

## Technical Data Sheet

### Calcium Hypochlorite-Granular

<b>Product Code:</b>	JALCAL02
<b>Physical Data:</b>	
Description	White to off-white free flowing granular material free of foreign matter. Has a strong chlorine odour
Molecular Formula	Ca(OCl) <sub>2</sub>
Molecular Weight	142.98
Bulk Density	0.80 g/mL [average, loose]
Water Solubility	21grams/100 ml water (@ 25°C) Product also contains calcium hydroxide and calcium carbonate which will leave a residue.
pH	10.5 - 11 (5% solution in neutral, distilled water) (@ 25°C)

#### Sales Specification:

Certified by NSF/ANSI/CAN Standard 60 for disinfection, oxidation and algicide up to a maximum of 12 mg/L.

Calcium hypochlorite	68.0 w/w% min nominal
Available chlorine	68.0 w/w% min nominal
Water	4-10 w/w% min-max ax
<i>Particle Size(U.S. Standard Sieve)</i>	
Granular size ASTM 14	96% min
Granular size ASTM 100	4% max

#### Safety Note:

Read the Material Safety Data Sheet (MSDS) for special handling information.

Date: 10.09.22

CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** CALCIUM HYPOCHLORITE 70% MIN (SODIUM PROCESS)

**BATCH NUMBER:** 125A/22-23

**MFG DATE:** September-2022

**EXP DTE:** August-2025

<b>Characteristics</b>	<b>Specifications</b>	<b>Test Results</b>
<b>Appearance</b>	White Granules Mixture	Complies
<b>Form</b>	Granules	Complies
<b>Available Chlorine %</b>	70.0 min.	71.26
<b>Water Content %</b>	4.0-10.0	5.2
<b>Total content of Aluminium Oxide (Al<sub>2</sub>O<sub>3</sub>) % (m/m), max</b>	1.0	NIL
<b>Sodium Chloride</b>	15.0% max	12.0%
<b>Water Insoluble</b>	3% max	2.31
<b>Granular Size ASTM 14</b>	95.0% min.	97.6%
<b>Granular Size ASTM 45</b>	5.0% max.	2.4%
<b>Stability Loss</b>	10.0% max.	Complies



\*We are complying with NSF/ANSI/CAN 60 and all applicable requirements.

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## SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND OF THE COMPANY / UNDERTAKING

- **Product name:** CALCIUM HYPOCHLORITE
- **CAS number:** 7778-54-3
- **EINECS number:** 231-908-7
- **Index number:** 017-012-00-7
- **Product code:** 9220
- **Synonyms:** CALCIUM HYPOCHLORITE
- **Use/description of product:** Granular un-stabilized chlorine sanitizer used in swimming pools and spa baths. providing 70% available chlorine.
- **Company name:** JAL AQUA INTERNATIONAL.

### 2. COMPOSITION/INFORMATION ON THE INGREDIENTS

- **Hazardous ingredients:** CALCIUM HYPOCHLORITE 70%
- **EINECS number:** 231-908-7
- **CAS number:** 7778-54-3

### 3. HAZARD IDENTIFICATION

**Main hazards:** Contact with combustible material may cause fire. Causes burns. Very toxic to aquatic organisms. Harmful if swallowed. Contact with acids liberates toxic gas.

### 4. FIRST AID MEASURES (SYMPTOMS)

- **Kin contact:** There will be irritation and redness at the site of contact.
  - **Eye contact:** There will be severe pain, redness and irritation.
  - **Ingestion:** There will be nausea and vomiting, occasionally with abdominal pain.
  - **Inhalation:** Mild poisoning causes a cough. Irritation of the throat and shortness of breath. Congestion of the lungs may occur causing severe shortness of breath.
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## 5. FIRST AID MEASURES (ACTIONS)

- **Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. If there is any irritation obtain medical attention.
- **Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor
- **Ingestion:** Rinse mouth with water. Do not induce vomiting. If conscious, drink plenty of water and seek medical advice immediately.

## 6. FIRE - FIGHTING MEASURES

- **Extinguishing media:** Water spray. Use water spray to cool containers. Dry chemical powders containing ammonium compounds should NOT be used.
- **Exposure hazards:** Reacts with water to form chlorine gas
- **Protection of fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## 7. ACCIDENTAL RELEASE MEASURE

- **Personal precautions:** Do not create dust. Refer to section 8 of SDS for personal protection details. Mark out the contaminated area with signs and prevent access to unauthorized personnel. Eliminate all sources of ignition.
- **Environmental precautions:** Do not discharge into drains or rivers. Alert the neighborhood to the presence of fumes or gas.
- **Clean-up procedures:** Do not allow to enter surface water courses. The creation and inhalation of dust must be avoided. Do not use equipment in clean-up procedure which may produce sparks. Sweep up spilt material into suitable containers for waste recovery or waste disposal. Do not use sawdust or any materials which may be oxidized.

## 8. HANDLING AND STORAGE.

- **Handling requirements:** Ensure there is enough ventilation of the area. Avoid direct contact with the substance. Avoid the formation or spread of dust in the air. Smoking is forbidden. Use non-sparking tools.
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- **Storage conditions:** Avoid incompatible materials and conditions - see section 10 of SDS. Keep away from flammable and combustible materials. Store in cool, dry, well ventilated area. Keep container tightly closed.
  - **Suitable packaging:** Containers must be clean and free from organic residues.

