

A UHYf]U`GUZYmi8 UHJG\ YYh

Revision Date: 10.12.2021

## CALCIUM<MDC7<@CF#H9`

%`-89BH= 75 HCB`C: `H<9`A5H9F-5 @5 B8`GI DD@9F

%%DfcXi WñjXYbhjZYf

DfcXi WibUa Y : Calcium Hypochlorite  
Gnbcbrn g#CH Yf`bUa Yg : Calcium hypochloride, Bleaching powder, Hypochlorous acid, calcium salt  
Chlorinated lime

%&`FY`Yj Ubh]XYbhjZYX`i gYg`cZH Y`gi VgHUbW`cf`a jI h fY`UbX`i gYg`UXj jgYX`U` Ujbgh`

FYWta a YbXYX`I gY` : Sanitizer and Oxidizer Water treatment chemical

%` `8 YHJ`g`cZH Y`gi dd`jYf`cZH Y`gUZYmiXUH`g\ YYh`

GI dd`jYf` : Novichem Co.  
30 Magnolia Str, Qaem Maqam Farahani Ave.  
Tehran15886/13941 IRAN

%\ `9a Yf[ YbWñUbX`WcbHWHY`Yd\ cbYbi a VYfg`

Contact telephone number : +98-21-88329799 (Product information)

&`<5 N5 F8 G`-89BH= 75 HCB

&%`7`UggjZVUjcb`cZH Y`gi VgHUbW`cf`a jI h fY`)

; <G`7`UggjZVUjcb`b`UWVfXUbW`k jH`&-`7: F`%`%`fCG<5`<7 GL`Oxidizing solids  
(Category 2), H272  
Acute toxicity, Oral (Category 4), H302  
Skin corrosion (Category 1B), H314  
Serious eye damage (Category 1), H318  
Acute aquatic toxicity (Category 1), H400  
Chronic aquatic toxicity (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

; <G`@VY`YYa Ybfgz`jWñ XjB[ `dfYWU`HjcbUfmgHUYa Ybfg`

Pictogram



Signal word

Danger

Hazard statement(s)

H272 May intensify fire; oxidizer.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage. Causes  
H318 serious eye damage.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)  
P210

Keep away from heat.

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P220	Keep/Store away from clothing/ combustible materials.
P221	Take any precaution to avoid mixing with combustibles.
P260	Do not breathe dust or mist.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P301 + P312 + P330	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P301 + P330 + P331	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing.
P303 + P361 + P353	Rinse skin with water/ shower.
P304 + P340 + P310	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P363	Wash contaminated clothing before reuse.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
	Collect spillage.
	Store locked up.
P391	Dispose of contents/ container to an approved waste disposal plant.
P405	
P501	

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Contact with acids liberates toxic gas.

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

### 3.1. Substances

Trade name: Calcium Hypochlorite  
 Chemical formula:  $\text{Ca}(\text{OCl})_2$   
 CAS number: 7778-54-3

Components	CAS Number	Proportion	Hazard Codes
Calcium Hypochlorite	7778-54-3	60-70%	
Calcium Chloride	10043-52-4	<2 %	

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

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**If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**Indication of any immediate medical attention and special treatment needed**

No data available

## 5. FIRE FIGHTING MEASURES

### 5.1. Extinguishing media

**Extinguishing media****Suitable extinguishing media**

Dry powder

**Special hazards arising from the substance or mixture**

No data available

**Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**Further information**

No data available

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods and materials for containment and cleaning up**

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Do not flush with water. Keep in suitable, closed containers for disposal.

**Reference to other sections**

For disposal see section 13.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition.

For precautions see section 2.2.

