN EYES**	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
4.2	**IF ON SKIN OR CLOTHING**	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
4.3	**IF INHALED**	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
4.4	**IF SWALLOWED**	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5: FIRE FIGHTING MEASURES

5.1	**General Hazard:**	May intensify fire; oxidizer.
5.2	**Hazardous combustion products:**	May include and are not limited to: Oxides of nitrogen. Hydrogen chloride. Hydrogen bromide.
5.3	**Suitable Extinguishing Media:**	Flood with large volumes of water.
5.4	**Unsuitable Extinguishing Media:**	DO NOT use dry chemical fire extinguishing agents containing ammonium compounds (such as some A:B:C agents). An explosive compound can be formed.
5.5	**Protective equipment and precautions for firefighters:**	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
5.6	**Fire-fighting Procedures:**	In the event of fire, cool tanks with water spray. Move containers from fire area if you can do so without risk. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

SECTION 6: ACCIDENTAL RELEASE MEASURES

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 container 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. (See Section 13)

SECTION 7: HANDLING AND STORAGE

7.1	**Handling:**	**STRONG OXIDIZING AGENT:** • Avoid contact with skin, eyes and clothing. • Avoid breathing dust. • Avoid breathing vapors. • Do not mix with other chemicals. • Mix only with water. • Never add water to this product. • Always add product to large quantities of water. • When using automatic feeding devices, always follow manufacturer's directions as to the proper addition of sanitizer product to brominators. • Use only clean and dry utensils. • Do not add this product to any dispensing devices 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 with large volumes of water. • Wash hands thoroughly with soap and water after handling and before eating, drinking or using tobacco. • Do not handle until all safety precautions have been read and understood. • Do not contaminate water, food or feed by storage or disposal or cleaning of equipment.
7.2	**Storage:**	Keep this product dry in original tightly closed container when not in use. Store in a cool, dry, well ventilated area away from heat or open flame. In case of decomposition, isolate container if possible and flood area with large amounts of water to dissolve all material before discarding this container. Keep area ventilated until all fumes are gone. Do not contaminate food or feed by storage or disposal. Do not reuse container, but place in trash collection. Rinse thoroughly before discarding in trash.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION			
8.1	**Engineering Controls:**		Ventilation: Local Exhaust: General room ventilation plus local exhaust should be used to minimize exposure to dust/vapors.
8.2	**Personal Protection:**		
	8.2.1	**Respiratory:**	A respiratory protection program that meets OSHA CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace condition warrant a respirator's use.
	8.2.2	**Eyes and Face:**	Wear goggles or safety glasses with side shields when handling this product.
	8.2.3	**Skin:**	Wear rubber gloves when handling this product. Avoid contact with skin
	8.2.4	**Work / Hygienic Practices:**	Remove and wash contaminated clothing before reuse.
	8.2.5	**Other Precautions:**	Facilities storing or utilizing this material should be equipped with an eyewash and safety shower.
8.3	**Exposure Limits:**		
	8.3.1	**OSHA Guidelines:**	Federal guidelines treat the ingredient(s) in this product as a nuisance dust, as no product-specific guidelines have been issued for exposure. As with all nuisance dusts, worker breathing zone concentrations should be measured by validated sampling and analytical methods.
	8.3.2	**OSHA PNOR:** (Particulates Not Otherwise Regulated):	OSHA (PEL / TWA): ▪ 15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES		
9.1	**Physical State and Appearance:**	White tablets.
9.2	**Odor:**	Faint halogen odor.
9.3	**Vapor Pressure** (mm Hg)**:**	No information available
9.4	**Odor Threshold:**	No information available
9.5	**pH** (0.1% aqueous solution)**:**	4.5
9.6	**Melting point:**	120°C - 148°C (248°F - 298°F)
9.7	**Solubility in Water** (@ 25°C)**:**	0.15 g/100 ml
9.8	**Boiling Point:**	Not applicable.
9.9	**Flash point:**	No information available
9.10	**Evaporation rate:**	Not applicable.
9.11	**Flammability (solid, gas):**	NFPA Class II Oxidizer.
9.12	**Upper/lower flammability or explosive limits:**	No information available
9.13	**Vapor pressure:**	Not applicable.
9.14	**Vapor density:**	Not applicable.
9.15	**Relative density:**	0.87 – 0.92 gram/cm^3
9.16	**Partition Coefficient** (n-octanol/water)**:**	Not applicable.
9.17	**Auto-ignition temperature:**	No information available
9.18	**Decomposition temperature:**	145°C - 150°C
9.19	**Viscosity:**	Not applicable.

