SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

Product Name: CAL-SHOCK CAL HYPO GRANULES
Synonym(s): Hypochlorite; Cal Hypo; Cal-Shock
Recommended Uses: Disinfectant and Sanitizer
SDS Reference: 23

Company Information: ALLCHEM PERFORMANCE PRODUCTS, INC.
6010 NW FIRST PLACE
GAINESVILLE, FL 32607
Tel: 352-378-9696

Distributed By: ALLCHEM PERFORMANCE PRODUCTS, INC.
6010 NW FIRST PLACE
GAINESVILLE FL 32607

24 HOUR EMERGENCY NUMBER: INFOTRAC (TRANSPORTATION): 1-800-535-5053

2. HAZARD(S) IDENTIFICATION

Classification:
OXIDIZER
CORROSIVE
ACUTE TOXICITY ORAL
TARGET ORGAN TOXICITY (SINGLE)
ENVIRONMENTAL HAZARD

Signal Word: DANGER

Hazard Statements:
HEALTH HAZARDS:
Skin Corrosion - Causes severe skin burns and eye damage - Category 1B - H314
Eye Damage - Causes serious eye damage - Category 1 - H318
Specific Target Organ Toxicity - Single Dose - May cause respiratory irritation - Category 3 - H335
Acute Oral Toxicity - Harmful if swallowed - Category 4 - H302
PHYSICAL HAZARDS:
Oxidizing Solid - Oxidizer - May intensify fire - Class 2 - H272
ENVIRONMENTAL HAZARDS:
Very toxic to aquatic life - Category 1 - H400

Precautionary Statements: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from clothing and other combustible materials. Do not breathe dust. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/ protective clothing/ eye protection/ face protection. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/container in accordance with local regulation.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

Skin Contact: Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. Wash contaminated clothing before reuse.

Inhalation: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

Ingestion: Get medical attention immediately. Rinse mouth with water. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

3. COMPOSITION

Chemical Name:	PERCENT %	CAS #
Calcium Hypochlorite	65 - 76	7778-54-3
Calcium Chlorate	0 - 5	10137-74-3
Calcium Chloride	0 - 5	10043-52-4
Calcium Hydroxide	1 - 5	1305-62-0
Calcium Carbonate	1 - 5	471-34-1

4. FIRST AID

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. Protect unharmed eye. Continue to rinse eye. Call a poison center or doctor for treatment advice.

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. Wash contaminated clothing before re-use.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration,

	with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Do not use mouth-to-mouth if victim inhaled the substance. Call a poison control center or doctor for further treatment advice.
If Swallowed:	Call a poison control center or doctor immediately for treatment. 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.
Most important symptoms and effects, both acute and delayed	Signs and symptoms of exposure through breathing, swallowing or contact: upset stomach (nausea, vomiting, diarrhea); burns (eyes and skin), irritation (nose, throat, airway); discomfort in chest; headache; shortness of breath; lung edema (fluid buildup in lung tissue). Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. Continue flushing during transport to hospital. Keep victim warm and under observation. Symptoms may be delayed.
Note:	Probable mucosal damage may contraindicate the use of gastric lavage. Have this SDS, product container or label with you when calling a poison control center or doctor, or going for treatment.

