



HASA DRI-SHOCK SHOCKING GRANULES

Safety Data Sheet

Emergency 24 Hour Telephone: **CHEMTREC 800.424.9300**

Corporate Headquarters: HASA Inc.
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Valencia, CA 91355
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SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1	Product Identification:	
1.1.1	Product Name:	HASA Dri-Shock Shocking Granules
1.1.2	CAS #:	7778-54-3
1.1.3	RTECS (Registry of Toxic Effects of Chemical Substances):	NH3485000
1.1.4	EINECS (European Inventory of Existing Commercial Substances):	231-908-7
1.1.5	Chemical Name:	Calcium Hypochlorite
1.1.6	Chemical Formula:	$\text{Ca}(\text{OCl})_2$
1.1.7	Molecular Weight:	143 g/mole
1.1.8	Chemical Family:	Inorganic acid salt
1.1.9	Synonym:	Losantin; hypochlorous acid, calcium salt; BK powder; Hy-Chlor; chlorinated lime; lime chloride; chloride of lime; calcium oxychloride; HTH; mildew remover X-14; perchloron; shock; dry chlorinator; and pittchlor.
1.2	Recommended Uses:	It is widely used for water treatment and as a bleaching agent (bleaching powder).
1.3	Company Identification:	HASA Inc. 25152 Springfield Court, Suite 300 Valencia, CA 91355
1.4	Emergency Telephone Number:	CHEMTREC 1-800-424-9300 (24 hour)
1.5	Non-Emergency Assistance:	661-259-5848 (8 AM – 5 PM PST / PDT)

SECTION 2: HAZARD(S) IDENTIFICATION

Hazard Category	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 Statements	Causes severe skin burns and eye damage. Harmful if swallowed. May intensify fire, oxidizer. May cause respiratory irritation.		
Precautionary Statements	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.		
	Disposal		
	Dispose of container/contents in accordance with local, regional, national, international regulations as specified.		

SECTION 3: COMPOSITION INFORMATION ON INGREDIENTS

	Ingredient	CAS No.	Weight %
3.1	Calcium Hypochlorite	7778-54-3	68
3.2	Sodium Chloride	7647-14-5	10-20
3.3	Calcium Chlorate	10137-74-3	0-5
3.4	Calcium Chloride	10043-52-4	0-5
3.5	Calcium Hydroxide	1305-62-0	0-4
3.6	Calcium Carbonate	471-34-1	0-5
3.7	Water	7732-18-5	5.5-10

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:	Product is not known to be flammable, combustible, or pyrophoric. This material increases the risk of fire and may aid combustion. Contact with combustible material may cause fire. This product is a strong oxidizer which is capable of intensifying a fire once started. Container may rupture.
5.2	Products of Combustion:	Carbon oxides, halogenated compounds and metal oxide/oxides
5.3	Fire Hazards:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Emits toxic fumes under fire conditions. Chlorine gas may be generated. This material is very toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
5.4	Fire Extinguishing Media:	Drench with large quantities of water only.
5.5	Not Suitable to Use:	Do not use dry chemicals or foams. Product supplies own oxygen, therefore attempts to smother fire with a wet blanket, carbon dioxide, dry chemical extinguisher or other means are not effective. Product has the potential to cause a violent reaction if dry chemical fire extinguishers are used.
5.6	Protective Equipment for Fire-Fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Use extreme caution in handling spilled material. Use spark-proof tools and explosion proof equipment. Do not mix this product with any other chemicals, including any other pool chemicals of any kind, such as other disinfection or "shock" pool products. Contamination with moisture, acids, organic matter, other chemicals (including, but not limited to cleaning chemicals and other pool chemicals), petroleum or paint products or other easily combustible materials may start a chemical reaction with generation of heat, liberation of hazardous gases and possible violent reaction leading to fire or explosion.

If fire or decomposition occurs in area of spill, immediately douse with plenty of water. Otherwise, sweep up all visible material using a clean (new, if possible), dry shovel and broom and immediately dissolve material in a water-filled container. Spilled material that has been swept up and dissolved in water should be used immediately in the normal application for which this product is being consumed. Prevent entry into sewers, water courses, basements or confined areas. Dispose of via a licensed waste disposal contractor.

