



HASA HI-TEMP SPA BROMINE RESERVE

Material Safety Data Sheet

Emergency 24 Hour Telephone: **CHEMTREC 800.424.9300**

Corporate Headquarters: Hasa Inc.
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Saugus, California 91350
Telephone • 661.259.5848
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SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1	Product Identification:	
1.1.1	Product Name:	HASA HI-TEMP SPA BROMINE RESERVE
1.1.2	CAS # (Chemical Abstracts Service Registry Number):	7647-15-6
1.1.3	EINECS (European Inventory of Existing Commercial Substances):	231-599-9
1.1.4	RTECS (Registry of Toxic Effects of Chemical Substances):	VZ3150000
1.1.5	Synonym:	Bromide salt of sodium; natrium bromide.
1.1.6	Chemical Name:	Sodium Bromide
1.1.7	Chemical Formula:	NaBr
1.1.8	Chemical Family:	Inorganic bromide salt of sodium.
1.2	Recommended Uses:	Sodium Bromide is used in conjunction with chlorine and sodium hypochlorite in wastewater treatment process.
1.3	Company Identification:	Hasa Inc. 23119 Drayton Street Saugus, California 91350
1.4	Emergency Telephone Number:	CHEMTREC (24 Hour): 1-800-424-9300
1.5	Non-Emergency Assistance:	661-259-5848 (8 AM – 5 PM PST / PDT)

SECTION 2: EMERGENCY OVERVIEW and HAZARD IDENTIFICATION

2.1	Emergency Overview.	Eye and skin irritant. The amount of damage depends upon the contact time.
2.2	Acute Hazard:	
2.2.1	Eye Contact:	Mild Irritant
2.2.2	Skin Contact:	Prolonged or repeated skin contact may cause slight irritation to abraded skin. Not irritant to intact skin.
2.2.3	Inhalation:	Repeated or prolonged exposure can cause irritation to upper respiratory tract, nose, and throat.
2.2.4	Ingestion:	Abdominal pain, nausea and vomiting. May cause falling asleep, muscular incoordination, and respiratory depression.
2.3	Chronic Hazard:	Repeated skin contact may cause dermatitis.

SECTION 3: COMPOSITION INFORMATION ON INGREDIENTS

Ingredient	CAS No.	Approx. Wt. %
Sodium Bromide	7647-15-6	98%

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	Flammability:	Nonflammable.
5.2	Auto-Ignition Temperature:	Not applicable.
5.3	Flash Point:	Not applicable.
5.4	Flammable Limits:	Not applicable.
5.5	Extinguishing Media:	Material is not combustible. Use extinguishing media appropriate to surrounding fire conditions..
5.6	Products of Combustion:	Decomposes at 800° C, with the release of toxic, irritant bromine fumes; hydrogen bromide, and sodium oxide.
5.7	Fire Hazards in Presence of Various Substances:	Not applicable.
5.8	Special Fire-fighting Procedures:	Use water spray to cool containers exposed to fire. Minimize exposure. Do Not breathe fumes. Contain run-off. In closed spaces, don self-contained breathing apparatus in positive pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	Small Spill:	If possible place in pool or spa water. If not possible, sweep up, place in a plastic bag for disposal.
6.2	Large Spill:	Sweep up or vacuum. Place in plastic bag for disposal.

