

## SAFETY DATA SHEET

### CALCIUM HYPOCHLORITE

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

<b>1.1 Product identifier:</b>	
<b>CAS Number:</b>	7778-54-3
<b>EC number:</b>	215-181-3
<b>1.2 SYNONYMS:</b>	<ul style="list-style-type: none"> <li>• Bleaching powder</li> <li>• Chlorinated lime</li> <li>• Calcium oxychloride</li> <li>• Dihydrated calcium hypochlorite</li> <li>• Calcium chloride hypochlorite</li> <li>• Hypochlorous acid calcium salt</li> </ul>

#### SECTION 2: Hazards identification:

<b>2.1 Classification of the substance or mixture:</b>	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
<b>2.2 Label elements:</b>	<p>Labelling according to Regulation (EC) No 1272/2008</p> <p>Acute Toxicity (oral) (Category 3)</p> <p>Skin Irritation (Category 1B)</p> <p>Serious Eye Damage/Eye Irritation (Category 1)</p> <p>Oxidizing solids (Category 1)</p>
<b>Hazard Pictograms:</b>	
<b>Signal Word:</b>	Danger
<b>Hazard statements:</b>	<p><b>H271:</b> May cause fire or explosion; strong oxidizer.</p> <p><b>H301:</b> Toxic if swallowed.</p> <p><b>H314:</b> Causes severe skin burns and eye damage.</p> <p><b>H318:</b> Causes serious eye damage.</p> <p><b>H400:</b> Very toxic to aquatic life.</p>
<b>Precautionary Statements:</b>	<b>P210:</b> Keep away from heat/sparks/open flames/hot surfaces. - No smoking

	<p><b>P280:</b> Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p><b>P301+P310:</b> IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.</p> <p><b>P305 + P351 + P338:</b> IF IN EYES: Rinse cautiously with water for several minutes. Remove contact</p>
<b>2.3 Other hazards:</b>	
<b>Inhalation:</b>	can cause respiratory irritation, coughing, and difficult breathing.
<b>Ingestion:</b>	Can cause severe gastrointestinal irritation, nausea, vomiting, diarrhea and abdominal pain.
<b>Skin Contact:</b>	can cause severe irritation, burns, and ulceration.
<b>Eye contact:</b>	Can cause severe irritation, redness, pain and burning sensation.
<b>Chronic Exposure:</b>	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.
<b>Aggravation of pre-existing conditions :</b>	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

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

### SECTION 4: First aid measures

<b>4.1 Description of first aid measures</b>	
<b>General information:</b>	
<b>After inhalation:</b>	If breathed in, move person into fresh air. If not breathing, give

	artificial respiration. Consult a physician
<b>After skin contact:</b>	Wash with soap and water. Cover the irritated skin with an emollient. Consult a physician.
<b>After eye contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes, Holding eyelids during flushing. consult a physician.
<b>After swallowing:</b>	Have victim rinse mouth thoroughly with water and drink plenty of water to dilute the material in stomach. Consult a physician.
<b>4.2 Most important symptoms and effects, both acute and delayed:</b>	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.
<b>4.3 Indication of any immediate medical attention and special treatment needed:</b>	Treat symptomatically.

## SECTION 5: Firefighting measures

<b>5.1 Extinguishing media:</b>	Water Cool containers with flooding quantities of water until well after fire is out. Do not heat. Heating will emit fumes.
<b>5.2 Special hazards arising from the substance or mixture:</b>	Carbon dioxide.
<b>5.3 Advice for firefighters:</b>	Wear fully protective suit, safety glasses and respiratory device .
<b>5.4 further information:</b>	no data available

## SECTION 6: Accidental release measures

<p><b>6.1 Personal precautions, protective equipment and emergency procedures:</b></p>	<p>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.</p>
<p><b>6.2 Environmental precautions:</b></p>	<p>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..</p>
<p><b>6.3 Methods and material for containment and cleaning up:</b></p>	<p>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.</p>

## SECTION 7: Handling and storage

<p><b>7.1 Precautions for safe handling:</b></p>	<p>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.</p>
<p><b>7.2 Conditions for safe storage, including any incompatibilities:</b></p>	<p>Store in original containers. Keep containers securely sealed</p>
	<p>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.</p>

<b>Requirements to be met by storerooms and receptacles:</b>	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.
<b>7.3 Specific end uses:</b>	no data available

## SECTION 8: Exposure controls/personal protection

<b>8.1 Control parameters</b>	
<b>Additional information about design of technical facilities:</b>	A system of local and general exhaust is recommended
<b>8.2 Exposure controls</b>	
<b>Appropriate engineering controls</b>	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
<b>Personal protective equipment:</b>	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
<b>General protective and hygienic measures:</b>	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	<b>Respiratory protection:</b> Required.
<b>Protection of hands:</b>	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.
	<b>Eye protection:</b> Required
<b>Protection of Body:</b>	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.

## SECTION 9: Physical and chemical properties

<b>9.1 Information on basic physical and chemical properties</b>	
<b>General Information</b>	
<b>Appearance: Form:</b>	Powder

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

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	Strong oxidizer
<b>10.2 Chemical stability</b>	Normally unstable.
<b>10.3 Possibility of hazardous reactions</b>	Reacts with air to form chlorine gas, highly reactive to acids and alkalis. moderate reactive with water.
<b>10.4 Conditions to avoid</b>	Excessive heat and moisture.
<b>10.5 Incompatible materials</b>	Strong oxidizing agents.
<b>10.6 Hazardous decomposition products</b>	Nascent oxygen, chlorine chlorate

## SECTION 11: Toxicological information

<b>11.1 Information on toxicological effects</b>	
<b>Acute Toxicity:</b>	<b>LD50</b> (Oral, Rat) : 805 mg/kg

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

## SECTION 12: Ecological information

<b>12.1 Toxicity Aquatic toxicity:</b>	No data available
<b>12.2 Persistence and degradability:</b>	Biodegradability does not pertain to inorganic substances
<b>12.3 Bioaccumulative potential:</b>	This material is inorganic and is not subject to bioaccumulation.
<b>12.4 Mobility in soil:</b>	No data available
<b>12.5 Other adverse effects:</b>	Breakdown of this chemical can be toxic to aquatic life.

## SECTION 13: Disposal considerations

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

## SECTION 14: Transport information

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

## SECTION 15: Regulatory information

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