

**MATERIAL SAFETY DATA SHEET**

MSDS

**Chloryte Calcium Hypochlorite (Shock Bryte)**

**Date-Issued:**04/04/1997  
**MSDS Ref. No:**ASTO22112  
**Date-Revised:**03/04/2003  
**Revision No:**5

**1. PRODUCT AND COMPANY IDENTIFICATION****PRODUCT NAME:** Chloryte Calcium Hypochlorite (Shock Bryte)**GENERAL USE:** Bactericide for swimming pools.**CHEMICAL FAMILY:** Hypochlorites**MANUFACTURER**

Asepsis, Inc.

P.O. Box 1788

Suwanee, GA 30024-0973

**Customer SERVICE:** (800) 959-7946**24 HR. EMERGENCY TELEPHONE NUMBERS****CHEMTREC (Transportation)** (800) 424-9300**Poison Control Center (Medical)** (877) 800-5553**COMMENTS:** EPA Registration Number: 50956-1-10305**2. COMPOSITION / INFORMATION ON INGREDIENTS**

<u>Chemical Name</u>	<u>CAS#</u>	<u>Wt.%</u>
Calcium Hypochlorite	7778-54-3	67
Calcium Hydroxide	1305-62-0	3 - 7
Calcium Carbonate	471-34-1	1 - 2.5

**3. HAZARDS IDENTIFICATION****EMERGENCY OVERVIEW****PHYSICAL APPEARANCE:** White, granular material**IMMEDIATE CONCERNS:** DANGER: 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.**POTENTIAL HEALTH EFFECTS****EYES:** Causes eye irritation and burns which may result in permanent eye damage if not promptly treated. Avoid contact with eyes.**SKIN:** Causes skin irritation, and in severe cases, chemical burns. Avoid contact with skin.**SKIN ABSORPTION:** May be absorbed, causing tissue and blood cell damage.**INGESTION:** Can cause abdominal cramps and nausea which may lead to convulsions, coma and death.**INHALATION:** Irritating to nose and throat. Avoid breathing dust or fumes.**ROUTES OF ENTRY:** Skin Contact, Inhalation, Ingestion, Eye Contact.**COMMENTS HEALTH:** There are no known chronic hazards.**4. FIRST AID MEASURES****EYES:** If contact with eyes occurs: Immediately flush with cold water for at least 15 minutes. Then get immediate medical attention.**SKIN:** If contact with skin: Brush off excess chemical and flush skin with cold water for at least 15 minutes. If irritation persists, get medical attention.

**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.

**NOTES TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

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## 5. FIRE FIGHTING MEASURES

**FLASHPOINT AND METHOD:** Not Flammable

**GENERAL HAZARD:** Calcium Hypochlorite is a strong oxidizing agent. May form explosive mixtures with combustible, organic or other oxidizable materials.

**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 (SCBA). 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. Water in contact with hot Calcium Hypochlorite can release hydrochloric acid or chlorine gas.

**HAZARDOUS COMBUSTION PRODUCTS:** Chlorine, oxygen and chlorine monoxide at higher temperature.

**FIRE FIGHTING PROCEDURES:** Firefighters should wear full protective clothing and self-contained breathing apparatus (SCBA). Using a 10% solution of sodium carbonate, thoroughly decontaminate fire fighting equipment including all fire fighting apparel after the incident.

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## 6. ACCIDENTAL RELEASE MEASURES

**GENERAL PROCEDURES:** 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 or disposal or cleaning of equipment. Dispose of according to local, state and federal regulations.

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## 7. 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 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 or 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.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE GUIDELINES:

#### OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		SUPPLIER OEL	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Calcium Hypochlorite	TWA	N/E <sup>[1]</sup>		N/E			
Calcium Hydroxide	TWA	5		5			
Calcium Carbonate	TWA	15		10			

#### OSHA TABLE COMMENTS:

1. N/E = Not Established

**ENGINEERING CONTROLS:** General room ventilation plus local exhaust should be used to maintain exposure below TLV.

**PERSONAL PROTECTIVE EQUIPMENT:**

**EYES AND FACE:** Wear goggles or safety glasses with side shields when handling this product.

**SKIN:** Wear rubber gloves when handling this product. Avoid contact with skin.

**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.

**WORK HYGIENIC PRACTICES:** Remove and wash contaminated clothing before reuse.

**OTHER USE PRECAUTIONS:** Facilities storing or utilizing this material should be equipped with an eyewash and safety shower.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Solid