SECTION 10: STABILITY AND REACTIVITY		
10.1	**Stability:**	Stable under normal use and storage conditions.
10.2	**Hazardous Decomposition or Byproducts:**	Hydrogen halides, bromine, chlorine, carbon oxides, nitrogen oxides.
10.3	**Conditions to Avoid:**	High temperature. Poor ventilation. Contamination. Moisture/high humidity.
10.4	**Materials to Avoid:**	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.
10.5	**Hazardous Polymerization:**	Will not occur under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1	**Routes of Entry:**		Eye & skin contact, inhalation, ingestion.
11.2	**Acute Toxicity:**		
	11.2.1	**Oral:** (LD_{50})	578 mg/kg (rat)
	11.2.2	**Dermal:** (LD_{50})	>2000 mg/kg (rabbit). The primary skin irritation index is 6.1 and the product is considered corrosive to skin.
	11.2.3	**Eyes:**	This product causes serious eye damage to laboratory animals (rabbit).
	11.2.4	**Skin:**	This product causes skin burns to laboratory animals (rabbit).
	11.2.5	**Sensitization:**	Did not cause sensitization on laboratory animals.
11.3	**Chronic Toxicity:** No known chronic effects.		
11.4	**Carcinogenic [Cancer Potential] Information:**		
	11.3.1	**NTP** (National Toxicological Program 6th Annual Report on Carcinogens):	Not Listed.
	11.3.2	**IARC** (International Agency for Research on Cancer Monographs, V. 1-100):	Not Listed.
	11.3.3	**OSHA** (Occupational Safety & Health Administration):	Not Listed.
	11.3.4	**ACGIH** (American Conference of Governmental Industrial Hygienists):	Not Listed.

SECTION 12: ECOLOGICAL INFORMATION

This product is toxic to fish and 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 (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 sewer treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

Toxicity to fish	LC_{50}: 0.87 mg/l (Exposure time: 96 h)
Toxicity to daphnia and other aquatic invertebrates	LC_{50}: 0.46 mg/l (Exposure time: 48 h)
Biodegradation	Readily biodegradable.

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of waste material in compliance with all federal, state, and local regulations. Improper disposal of excess product, 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 Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance. For registered pesticides, contact your State Pesticide Agency. 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, but place in trash collection. Rinse thoroughly before discarding in trash.

GENERAL COMMENTS: Do not contaminate water, food, or feed by storage and disposal.

SECTION 14: TRANSPORT INFORMATION

14.1	**US D.O.T.**		**Inside packages up to 2.2 pounds.**	**Inside packages over 2.2 pounds.**
	14.1.1	**Shipping Name:**	Consumer Commodity	Oxidizing Solid, n.o.s. (Halogenated Hydantoins)
	14.1.2	**UN ID Number:**	ORM-D	UN 1479
	14.1.3	**Hazard Class:**	Not applicable	5.1
	14.1.4	**Packing Group:**	None required	PG II
14.2	**"Materials of Trade" Exceptions.** Certain hazardous materials transported in small quantities as part of a business are subject to less regulation, because of the limited hazard they pose. These materials are known as Materials of Trade. The regulations that apply to MOTs are found in 49 CFR § 173.6.			
14.3	**IATA** (International Air Transport Association):			
	14.3.1	**Shipping Name:**	Oxidizing Solid, n.o.s. (Halogenated Hydantoins)	
	14.3.2	**UN ID Number:**	UN 1479	
	14.3.3	**Hazard Class:**	5.1	
	14.3.4	**Packing Group:**	PG II	
14.4	**IMO** (International Maritime Organization) **Dangerous Goods**			
	14.4.1	**Shipping Name:**	Oxidizing Solid, n.o.s. (Halogenated Hydantoins)	
	14.4.2	**UN ID Number:**	UN 1479	
	14.4.3	**Hazard Class:**	5.1	
	14.4.4	**Packing Group:**	PG II	

