1. IDENTIFICATION

Trade Marks and Synonyms
Stable Bleaching Powder, Calcium Oxychloride, Calcium hypo chlorite

Chemical Names and Synonyms
Calcium Hypochlorite

Physical Form
White Powder having characteristic chlorine odour

Molecular Formula
Ca (OCl)₂

Manufacturer Name & Address
Aditya Birla Chemicals (India) Ltd,
Dist. Sonebhadra, Renukoot
(UP) 231217, INDIA

Telephone: 91-5446-252088
e-mail: abcil.renukoot@adityabirla.com

Responsible Person
Safety Officer:
Aditya Birla Chemicals (India) Ltd, Renukoot
Dist Sonebhadra (UP) 231217, INDIA

2. INFORMATION OF MAJOR INGREDIENTS

Chemical Name
Calcium Hypochlorite

CAS No
7778-54-3

Formula
Ca (OCl)₂
3. **HAZARD IDENTIFICATION**

Main Risk
- Contact with combustible material may cause fire
- Contact with skin
  - Causes irritation, on contact for small duration
- Contact with eyes
  - Causes irritation
- Safety Phrases
  - Keep out of reach of children. In case of contact with skin, wash immediately with plenty of water.

4. **PHYSICAL AND CHEMICAL PROPERTIES**

- **Appearance and Odour**
  - Powder, White solid with odour of chlorine
- **pH**
  - 11.5 (5% solution)
- **Chlorine Content**
  - Min. 35% m/m
- **Bulk Density**
  - 0.8 – 1.2 gm/cc at 20 °C
- **Boiling Point**
  - Not applicable
- **Melting Point**
  - Decomposes at temperature above 100 °C
- **Flash Point**
  - Not applicable
- **Auto Ignition**
  - Not applicable
- **Flammable Limit**
  - Not Applicable
- **Vapour Pressure (mm Hg)**
  - Not Applicable
- **Solubility in Water**
  - 23.4 gm/100 ml water at 40 °C
- **Solubility in Organic Solvents**
  - Not Known
- **Oxidizing /Explosive Properties**
  - **Strong Oxidizer**, so it has serious fire and explosion risks

5. **STABILITY AND REACTIVITY**

- **Stability**
  - Normally unstable (losses available chlorine by 2% on heating above 100 °C)
- **Conditions to avoid**
  - Excessive heat and moisture.
- **Material to avoid**
  - Acids, organic compounds, metal oxides, ammonia, urea & amines etc.

- **Reactivity**
  - **Air**
    - Releases chlorine gas.
  - **Water**
    - A risk of explosion or toxic gas formation
  - **Acids**
    - Highly reactive with a risk of explosion & toxic gas formation
  - **Alkalis**
    - Reactive.
Hazardous Decomposition Products  
Nascent Oxygen, Chlorine, Calcium chlorate

6. **TOXICITY DATA**

Routes of Entry

<table>
<thead>
<tr>
<th>Route</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>In contact with skin</td>
<td>Solution can cause chemical burns</td>
</tr>
<tr>
<td>In contact with eyes</td>
<td>Dust can cause eye irritation</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Dust may irritate nose, throat &amp; upper respiratory tract</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May cause burns to the mouth &amp; digestive tract</td>
</tr>
</tbody>
</table>

Toxicity Data

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD₅₀ (Rats, Oral)</td>
<td>805 mg/kg</td>
</tr>
<tr>
<td>LD₅₀ (Rabbit, Dermal)</td>
<td>&gt;2000 mg/kg</td>
</tr>
</tbody>
</table>

Chronic Toxicity  
Not Available

Carcinogenic Toxicity  
No data available

Mutagenic Toxicity  
Studies for mutagenicity were negative.

Reproductive Toxicity  
No information is available.

Ventilation Requirements  
Adequate ventilation required

Respiratory Protection  
Anti dust mask & respirator with acid cartridge for chlorine

Eye Protection  
Goggles or full-face mask.