5. FIREFIGHTING MEASURES

Suitable / Unsuitable Extinguishing Media:	Drench with large volumes of water only. Do not use dry extinguishers containing ammonium compounds. Attemps to smother fire with a wet blanket, carbon dioxide, dry chemical extiguisher or other means are not effective. Use water to cool containers exposed to fire.
Specific Hazards from Chemical:	May intensity fire, oxidizer. This product is an NFPA Class 3 Oxidizer which can cause a severe increase in fire intensity. May explode from heat or contamination. May ignite combustibles (wood, paper, oil, clothing, etc.). Emits toxic fumes under fire conditions. Do not allow run-off from fire fighting to enter drains or water courses. Run-off may create fire or explosion hazard. Some will react explosively with hydrocarbons (fuels).
Special Protective Equipment:	In the event of fire, wear a positive pressure self-contained breathing apparatus (SCBA) and full protective clothing must be worn in case of fire. See Section 8 for protective equipment for fire fighting.
Other Information:	HAZARDOUS COMBUSTION PRODUCT: Chlorine.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Keep unnecessary personnel away from and upwind of spill/leak. Keep away from clothing and other combustible materials. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. ELIMINATE all ignition sources. Ensure adequate ventilation. Local authorities should be advised if significant spillage cannot be contained. For personal protection, see Section 8. 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. In case of fire, personal protective equipment should be used in addition to normal fire fighter equipment.
Environmental Precautions	Prevent entry into waterway, sewers, basments or confined areas. If product contaminates rivers and lakes or drains or ground, inform respective authorities.
Methods and Materials for cleanup:	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc) away from spilled material. Ventilate the contaminated area. Avoid generating dust and accumulation. Wear appropriate protective equipment and clothing during clean-up. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop the flow of material, if this is without risk. Sweep up and shovel using a clean broom or shovel. Shovel material into clean dry containers. All spills of this product should be treated as contaminated. Contaminated product may initiate a chemical reaction that may spontaneously ignite any combustible material present, resulting in a fire. Avoid getting spilled product wet. Do not seal disposal containers tightly. Immediately remove all product in disposal containers to an isolated area outdoors. REPORTABLE QUANTITY: 10 lbs. (as calcium hypochlorite) per 40 CFR 302.4.

7. HANDLING AND STORAGE

Handling:	Minimize dust generation and accumulation. Avoid inhalation of dust and fumes. Keep away from heat. Keep away from combustible material. Provide appropriate exhaust ventilation at places where dust is formed. Do not taste or swallow. Avoid contact with skin, eyes and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Do not mix this product with any other chemicals, including other pool chemicals of any kind. Contamination with moisture, acids, organic matter, other 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. Always add product to large quantities of water to fully dissolve product. Do not pour water into product, always add product to water. Do not use with stabilized chlorine

or bromine tablet chemical feeder. Do not add this product to any dispensing device containing remnants of any other product or pool chemical.

Storage: Store locked up. Keep product tightly sealed in original containers. Store product in a cool, dry, well-ventilated area. Store away from combustible or flammable products. Prevent ingress of humidity and moisture into container or package. Store in a climate controlled storage area or building is recommended in those areas where extreme high temperatures occur.
Do not store at temperatures above an average daily temperature of 35° C / 95° F. Storage above this temperature may result in rapid decomposition, evolution of chlorine gas and heat sufficient to ignite combustible products. Store away from incompatible materials (See Section 10)
(NFPA Oxidizer Class 3)

8. EXPOSURE CONTROLS / PERSONAL PROTECTIONS

OSHA permissible exposure limit:

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 910-1000)
CALCIUM HYDROXIDE CAS NR. 1305-62-0
PEL : 5 mg/m3 Respirable Fraction ; 15 mg/m3 Total dust

US OSHA Table Z-3 (29 CFR 1910.1000)
CALCIUM CARBONATE CAS NR. 471-34-1
TWA : 5 mg/m3 Respirable Fraction ; 15 mg/m3 Total Dust ; 50 mppcf Total Dust ; 15 mppcf Respirable Fraction

CALCIUM HYDROXIDE CAS NR. 1305-62-0
TWA : 5 mg/m3 Respirable Fraction ; 15 mg/m3 Total Dust ; 50 mppcf Total Dust ; 15 mppcf Respirable Fraction

US ACGIH Threshold Limit Values
CALCIUM HYDROXIDE CAS NR. 1305-62-0
TWA : 5 mg/m3

US NIOSH: Pocket Guide to Chemical Hazards
CALCIUM CARBONATE CAS NR. 471-34-1
TWA : 5 mg/m3 Respirable ; 10 mg/m3 Total

CALCIUM HYDROXIDE CAS NR. 1305-62-0
TWA : 5 mg/m3

Biological Limit Values: no biological exposure limits noted for the ingredient(s).

Appropriate Engineering Controls: Ventilation: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to keep airborne exposures below the TLV, PEL or other recommended exposure limit. Provide appropriate exhaust ventilation at places where dust is formed. Eye wash facilities and emergency shower must be available when handling this product.

Individual Protection Measures: Eye/Face Protection: Wear safety glasses with side shields (or goggles) and a face shield.
Skin/Hand Protection: Wear appropriate chemical resistant gloves. Frequent change is advisable. Use of an impervious apron is recommended. Wear appropriate thermal protection clothing, when necessary.