SECTION 7: HANDLING AND STORAGE

7.1	Handling:	Use extreme caution in handling spilled material. Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Do not swallow. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container with the lid securely closed. Keep away from heat, sparks, flames, direct sunlight, and other sources of heat, including lighted tobacco products. Keep away from combustible material. Add this product only to water. Never add water to this product. Always add the product to large quantities of water. Do not mix this product with any other chemicals, including any other pool chemicals of any kind, such as other disinfection or "shock" pool products. Fire may result if contaminated with acids, organic materials and other easily combustible materials such as oil, kerosene, gasoline, paint products wood and paper. Use only a clean (new, if possible), dry scoop made of metal or plastic each time product is taken from the container. Do not add this product to any dispensing device containing remnants of any other product or pool chemical. Such use may cause violent reaction leading to fire or explosion. Empty containers retain product residue and can be hazardous. Do not reuse container. Residual material remaining in empty container can react to cause fire. Thoroughly flush empty container with water then destroy by placing in trash collection.
7.2	Storage:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Separate from reducing agents and combustible materials. See NFPA 400. Hazardous Materials Code for further information. (Please note that NFPA 400, Hazardous Materials Code recently replaced NFPA 430, Code for Storage of Liquid and Solid Oxidizers.) Keep container closed. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. If product becomes contaminated or decomposes do not reseal container. If possible isolate container in open air or well-ventilated area. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Do not contaminate water, food, or feed by storage or disposal of this product.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1	Engineering Controls:	Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Engineering controls may be required to control the primary or secondary risks associated with this product.	
8.2	Hygiene Measures:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Smoking should be prohibited in areas in which calcium hypochlorite is stored or handled.	
8.3	Personal Protection:		
8.3.1	Eye & Skin:	Wear gloves, and safety glasses to avoid skin and eye contact. Where industrial use occurs, chemical goggles and/or full impermeable suit may be required. Protective clothing type: Neoprene (this includes: gloves, boots, apron, protective suit)	
8.3.2	Respiratory:	Wear NIOSH approved respirator if dusts are created. NIOSH approved full face-piece respirator with chlorine cartridges and dust/mist pre-filter.	
8.3.3	Hands:	Chemical-resistant, impervious gloves (nitrile, neoprene, butyl rubber) complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.	
8.4	Exposure Limits:		
		Calcium Hypochlorite	Chlorine*
8.4.1	ACGIH (American Conference of Governmental Industrial Hygienists) TWA (Time Weighted Average)	Not established	0.5 ppm
8.4.2	ACGIH STEL (Short Term Exposure Limit)	Not established	1 ppm
8.4.3	OSHA PEL (Permissible Exposure Limit)	Not established	0.5 ppm
8.4.4	ACGIH Ceiling	Not established	Not established
8.4.5	NIOSH (National Institute for Occupational Safety & Health) IDLH (Immediate Danger to Life & Health)	Not established	10 ppm
8.4.6	OSHA STEL (Short Term Exposure Limit)	Not established	1 ppm as Cl ₂
8.4.7	NIOSH (15 min. ceiling)	Not established	0.5 ppm
*Chlorine is unlikely to be present as a decomposition product, but may be present in incidents of accidental mixing with other chemicals.			

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1	Physical State and Appearance:	White crystalline powder.
9.2	Odor:	Slight chlorine odor.
9.3	Vapor Pressure (mm Hg):	No information available.
9.4	Odor Threshold:	1.4 mg/m ³ (based on odor threshold of chlorine)
9.5	pH (0.1% aqueous solution):	10.4 – 10.8
9.6	Melting point:	Not applicable.
9.7	Solubility in Water (@ 25 °C):	217 g/l (27 °C)
9.8	Boiling Point:	Not applicable.
9.9	Flash point:	No information available
9.10	Evaporation rate:	Not applicable.
9.11	Flammability (solid, gas):	Not flammable. Nor combustible.
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:	1.07 to 1.4 (67-71 lbs/ft ³)
9.16	Partition Coefficient (n-octanol/water):	Not applicable.
9.17	Auto-ignition temperature:	No information available
9.18	Decomposition temperature:	170°C - 180°C (338°F - 356°F)
9.19	Viscosity:	Not applicable.

SECTION 10: STABILITY AND REACTIVITY

10.1	Stability:	Stable under recommended storage and handling conditions (see section 7). Product decomposes at approximately 170-180 °C (338-356 °F) releasing oxygen gas and some chlorine gas.
10.2	Incompatible Materials:	Highly reactive or incompatible with the following materials: moisture, combustible materials, organic materials, metals, acids, alkalis, oxidizing materials, reducing materials, Ammonia., Petroleum products., Paint products., Wood and paper., Pool chemicals. Acid or ammonia contamination will release toxic gases.
10.3	Hazardous Polymerization:	Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1	Routes of Entry:	Eyes, skin, ingestion, dermal absorption.
11.2	Acute Toxicity:	
11.2.1	Oral Toxicity (LD₅₀):	850 mg/kg (rat)
11.2.2	Dermal Toxicity (LD₅₀):	>1000 mg/kg
11.2.3	Inhalation (LC₅₀):	No information.
11.2.4	Primary Eye Irritation:	Corrosive
11.2.5	Primary Skin Irritation:	Corrosive
11.3	Chronic Effects (Human Risk Assessment):	Based on the toxicity profile and exposure scenarios for calcium hypochlorite, EPA concludes that the risks from chronic and subchronic exposure to low levels of this pesticide is minimal and without consequence to human health.
11.4	EPA Toxicity Labeling:	Toxicity Category I
11.5	Carcinogenic [Cancer Potential] Information:	
11.5.1	NTP (National Toxicological Program 6 th Annual Report on Carcinogens):	Not Listed.
11.5.2	IARC (International Agency for Research on Cancer Monographs, V. 1-100):	Not Listed. (Group 3 substance).
11.5.3	ACGIH (American Conference of Governmental Industrial Hygienists)	Not Listed.
11.5.4	OSHA (Occupational Safety & Health Administration)	Not Listed.