SECTION 7: HANDLING AND STORAGE

7.1	Handling:	Do not breathe dust. Do not get in eyes, on skin, or on clothing.
7.2	Storage:	Store in a cool, dry and well-ventilated area away from incompatible materials. Keep in securely fastened containers.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1	Engineering Controls:	Use in a well-ventilated area.
8.2	Personal Protection:	
	8.2.1 Eyes:	Chemical safety goggles.
	8.2.2 Respiratory:	Dust respirator Be sure to use an approved/certified respirator or equivalent.
	8.2.3 Skin & Body:	Body covering clothes & boots.
	8.2.4 Hands:	Protective rubber gloves.
8.3	Exposure Limits - EPA Guideline:	
	8.3.1 Dietary:	Dietary exposure to sodium bromide is not expected to occur as a result of pesticidal uses on food since no currently registered products involve food and animal feed uses.
	8.3.2 Occupational & Residential:	The potential exposure for loader/mixer/applicator exists primarily from handling the liquid formulation of sodium bromide. This exposure is considered as minimal or low by EPA. No human toxicity concerns exist.
8.4	Exposure Limits - 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.
	8.4.1 OSHA PNOR (Particulates Not Otherwise Regulated):	OSHA (PEL / TWA): ▪ 15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1	Physical State and Appearance:	White crystalline solid; hygroscopic, but not deliquescent.
9.2	Odor:	Odorless
9.3	Odor Threshold:	Odorless
9.4	Taste:	No information available
9.5	Molecular Weight:	102.9 g/mole
9.6	pH (46% aqueous solution):	7 (<i>Sodium bromide is a neutral salt</i>).
9.7	Boiling Point:	1390°C
9.8	Melting Point:	755°C
9.9	Critical Temperature:	No information available
9.10	Density (g/cm ³):	3.21
9.11	Bulk Density (lb/ft ³):	200.4
9.12	Decomposition Temperature:	Decomposes at 800 °C.
9.13	Vapor Pressure (mm Hg):	1 mm Hg @ 806 °C
9.14	Volatility:	No information available
9.15	Water/Oil Distribution Coefficient:	No information available
9.16	Dissociation Constant:	As a water solution of a strong electrolyte, sodium bromide is 100% dissociated.
9.17	Solubility in Water (@ 25 °C):	95 g/100 g water
9.18	Solubility in 95% Ethanol (@ 25 °C):	7 g/100g
9.19	Solubility in Methanol (@ 25 °C):	14.8 g/100 g

SECTION 10: STABILITY AND REACTIVITY

10.1	Stability:	Stable under normal use and storage conditions
10.2	Instability Temperature:	Avoid temperatures above 800 °C
10.3	Conditions of Instability:	Incompatible materials, moisture.
10.4	Incompatibility:	Strong acids, strong oxidants, heavy metal salts; reacts explosively with bromine trifluoride.
10.5	Corrosivity:	Not corrosive in presence of glass.
10.6	Special Remarks on Reactivity:	None
10.7	Special Remarks on Corrosivity:	None
10.8	Polymerization:	Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION		
11.1	Routes of Entry:	Eyes and nose. Unlikely ingested.
11.2	Acute Toxicity:	
	11.2.1 Acute Oral Toxicity (LD₅₀):	4200 mg/kg (rat) - (EPA Toxicity category III)
	11.2.2 Acute Dermal Toxicity (LD₅₀):	2000 mg/kg (rabbit) - (EPA Toxicity category III).
	11.2.3 Eye Irritation:	Mild - (EPA Toxicity category IV)
	11.2.4 Inhalation:	Lack of potential inhalation exposure to humans.
	11.2.5 Dermal Irritation:	Mild - (EPA Toxicity category IV)
	11.2.6 Dermal Sensitizer:	Not a sensitizer (guinea pig).
11.3	Chronic Effects on Humans:	The risk from occupational exposure is considered by EPA to be minimal based on the low toxicity of sodium bromide.
11.4	Overexposure Effects on Humans:	
	11.4.1 Ocular:	Mild Irritant
	11.4.2 Dermal:	Not irritant to intact skin. Slightly irritant on prolonged contact to abraded skin.
	11.4.3 Inhalation:	Irritant to upper respiratory tract.
	11.4.4 Ingestion:	Abdominal pain, nausea and vomiting. May cause falling asleep, muscular incoordination and respiratory depression.
11.5	Special Remarks on Chronic Effects on Humans:	Sodium bromide has been used for many years in prescription and proprietary sedatives. Consequently, the health effects of sodium bromide following oral exposure are well known. The central nervous system depressant effects of the bromide salt in humans occur when administration is repeated daily at dose levels on the order of 1 to 2 grams per day. The effect is slowly reversed when dosing is stopped. Bromide ion acts in the organism by replacing chloride ion and inhibiting depolarization and transmission in nerve cells.
11.6	Carcinogenic [Cancer Potential] Information:	
	11.6.1 NTP (National Toxicological Program 6 th Annual Report on Carcinogens):	Not Listed.
	11.6.2 IARC (International Agency for Research on Cancer Monographs, V. 1-100):	Not Listed.
	11.6.3 Proposition 65, California only: (Safe Drinking Water and Toxic Enforcement Act of 1986):	Not Listed.