7. **FIRST AID MEASURES**

Skin Contact  
Remove contaminated clothing and wash affected area with sufficient quantity of water for 15-20 minutes & obtain medical advice immediately

Eye Contact  
Immediately flush eyes thoroughly for at least 15 minutes with running water. Hold eyelids open during flushing. If irritation persists, repeat flushing. Seek medical attention.

Inhalation  
Move the victim to fresh air, obtain medical attention. In case of respiratory failure provide artificial respiration

Ingestion  
Have victim rinse mouth thoroughly with water & drink plenty of water to dilute the material in stomach. If spontaneous vomiting occurs, make victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water. Obtain medical attention immediately.

Further Medical Advice  
Seek medical attention
8. **FIRE AND EXPLOSION HAZARD DATA**

<table>
<thead>
<tr>
<th>Fire Extinguishing Media</th>
<th>Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heating will emit fumes. Water spray, foam, carbon dioxide or dry powder may be used. Keep containers cool with copious amounts of water.</td>
<td></td>
</tr>
</tbody>
</table>

Would any material saturated with this product be subject to spontaneous combustion? Yes

<table>
<thead>
<tr>
<th>Fire Fighting Protective Equipment</th>
<th>Wear full protective clothing, goggles &amp; mask suitable for chlorine gas.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Unusual Fire and Explosive Hazards</th>
<th>During a fire in which this material is involved, emits toxic fumes of HCl.</th>
</tr>
</thead>
</table>

9. **PERSONAL PROTECTION**

<table>
<thead>
<tr>
<th>General Precautions</th>
<th>Eye and skin protection should be used when Handling SBP</th>
</tr>
</thead>
</table>

10. **HANDLING AND STORAGE**

<table>
<thead>
<tr>
<th>Handling</th>
<th>Store in a well ventilated area. Keep containers closed. Keep away from heat, sparks and flames. Use only with adequate ventilation. Avoid generating dust &amp; breathing vapour. Avoid contact with eyes, skin or clothing.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Storage</th>
<th>Store in tightly closed containers in a cool, dry &amp; well-ventilated place. Keep away from sunlight and combustible materials. Always keep the bag on wooden pallets.</th>
</tr>
</thead>
</table>

11. **SPILLAGE/ACCIDENTAL RELEASE**

<table>
<thead>
<tr>
<th>Spillage</th>
<th>Do not touch spilled material. Prevent it entering sewers. Dry manual lifting of the spilled material is suggested.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Personal Precautions</th>
<th>Avoid generation of dust. Avoid Eyes &amp; Skin Contact. Avoid Inhalation. Avoid Ingestion. Wear appropriate personal protective equipments.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Environmental Precautions</th>
<th>Prevent contamination of soil and water. Prevent from spreading or entering into sewers or confined spaces.</th>
</tr>
</thead>
</table>
12 WASTE DISPOSAL

Waste Disposal

Untreated SBP waste must never be discharged directly into sewers. Review National/Regional Regulations. Packing materials get contaminated & can be disposed off by appropriate methods in accordance with National / Regional requirement.

13 ENVIRONMENTAL INFORMATION

Bio - Accumulation

Not determined

Biodegradability

This material is inorganic and does not subject to biodegradation.

Toxicity

Non-toxic

Mobility

No

Behaviour in Sewage

Improves sewage quality

14 REGULATORY INFORMATION

Danger Symbol

- O Oxidizing
- C Corrosive
- N Dangerous for the environment

Risk Phrases

R40/R20/R22: Harmful; possible risk of irreversible effects if swallowed.
R36: Irritating to eyes
R8: Contact with combustible material may cause fire.
R50/53: Very toxic to aquatic organisms, may cause long term adverse effects
R31: Contact with acid liberates toxic gas
R34: Causes burns

Safety Phrases

S2: Keep out of the reach of children.
S24/25: Avoid contact with skin and eyes.
S23: Do not breathe gas/fumes/vapour/spray.
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 and show the label where possible
S61: Avoid release to the environment
15. TRANSPORT INFORMATION

UN No. & Symbols: 2208, “Oxidizing Substance”
EC No: 231-908-7
Road /Rail Transport: Not Known
Air Transport: Not Known

16. OTHER INFORMATION

Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.

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