## 9. EXPOSURE CONTROL/ PERSONAL PROTECTION.

- **Engineering measures:** Ensure there is enough local exhaust ventilation.
- **Respiratory protection:** Dust mask recommended.
- **Hand protection:** Protective gloves.
- **Eye protection:** Safety goggles or face-shield. Ensure eye bath is to hand.
- **Skin protection:** Wear appropriate clothing to prevent repeated or prolonged skin contact. Ensure safety

## 10. PHYSICAL AND CHEMICAL PROPERTIES

- **State:** Granular Mixture
- **Color:** White
- **Odor:** Strong chlorine
- **Oxidizing:** Oxidizing (by EC criteria)
- **Solubility in water:** Approximately 18% @ 25°C
- **Also soluble in:** Decomposes in water.
- **Melting point/range °C:** ~100
- **pH:** 8.74 (0.1% solution)

## 11. STABILITY AND REACTIVITY

- **Stability:** Stable under normal conditions.
  - **Conditions to avoid:** Heat; Flames; Moist air.
  - **Materials to avoid:** Chlorinated iso-cyanurates; Acids; Combustible materials; Ammonia compounds; Strong oxidizing Agents; Strong reducing agents; Water; Amines.**az. Decomp. products:** Decomposes at 177°C. In combustion emits toxic gases/vapors/fumes of chlorine. Contact of Solutions with acids will release Chlorine gas
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## 12. TOXICOLOGICAL INFORMATION.

- **Hazardous ingredients:** CALCIUM HYPOCHLORITE; ORL RAT LD50 850 mg/kg
- **Chronic toxicity:** Exposure by inhalation, skin and eye contact must be avoided. Exposure by ingestion must be avoided.
- **Routes of exposure:** Extreme irritation of eyes and mucous membranes; including burning; Severe skin irritation; Upset stomach.

## 13. ECOLOGICAL INFORMATION.


- **Mobility:** Slightly soluble in water, Decomposes in water.
- **Persistence and degradability:** No data available.
- **Bio-accumulative potential:** Not known
- **Other adverse effects:** Very toxic to aquatic organisms.

## 14. DISPOSAL CONSIDERATION.

- **Disposal operations:** Do not discharge concentrated material into sewer. Do not mix with acids or chlorinated iso-cyanurates.
  - **Disposal of packaging:** All residues must be removed from packaging prior to disposal as controlled waste.
  - **NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.
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## 15. TRANSPORT

### INFORMATION ADR/ ADR

<b>UN No:</b> 2880	<b>ADR Class:</b> 5.1
<b>Packing group:</b> II	<b>Classification code:</b> O2
<b>Shipping name:</b> CALCIUM HYPOCHLORITE, HYDRATED	<b>Labelling:</b> 5.1 
<b>Hazard ID no:</b> 50	

### IMDG/ IMO

<b>UN no:</b> 2880	<b>Class:</b> 5.1
<b>Packing group:</b> II	<b>Ems:</b> F-H, S-Q
<b>Marine Pollution:</b> No	<b>Labelling:</b> 5.1

### IATA/ICAO

<b>UN no:</b> 2880	<b>Class:</b> 5.1
<b>Packing group:</b> II	<b>Packaging instruction:</b> 508(P&CA); 511 (CAO)
<b>Labelling:</b> 5.1	

## 16. REGULATORY INFORMATION.

**HAZARDOUS SYMBOLS:** Oxidizing; Corrosive; Dangerous For The Environment



### **RISK PHRASES:**

- **R8:** Contact with combustible material may cause fire.
- **R34:** Causes burns.
- **R50:** Very toxic to aquatic organisms.
- **R22:** Harmful if swallowed.
- **R31:** Contact with acids liberates toxic gas.

### **SAFETY PHRASES:**

- **S1/2:** Keep locked up and out of the reach of children.
- **S26:** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- **S28:** After contact with skin, wash immediately with plenty of water.
- **S36/37/39:** Wear suitable protective clothing, gloves and eye / face protection.
- **S45:** In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- **S61:** Avoid release to the environment. Refer to special instructions / safety data sheets.

**PRECAUTIONARY PHRASES:** Warning! Do not use together with other products. May release dangerous gases (chlorine).

**NOTE:** The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.



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## **17. OTHER INFORMATION**

### **OTHER INFORMATION:**

- Refer to the Manual Handling Operations Regulations 1992.
- Store in accordance with HSE Guidance Note CS17.
- Classed as special waste by the Hazardous Waste Regulations 2005.
- Read in conjunction with the Technical Data sheet concerning use of the product.  
Supplied packages include 0.5, 0.8, 1, 1.3, 5, 10, 12.5, 15, 25, 50 Liter polyethylene/polypropylene jars, buckets and kegs. Also 25 kilo polypropylene sacks, 45 and 50 kilo fiberboard kegs.

NOTE: alterations and additions have been made in most Sections of revision 3.

### **RISK PHRASES USED IN S.2:**

- R8: Contact with combustible material may cause fire.
- R22: Harmful if swallowed.
- R31: Contact with acids liberates toxic gas.
- R34: Causes burns.
- R50: Very toxic to aquatic organisms.

**LEGAL DISCLAIMER:** THE above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

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