Keep from contact with clothing and other combustible materials. Remove and wash contaminated clothing promptly. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Granules
Color:	White
Odor:	Chlorine-like
Melting Point/Freezing Point:	Not Applicable
Initial Boiling Point/Boiling Range:	Not Applicable
Flammability (solid/gas):	Chemically reactive with many substances.
Upper/lower Flammability or Exposure limits:	Not Applicable
Flash Point:	Not Applicable

Auto-ignition Temperature:	Not Applicable
Decomposition Temperature:	338 - 356°F (170 - 180°C)
pH:	10.4 - 10.8 @ 25°C (in 1% distilled water)
Viscosity:	No data available
Solubility(ies):	100% in water
Partition Coefficient: n-octanol/water:	No data available
Vapor Pressure:	Not Applicable
Density:	0.8g/cc
Vapor Density:	Not Applicable
Particle Characteristics:	No data available

10. STABILITY AND REACTIVITY

Stability/Reactivity: This product is stable and non-reactive under normal conditions of use, storage and transport. Product decomposes at approximately 170-180° C (338-356° F) releasing oxygen gas and some chlorine gas.

Possibilities of Hazardous Reactions: NFPA Class 3 Oxidizer.
Hazardous Polymerization: Will Not Occur.

Conditions to Avoid: Do not store next to heat source, in direct sunlight, or elevated storage temperature. Do not store where the daily average temperature exceeds 95°F. Prevent ingress of humidity and moisture into container or package. Always close the lid. Keep away from incompatible materials.

Incompatible Materials: This product is chemically reactive with many substances, including, e.g., other pool treatment products, acids, metals, acids, alkalis, petroleum products, paint products, organics, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, all corrosive liquids, flammable or combustible materials, moisture. Do not allow product to contact any foreign matter, including other water treatment products. Contamination or improper use may cause a fire of great intensity, explosion or the release of toxic gases. If product is exposed to small amounts of water, it can react violently to produce heat and toxic gases and spatter.

Hazardous Decomposition Materials: Chlorine.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: Information on likely routes of exposure:
Inhalation: May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin Contact: Causes severe skin burns.
Eye Contact: Causes serious eye damage. Corrosive to eyes.
Ingestion: Causes digestive tract burns. Harmful if swallowed.
Skin Sensitization: This material is not known or reported to be a skin or respiratory sensitizer.

Symptoms related to the physical, chemical and toxicological characteristics:
Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

Acute Toxicity:
In high concentrations, vapors are anesthetic and may cause headache, fatigue, dizziness and central nervous system effect. Harmful if swallowed. This product is corrosive to all tissues contacted and upon inhalation, may cause irritation to mucous membranes and respiratory tract. The dry material is irritating to the skin. However when wet, it will produce burns to the skin.

COMPONENT ANIMAL TOXICITY:
Oral LD50 value:
CALCIUM HYPOCHLORITE LD50 = 850 mg/kg Rat
CALCIUM CHLORIDE LD50 = 2,301 mg/kg Rat
CALCIUM HYDROXIDE LD50 = 7,340 mg/kg Rat
CALCIUM CARBONATE LD50 = 6,450 mg/kg Rat

Dermal LD50 value:
CALCIUM HYPOCHLORITE LD50 > 2,000 mg/kg Rabbit
CALCIUM CHLORIDE LD50 = 2,630 mg/kg Rat
CALCIUM HYDROXIDE = 2,500 mg/kg Rat 24 Hours
CALCIUM CARBONATE LD50 = >2,000 mg/kg Rat

Inhalation LC50 value:
CALCIUM HYPOCHLORITE : Assessment: Corrosive to the respiratory tract.
CALCIUM CHLORIDE No data
CALCIUM HYDROXIDE : Assessment: Corrosive to the respiratory system.
CALCIUM CARBONATE LC50 >3 mg/l Rat

Chronic Toxicity: Prolonged inhalation may be harmful.

Reproductive Toxicity: This product is not expected to cause reproductive or developmental effects.

Carcinogenicity: Not classified based upon available information.
IARC Monographs:
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053):
No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

US National Toxicology Program - NTP Report on Carcinogens:
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity: ACUTE AQUATIC TOXICITY: Category 1 ; Very toxic to aquatif life
CHRONIC AQUATIC TOXICITY: Not classified based on avaialble information.