SECTION 12: ECOLOGICAL INFORMATION

12.1	Environmental Fate:	In fresh water, calcium hypochlorite breaks down rapidly into non-toxic compounds when exposed to sunlight. In seawater, chlorine levels decline rapidly; however, hypobromite (which is acutely toxic to aquatic organisms) is formed. EPA believes that the risk of acute exposure to aquatic organisms is sufficiently mitigated by precautionary labeling and National Pollutant Discharge Elimination System (NPDES) permit requirements.
12.2	Ecotoxicity:	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.
12.3	Aquatic Toxicity:	
12.3.1	Fish (LC ₅₀)	0.44 - 0.79 mg/L blue gill sunfish 0.18 - 0.22 mg/L rainbow trout
12.3.2	Invertebrate (LC ₅₀)	0.033 – 0.048 mg/L daphnia magna
12.3.3	Avian (LC ₅₀)	>5220 ppm mallard duck (dietary) >5620 ppm Bobwhite Quail (dietary)
12.3.4	Avian (LD ₅₀)	>2510 mg/kg Bobwhite Quail
12.4	Chemical Fate:	No information found.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	Waste Disposal Notes:	Care must be taken to prevent environmental contamination from the use of the material. The user of the material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and non hazardous waste.
13.2	Waste Disposal Summary:	If this product becomes a waste, it meets the criteria of a hazardous waste as defined under 40 CFR 261 with a EPA hazardous waste number D001. It will be subject to the Land Disposal restrictions under 40 CFR 268 and must be managed according.
13.3	Waste Disposal Method:	As a hazardous solid waste, it should be disposed of in accordance with local, state and federal regulations.
13.4	Potential U.S. EPA Waste Code:	D001

SECTION 14: TRANSPORT INFORMATION

14.1	US D.O.T.		
		Inside packages up to 2.2 pounds.	Inside or individual packages over 2.2 pounds.
14.1.1	Proper Shipping Name:	Consumer Commodity	Calcium Hypochlorite, hydrated
14.1.2	Hazard Class:	ORM-D	5.1
14.1.3	UN ID Number:	Not applicable	UN2880
14.1.4	Labels:	ORM-D	Oxidizer
14.1.5	Placards:	None required	Oxidizer
14.1.6	Markings:	None required	Oxidizer
14.1.7	Packing Group:	None required	II
14.1.8	Reportable Quantity (RQ):	10 lbs.	10 lbs.
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. <i>This information is not intended to convey all specific regulatory or operational requirements / information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.</i>		

SECTION 15: REGULATORY INFORMATION

15.1	U.S. Regulations:	
15.1.1	OSHA HAZCOM (Hazard Communication)	This material 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 Reg. No. :10897-20005 (Registered pesticide under 40 CFR 152.10)
15.1.4	EPA TSCA (Toxic Substance Control Act)	All components are listed or exempted.
15.1.5	EPA CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)	Reportable Quantity (RQ): 10 lbs.
15.1.6	SARA TITLE III:	SARA (302): No TPQ listed. SARA (311, 312): Hazard Class: Acute Health Hazard. Reactive Hazard.
15.1.7	EPA RMP (Risk Management Plan)	Not listed. (40 CFR 68.130)
15.2	State of California Regulations:	
15.2.1	CDPR (California Department of Pesticide Regulation)	Registration No: 10897-20005-ZC
15.2.2	CalARP (California Accidental Release Prevention Program)	Not regulated.
15.2.3	Safe Drinking Water and Toxic Enforcement Act of 1986 [California Prop 65]: Small quantities – less than 100 ppm (parts per million) – of impurities, including bromates, may be found in all chlorinating products, including this product. Bromates are derived from bromides, which are present in sodium chloride (table salt) from which chlorine is manufactured. Additional small quantities of bromates may be generated during the disinfection process. 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. The US Environmental Protection Agency has established a maximum contaminant level (MCL) for bromates in drinking water at 10 ppb (parts per billion). Application of this product in accordance with label directions at use dilution will not exceed this level. This warning is provided pursuant to Proposition 65, 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 .	
15.3	Canada Regulations:	
15.3.1	WHMIS (Workplace Hazardous Materials Information System)	- Classification: C (Oxidizing Material) & E (Corrosive Materials) - Health Effects Criteria Met by this Chemical: E (Corrosive to Skin) - Ingredient Disclosure List: Not included. Meets criteria for disclosure at 1% or greater.
15.3.2	DSL (Domestic Substances List)	All components of this product are on the DSL.
15.4	International Inventory: On inventory or in compliance with inventory.	
15.4.1	AICS (Australian Inventory of Chemical Substances)	
15.4.2	KECI (Korean Existing Chemicals Inventory)	
15.4.3	PICCS (Philippine Inventory of Chemicals and Chemical Substances)	
15.4.4	IECSC (Inventory of Existing Chemical Substances in China)	
15.4.5	NZIoC (New Zealand Inventory of Chemicals)	

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.



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**, express 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 Safety Data Sheet has been prepared by HASA, Inc. staff from test reports and other information available in the public domain.