SECTION 12: ECOLOGICAL INFORMATION

12.1	Ecotoxicity:	
12.1.1	Fish (LC₅₀)	Rainbow Trout (96-hour LC ₅₀) - >1000 mg/l Bluegill sunfish (96-hour LC ₅₀) - >1000 mg/l
12.1.2	Invertebrate (LC₅₀)	Daphnia Magma (48-hour LC ₅₀) - > 1000 mg/l
12.1.3	Avian (LD₅₀)	Bobwhite quail (acute oral LD ₅₀) - >2250 mg/kg Bobwhite quail (dietary LC ₅₀) - >5633 ppm Mallard duck (dietary LC ₅₀) - >5633 ppm
12.2	Environmental Fate:	
12.3	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.
12.4	Bioaccumulation:	
12.5	Biodegradation:	
12.6	Toxicity of the Products of Biodegradation:	
		Not toxic.

SECTION 13: DISPOSAL CONSIDERATIONS

Add into a large vessel containing water and drain into sewer with ample water. Avoid access to streams, lakes or ponds. Observe all federal, state and local environmental regulations when disposing of this material.

SECTION 14: TRANSPORT INFORMATION

14.1	U.S. DOT Classification:	Not regulated.
14.2	FMCSA: (Federal Motor Carrier Safety Administration)	Not Listed (Appendix A, 49 CFR Part 355).

SECTION 15: REGULATORY INFORMATION		
15.1	U.S. Regulations:	
15.1.1	OSHA HAZCOM (Hazard Communication)	Not regulated 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)	Not regulated as a pesticide.
15.1.4	EPA EPCRA (Emergency Planning and Community Right-to-Know Act)	Not regulated.
15.1.5	EPA TSCA (Toxic Substance Control Act)	Listed on the inventory.
15.1.6	EPA RCRA (Resource Conservation and Recovery Act)	This material does not meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40 CFR 261.33. The toxicity characteristic however, has not been evaluated by the Toxicity Characteristic Leaching Procedure (TCLP).
15.1.7	EPA RMP (Risk Management Plan)	Not regulated. (40 CFR 68.130)
15.2	State of California Regulations:	
8.4.2	Prop 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):	Not Listed
8.4.3	CalARP (California Accidental Release Prevention):	Not regulated.
8.4.4	CDPR (California Department of Pesticide Regulation):	Reg. #:10897-50030-AA (Spray adjuvant - California only)
15.3	Canada Regulations:	
15.3.1	WHMIS (Workplace Hazardous Materials Information System):	Not Controlled.
15.3.2	DSL (Domestic Substances List)	The substance is specified on the public Portion of the DSL.
15.4	European Union Commission Directive 2001/59/EC	
15.4.1	Risk Phrases:	R36- Irritating To Eyes.
15.4.2	Safety Phrases:	S2- Keep out of the reach of children. S24/25 Avoid any inhalation, contact with skin and eyes. Wear suitable protective clothing and gloves. S46- If swallowed, seek medical advice immediately and show this container or label.

SECTION 16: OTHER INFORMATION

16.1	HMIS III (Hazardous Materials Identification System):			
	16.1.1	HEALTH:	2	
	16.1.2	FLAMMABILITY:	0	
	16.1.3	PHYSICAL HAZARD:	0	
	16.1.4	Personal Protection:	See Section 8	
16.2	NFPA 704 (National Fire Protection Association):			
	16.2.1	Health:	2	
	16.2.2	Flammability:	0	
	16.2.3	Instability:	0	
	16.2.4	Special:	None	
16.3	International Fire Code/ International Building Code.		Irritant.	
16.4	ANSI (American National Standards Institute):			
	16.4.1	Hazardous Industrial Chemicals - MSDSs-Preparation:	Complies with ANSI Z400.1 – 2004.	
	16.4.2	Hazardous Industrial Chemicals - Precautionary Labeling:	Complies with ANSI Z129.1 – 2006.	
16.5	GHS (Globally Harmonized System):			
	16.5.1	GHS Classification:	Acute Oral Toxicity, Category 5	
	16.5.2	GHS Symbol:	None	
	16.5.3	GHS Signal Word:	Warning	
	16.5.4	GHS Hazard Statement:	May be harmful if swallowed.	

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