CALCIUM HYPOCHLORITE
Bluegill - 96 h LC50 0.049 - 0.16 mg/l
Waterflea - 48 h LC50 0.067 mg/l

CALCIUM CHLORIDE
Bluegill - 96 h LC50 = 9,500 mg/l - Mortality
Waterflea - 48 h LC50 = 1,770 - 2,030 mg/l - Mortality

CALCIUM CARBONATE
Mosquito fish - Acute Toxicity 96 h LC50 >56,000 mg/l

CALCIUM HYDROXIDE
Zambezi barbel - Acute Toxicity 96 h LC50 33.8844 mg/l

Persistance and Degradability: No data available.

Bioaccumulative Potential: No data available. Mobility in Soil: No data available.

Environmental Hazards: This product is highly toxic to fish and other aquatic organisms. Do not discharge effluent containing this product into lakes, ponds, streams, estuaries, oceans or public 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.

13. DISPOSAL CONSIDERATIONS

Disposal: Dispose of this material and its container to hazardous or special waste collection point. If discarded, this product is considered a RCRA ignitable Waste, D001.
Dispose of contents/container in accordance with local/regional/national/international regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner. Empty containers should be taken to an approved waste handling site for recycling or disposal.
Hazardous Waste Code:
D001 : Waste Flammable material with a flash point <140° F
D002 : Waste Corrosive material [pH ≤2 or ≥12.5, or corrosive to steel]

14. TRANSPORATION INFORMATION

Package exceptions may be applicable. Refer to the appropriate IMDG, IATA and/or 49 CFR regulations accordingly.

DOT:	RQ, UN2880, Calcium Hypochlorite, Hydrated Mixture, 5.1, PG II or RQ, UN2880, Calcium Hypochlorite, Hydrated, 5.1, PG II

15. REGULATORY INFORMATION

TSCA:	USA: Reported in the EPA TSCA Inventory.
SARA (311, 312):	Classified Hazard Categories: Oxidizer (liquid, solid, or gas) Acute Toxicity (any route of exposure) Skin corrosion or irritation Serious eye damage or eye irritation Specific target orgen toxicity (single or repeated exposure)
SARA 313:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
Right To Know Hazardous Substance List:	California - This product is not listed on California Prop 65. Massachusetts - Calcium Chlorate, Calcium Hydroxide, Calcium Hypochlorite. New Jersey - Calcium Chloride, Calcium Chlorate, Calcium Hydroxide, Calcium Hypochlorite, Calcium Carbonate, Sodium Chloride. Pennsylvania - Calcium Chlorate, Calcium Hydroxide, Calcium Hypochlorite, Sodium Chloride.
Waste Classification:	Waste Disposal Summary : If this product becomes a waste, it meets the criteria of a hazardous waste as defined under 40 CFR 261 and would have the following EPA hazardous waste number: D001.If this product becomes a waste, it will be a hazardous waste which is subject to the Land Disposal restrictions under 40 CFR 268 and must be managed accordingly.
Workplace Classification:	This product is considered hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200).
CERCLA Reportable Quantity:	CALCIUM HYPOCHLORITE : 10 lbs.

EPA NOTES:

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use. Following is the hazard information as required on the pesticide label:

SIGNAL WORD: DANGER

PRECAUTIONARY STATEMENTS:HAZARDS TO HUMANS AND DOMESTIC ANIMALS: DANGER. Highly corrosive. Causes skin and eye damage. May be fatal if swallowed. Do not get in eyes, on skin or on clothing. Do not handle with bare hands. Irritating to nose and throat. Wear rubber gloves and protective eyewear such as goggles, face shield, or safety glasses. Do not breathe dust and fumes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

PHYSICAL AND CHEMICAL HAZARDS: CONTAMINATION MAY CAUSE FIRE OR EXPLOSION! MIX ONLY INTO WATER. DANGER: STRONG OXIDIZING AGENT: Mix only with 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 with generation of heat, chlorine gas and possible generation of 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 if necessary. FIRE OR EXPLOSION COULD RESULT FROM IMPROPER USE.

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish and aquatic organisms.

16. OTHER 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 15 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. The information in this SDS was obtained from sources, which we believe are reliable. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS. The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Issue Date: 6/5/2023

HMIS Rating:	Health: 3 / Flammability: 0 / Physical Hazard: 2
NFPA Rating:	Health: 3 / Flammability: 0 / Instability: 1
Special Hazard Warning:	OX - Oxidizer, Class 3