SECTION 15: REGULATORY INFORMATION

15.1	**U.S. Regulations:**		
	15.1.1	**OSHA HAZCOM** (Hazard Communication)	This product is considered hazardous under the HAZCOM Standard (29 CFR 1910.1200)
	15.1.2	**OSHA PSM** (Process Safety Management)	Not regulated under PSM Standard (29 CFR 1910.119)
	15.1.3	**EPA FIFRA** (Federal Insecticide, Fungicide and Rodenticide Act)	EPA Registration #: 69681-16-10897
	15.1.4	**SARA (**Superfund Amendments and Reauthorization Act) **Title III Section 311/312**	Fire Hazard Acute Health Hazard Reactivity Hazard
	15.1.5	**SARA Title III Section 313**	This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.
	15.1.6	**EPA CERCLA** (Comprehensive Environmental Response, Compensation, and Liability Act)	This product or its components are not listed.
	15.1.7	**EPA TSCA** (Toxic Substance Control Act)	Listed on the inventory.
	15.1.8	**EPA RCRA** (Resource Conservation and Recovery Act)	See Section 13.
	15.1.9	**EPA RMP** (Risk Management Plan)	Not regulated. (40 CFR 68.130)
15.2	**State of California Regulations:**		
	15.2.1	**Cal ARP** (California Accidental Release Prevention)**:**	Not regulated.
	15.2.2	**CDPR** (California Department of Pesticide Regulation):	CA Registration #: 69681-16-10897
15.3	**Canada Regulations:**		
	15.3.1	**WHMIS** (Workplace Hazardous Materials Information System)**:**	
		15.3.1.1 **WHMIS Classification:**	No results for this search in WHMIS Classifications.
		15.3.1.2 **WHMIS Health Effects Criteria Met by this Chemical:**	No results for this search in WHMIS Classifications.
	15.3.2	**DSL** (Domestic Substances List):	The substance is specified on the DSL.
15.4	**International Inventory:**		
	15.5.1	**AICS** (Australian Inventory of Chemical Substances):	On inventory or in compliance with inventory.
	15.5.2	**KECI** (Korean Existing Chemicals Inventory):	On inventory or in compliance with inventory.
	15.5.3	**PICCS** (Philippine Inventory of Chemicals and Chemical Substances):	On inventory or in compliance with inventory.
	15.5.4	**IECSC** (Inventory of Existing Chemical Substances in China):	On inventory or in compliance with inventory.
	15.5.5	**NZIoC** (New Zealand Inventory of Chemicals):	On inventory or in compliance with inventory.

SECTION 16: OTHER INFORMATION

16.1	**HMIS III** (Hazardous Materials Identification System):			
	16.1.1	**HEALTH**	**3**	
	16.1.2	**FLAMMABILITY**	**0**	
	16.1.3	**PHYSICAL HAZARD**	**1**	
	16.1.4	**PERSONAL PROTECTION**	See Section 8.	
16.2	**NFPA 704** (National Fire Protection Association):			
	16.2.1	**HEALTH**	**3**	
	16.2.2	**FLAMMABILITY**	**0**	
	16.2.3	**INSTABILITY**	**1**	
	16.2.4	**SPECIAL**	**OX**	
16.3	**International Fire Code / International Building Code:**		No information.	
16.4	**ANSI** (American National Standards Institute):			
	16.4.1	**Hazardous Industrial Chemicals -** MSDS-Preparation:	Complies with **ANSI Z400.1 – 2004**.	
	16.4.2	**Hazardous Industrial Chemicals -** Precautionary Labeling:	Complies with **ANSI Z129.1 – 2006**.	

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