**ODOR:** Chlorine

**APPEARANCE:** Granules

**COLOR:** White

**pH:** 11.5(5% solution)

**VAPOR PRESSURE:** Not Applicable

**VAPOR DENSITY:** Not Applicable

**BOILING POINT:** Not Applicable

**MELTING POINT:** 100°C

**THERMAL DECOMPOSITION:** >100°C

**SOLUBILITY IN WATER:** 21.5g/100 ml water at 0 C

**SPECIFIC GRAVITY:** 2.35 (water=1) at 20°C

**ODOR THRESHOLD:** 0.02-0.35 ppm based on chlorine.

**COMMENTS:**

**DENSITY:** Bulk Density - 1.1 g/cm<sup>3</sup>

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## 10. STABILITY AND REACTIVITY

**CONDITIONS TO AVOID:** High temperature. Poor ventilation. Contamination. Moisture/high humidity.

**STABILITY:** This product is stable under normal conditions.

**POLYMERIZATION:** Hazardous polymerization will not occur under normal conditions.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Chlorine, oxygen and chlorine monoxide at higher temperatures.

**INCOMPATIBLE MATERIALS:** This is a strong oxidizing agent. Avoid contact with water on concentrated material in the container. Keep away from household soap, suntan lotion, paint products, solvents, acids, beverages, lighted cigarettes, combustible materials, garbage, dirt, dirty rags, organic materials and other swimming pool/spa chemicals in their concentrated forms. Mixing with any of the above materials can initiate a hazardous decomposition. Contact with acids or moisture evolves chlorine gas. Reacts with ammonia, urea and amines (can form reactive and toxic chloramines). Metal oxides can cause decomposition.

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## 11. TOXICOLOGICAL INFORMATION

**ACUTE**

**ORAL LD<sub>50</sub>:** 850 mg/kg (rat).

**EYE EFFECTS:** This product is corrosive to eyes.

**SKIN EFFECTS:** This product is corrosive to skin.

## CARCINOGENICITY:

- This product is not listed as a carcinogen by IARC.
- This product is not listed as a carcinogen by NTP.
- This product is not listed as a carcinogen by OSHA.

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## 12. 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 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.

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## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** Pesticide 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.

**GENERAL COMMENTS:** 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. Do not reuse container. Rinse thoroughly before discarding in trash. Disposal of unused, uncontaminated product is regulated according to local, state and federal regulations.

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## 14. TRANSPORT INFORMATION

### DOT (DEPARTMENT OF TRANSPORTATION)

- PROPER SHIPPING NAME:** Calcium Hypochlorite, hydrated
- PRIMARY HAZARD CLASS/DIVISION:** 5.1
- UN/NA NUMBER:** 2880
- PACKING GROUP:** II
- REPORTABLE QUANTITY (RQ) UNDER CERCLA:** 10 lb.

### CANADA TRANSPORT OF DANGEROUS GOODS

- PROPER SHIPPING NAME:** Calcium Hypochlorite, hydrated
- PRIMARY HAZARD CLASS/DIVISION:** 5.2
- SECONDARY HAZARD CLASS/DIVISION:** 9.2
- UN/NA NUMBER:** 1748,2880
- PACKING GROUP:** II

**COMMENTS:** Special Provisions: 109  
Regulated Limit: 5 kg

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## 15. 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 is listed as a CERCLA Hazardous Substance.

**CERCLA RQ:** Calcium hypochlorite RQ is 10 lb.

#### 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 COMM. RULE:** Product is hazardous by definition of the Hazardous Communication Standard.

**CLEAN WATER ACT:** This product is listed as a hazardous substance under the Clean Water Act.

**FIFRA (FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT):** This product is a registered pesticide.

**SDWA (SAFE DRINKING WATER ACT):** Not listed.

**CANADA**

**WHMIS (WORKER HAZARDOUS MATERIALS INFORMATION SYSTEM):** Proposed WHMIS Classification:

C - Oxidizing Material

E - Corrosive Material

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## 16. OTHER INFORMATION

**PREPARED BY:** Regulatory Affairs Department

**REVISION SUMMARY** Revision #: 5

This MSDS replaces the October 20, 2000 MSDS. Any changes in information are as follows:

In Section 1

Prepared By

### HMIS RATING

<b>HEALTH:</b>		3
<b>FLAMMABILITY:</b>		0
<b>PHYSICAL HAZARD:</b>		2
<b>PERSONAL PROTECTION:</b>		B

### NFPA RATING

<b>HEALTH:</b>	3
<b>FIRE:</b>	0
<b>REACTIVITY:</b>	2

**Key**

4 = Severe

3 = Serious

2 = Moderate

1 = Slight

0 = Minimal

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