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Conditions for safe storage, including any incompatibilities  
Keep container tightly closed in a dry and well-ventilated place.  
Never allow product to get in contact with water during storage. Do not store near acids.  
Keep in a dry place.  
Storage class (TRGS 510): Strongly oxidizing hazardous materials  
Specific end use(s)  
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Control parameters

##### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

#### Exposure controls

##### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

##### Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. Information on basic physical and chemical properties

Appearance and colour:	White granules
Odour:	Characteristic
Odour threshold:	N.A.
Ca(OC1)2:	65% Min. %w/w
Moisture:	5% Max. %w/w
Insolubility in water:	7% Max. %w/w

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### 10. STABILITY AND REACTIVITY

#### 10.1. Reactivity

Contact with acids liberates chlorine, toxic gas.

#### 10.2. Chemical stability

The stability of the solution decreases with the action of heat, light and in the presence of some traces of impurities.

#### 10.3. Possibility of hazardous reactions

Contact with acids liberates chlorine, toxic gas. Reacts with ammonia in solution and amines forming explosive compounds. It can react violently in contact with many metals, in particular: copper, nickel, iron.

#### 10.4. Conditions to avoid

Keep away from heat and direct sunlight.

#### 10.5. Incompatible materials

Acids (violent decomposition with release of chlorine), metals (decomposition with release of oxygen), combustible materials.  
None in particular.

#### 10.6. Hazardous decomposition products

Chlorine, hypochlorous acid, sodium chloride.

### 11. TOXICOLOGICAL INFORMAT

#### 11.1. Information on toxicological effects

##### a) acute toxicity

Not classified

Based on available data, the classification criteria are not met

Test: LD50 - Route: Oral - Species: Rat > 1100 mg/kg - Notes: Ref. to Cl

Test: LC50 - Route: Inhalation - Species: Rat > 10.5 mg/l - Notes: Ref. to Cl

Test: LD50 - Route: Skin - Species: Rabbit > 20000 mg/kg - Notes: Ref. to Cl

##### b) skin corrosion/irritation

The product is classified: Skin Corr. 1B H314

Test: Skin Corrosive - Route: Skin Positive

##### c) serious eye damage/irritation

The product is classified: Eye Dam. 1 H318

Test: Eye Corrosive - Route: Skin Positive

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### 12. ECOLOGICAL INFORMATION

#### 12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

SODIUM HYPOCHLORITE, SOLUTION - CAS: 7681-52-9

The product is classified: Aquatic Chronic 1 - H410; Aquatic Acute 1 - H400

##### a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 0.06 mg/l - Duration h: 96

Endpoint: LC50 - Species: Fish = 0.032 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia = 0.141 mg/l - Duration h: 48

Endpoint: EC50 - Species: Crustaceans = 0.026 mg/l - Duration h: 48

#### 12.2. Persistence and degradability

N.A.

#### 12.3. Bioaccumulative potential

N.A.

#### 12.4. Mobility in soil

### 13. DISPOSAL CONSIDERATIONS

#### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

#### Contaminated packaging

Dispose of as unused product.

### 14. TRANSPORT INFORMATION

#### DOT (US)

UN number: 1748      Class: 5.1      Packing group: II

Proper shipping name: Calcium hypochlorite, dry

Reportable Quantity (RQ): 10 lbs

Marine pollutant: yes

Poison Inhalation Hazard: No

#### IMDG

UN number: 1748      Class: 5.1      Packing group: II

EMS-No: F-H, S-Q

Proper shipping name: CALCIUM HYPOCHLORITE, DRY

Marine pollutant: yes      Marine pollutant: yes

#### IATA

UN number: 1748      Class: 5.1      Packing group: II

Proper shipping name: Calcium hypochlorite, dry

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### 15. REGULATORY INFORMATION

**SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

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.

**Massachusetts Right To Know Components**

	CAS-No.	Revision Date
Calcium hypochlorite	7778-54-3	1993-04-24

**Pennsylvania Right To Know Components**

	CAS-No.	Revision Date
Calcium hypochlorite	7778-54-3	1993-04-24

**New Jersey Right To Know Components**

	CAS-No.	Revision Date
Calcium hypochlorite	7778-54-3	1993-04-24

**California Prop. 65 Components**

### 16. OTHER INFORMATION

Information contained herein is provided in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.