

SAFETY DATA SHEET

CALCIUM HYPOCHLORITE

SECTION 1: Identification of the substance/mixture and of the company/undertaking Trade name:

1.1 Product identifier:	
CAS Number:	7778-54-3
EC number:	215-181-3
1.2 SYNONYMS:	• Bleaching powder • Chlorinated lime • Calcium oxychloride • Dihydrated calcium hypochlorite • Calcium chloride hypochlorite • Hypochlorous acid calcium salt

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
2.2 Label elements:	Labelling according to Regulation (EC) No 1272/2008 Acute Toxicity (oral) (Category 3) Skin Irritation (Category 1B) Serious Eye Damage/Eye Irritation (Category 1) Oxidizing solids (Category 1)
Hazard Pictograms:	
Signal Word:	Danger
Hazard statements:	H271: May cause fire or explosion; strong oxidizer. H301: Toxic if swallowed. H314: Causes severe skin burns and eye damage. H318: Causes serious eye damage. H400: Very toxic to aquatic life.

Precautionary Statements:	P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking P280: Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
2.3 Other hazards:	
Inhalation:	can cause respiratory irritation, coughing, and difficult breathing.
Ingestion:	Can cause severe gastrointestinal irritation, nausea, vomiting, diarrhea and abdominal pain.
Skin Contact:	can cause severe irritation, burns, and ulceration.
Eye contact:	Can cause severe irritation, redness, pain and burning sensation.
Chronic Exposure:	may cause persistent skin irritation or dermatitis, Prolonged inhalation of dust or fumes can lead to chronic respiratory issues, such as lung irritation, asthma, or pulmonary damage.
Aggravation of pre-existing conditions :	may aggravate pre-existing respiratory conditions (like asthma or COPD), skin disorders (such as dermatitis or eczema), and eye conditions.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 7778-54-3 CALCIUM HYPOCHLORITE
Identification number(s):	EC number: 215-181-3

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician
After skin contact:	Wash with soap and water. Cover the irritated skin with an emollient. Consult a physician.
After eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes, Holding eyelids during flushing. consult a physician.
After swallowing:	Have victim rinse mouth thoroughly with water and drink plenty of water to dilute the material in stomach. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed:	acute skin burns, severe eye damage, respiratory irritation, and gastrointestinal distress after exposure, with delayed effects such as chronic skin irritation, respiratory issues, and potential organ damage with prolonged exposure.
4.3 Indication of any immediate medical attention and special treatment needed:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media:	Water Cool containers with flooding quantities of water until well after fire is out. Do not heat. Heating will emit fumes.
5.2 Special hazards arising from the substance or mixture:	Carbon dioxide.
5.3 Advice for firefighters:	Wear fully protective suit, safety glasses and respiratory device .

5.4 further information:

no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Avoid dust accumulation. dry manual lifting is suggested.
6.2 Environmental precautions:	Knock down dust with water spray. Avoid penetration into waterways, sewers, soil or groundwater. Local authorities should be advised if significant spillages cannot be contained..
6.3 Methods and material for containment and cleaning up:	Vacuum, shovel or pump waste into a drum and label contents for disposal. Avoid dust formation. Store in closed container. Clean up spill area and treat as special waste.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:	For use in are with adequate ventilation. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material Do not use in confined spaces. Electrostatic discharge protection. Minimize dust generation and accumulation. Avoid ingestion and inhalation.
7.2 Conditions for safe storage, including any incompatibilities:	Store in original containers. Keep containers securely sealed

	Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks.
Requirements to be met by storerooms and receptacles:	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
7.3 Specific end uses:	no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters	
Additional information about design of technical facilities:	A system of local and general exhaust is recommended
8.2 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:	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
General protective and hygienic measures:	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	Respiratory protection: Required.
Protection of hands:	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. Wash and dry hands.
	Eye protection: Required

Protection of Body:	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.
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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
Appearance: Form:	Powder
Colour:	White
Odour:	Smell like chlorine.
pH-value:	11.5
Melting point/Melting range:	100°C
Boiling point/Boiling range:	Not applicable
Flammability (solid, gaseous):	Not applicable
Ignition temperature:	Not applicable
Decomposition temperature:	100°C
Self-igniting:	Not applicable
Flash point:	Not flammable
Danger of explosion:	No data available
Explosion limits: Lower:	No data available
Explosion limits: Upper:	No data available
Vapour pressure:	No data available
Density at 20 °C:	0.8-1.2
Relative density:	No data available
Vapour density:	No data available
Evaporation rate:	No data available
Solubility in / Miscibility with- water at 20 °C:	23.4 g/100ml @ 40 °C
Partition coefficient:(n- octanol/water)	No data available
Viscosity:	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity	Strong oxidizer
10.2 Chemical stability	Normally unstable.
10.3 Possibility of hazardous reactions	Reacts with air to form chlorine gas, highly reactive to acids and

	alkalis. moderate reactive with water.
10.4 Conditions to avoid	Excessive heat and moisture.
10.5 Incompatible materials	Strong oxidizing agents.
10.6 Hazardous decomposition products	Nascent oxygen, chlorine chlorate

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	LD50 (Oral, Rat) : 805 mg/kg LD50 (Dermal, Rabbit) : 2000,g/kg LC50 (Inhalation Rat) : no data available
Skin corrosion/Irritation:	May cause chemical burns
Serious eye damage/irritation:	may cause irritation due to dust.
Respiratory damage/irritation:	may cause respiratory irritation
Ingestion:	may cause burning in the mouth and digestive tract.
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	no data available
Specific target organ toxicity - single exposure:	No data available
Specific target organ toxicity - repeated exposure:	No data available
Aspiration hazard:	No data available
Signs and Symptoms of Exposure:	Refer section 2.3
11.2 Additional toxicological information	
Biodegradability:	Not readily biodegradable

SECTION 12: Ecological information

12.1 Toxicity Aquatic toxicity:	No data available
12.2 Persistence and degradability:	Biodegradability does not pertain to inorganic substances
12.3 Bioaccumulative potential:	This material is inorganic and is not subject to bioaccumulation.

12.4 Mobility in soil:	No data available
12.5 Other adverse effects:	Breakdown of this chemical can be toxic to aquatic life.

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging Recommendation:	dispose of in accordance with local hazardous waste regulations
Recommended cleansing agents:	water, Sodium bicarbonate, Diluted vinegar or acetic acid, Soapy water.

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	UN 2208
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	Calcium hypochlorite
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	5.1
14.4 Packing group · ADR, IMDG, IATA:	3
14.5 Environmental hazards:	No data available
14.6 Special precautions for user:	Handle responsibly.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU	Directive 2012/18/EU, under that this substance is not classified in listed substance.
Named dangerous substances:	This substance is not listed in the annex 1 to the directive.
15.2 Chemical safety assessment:	Chemical assessment has not been carried out.

SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.