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

1.1 Product identifiers
   Product name : Bleaching Powder
   CAS-No. : 7778-54-3

1.2 Relevant identified uses of the substance or mixture and uses advised against
   Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet
   Company : Central Drug House (P) Ltd
              7/28 Vardaan House
              New Delhi-10002
              INDIA
   Telephone : +91 11 49404040
   Email : care@cdhfinechemical.com

1.4 Emergency telephone number
   Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
   Classification according to Regulation (EC) No 1272/2008
   Oxidizing solids (Category 2), H272
   Acute toxicity, Oral (Category 4), H302
   Skin corrosion (Category 1B), H314
   Acute aquatic toxicity (Category 1), H400

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

   Classification according to EU Directives 67/548/EEC or 1999/45/EC
   O  Oxidising  R 8
   C  Corrosive   R34
   Xn Harmful    R22
                  R31
   N  Dangerous for the environment  R50

   For the full text of the R-phrases mentioned in this Section, see Section 16.

2.2 Label elements
   Labelling according Regulation (EC) No 1272/2008
Signal word: Danger

Hazard statement(s)
H272: May intensify fire; oxidiser.
H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H400: Very toxic to aquatic life.

Precautionary statement(s)
P220: Keep/Store away from clothing/ combustible materials.
P273: Avoid release to the environment.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor/ physician.

Supplemental Hazard information (EU)
EUH031: Contact with acids liberates toxic gas.

2.3 Other hazards - none

SECTION 3: Composition/information on ingredients

3.1 Substances
Molecular Weight: 142.98 g/mol
CAS-No.: 7778-54-3
EC-No.: 231-908-7
Index-No.: 017-012-00-7
Formula: Ca(OCl)_2

Hazardous ingredients according to Regulation (EC) No 1272/2008

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium hypochlorite</td>
<td>Ox. Sol. 2; Acute Tox. 4; Skin Corr. 1B; Aquatic Acute 1; H272, H302, H314, H400, EUH031</td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>7778-54-3</td>
<td>&lt;= 100 %</td>
</tr>
<tr>
<td>EC-No.</td>
<td>231-908-7</td>
<td></td>
</tr>
<tr>
<td>Index-No.</td>
<td>017-012-00-7</td>
<td></td>
</tr>
</tbody>
</table>

Hazardous ingredients according to Directive 1999/45/EC

<table>
<thead>
<tr>
<th>Component</th>
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<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium hypochlorite</td>
<td>O, C, N, R 8 - R22 - R31 - R34</td>
<td>&lt;= 100 %</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>7778-54-3</td>
<td></td>
</tr>
<tr>
<td>EC-No.</td>
<td>231-908-7</td>
<td>R50</td>
</tr>
<tr>
<td>Index-No.</td>
<td>017-012-00-7</td>
<td></td>
</tr>
</tbody>
</table>

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

SECTION 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.

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.

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

4.2 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

4.3 Indication of any immediate medical attention and special treatment needed
no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Dry powder

5.2 Special hazards arising from the substance or mixture
Hydrogen chloride gas, Calcium oxide

5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information
no data available

SECTION 6: Accidental release measures

6.1 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.

6.2 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.

6.3 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.

6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. 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.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. 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.

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated
SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

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

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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance
Form: powder
Colour: beige

b) Odour
no data available

c) Odour Threshold
no data available

d) pH
no data available

e) Melting point/freezing point
Melting point/range: 100 °C

f) Initial boiling point and boiling range
no data available

g) Flash point
not applicable

h) Evaporation rate
no data available

i) Flammability (solid, gas)
no data available

j) Upper/lower flammability or explosive limits
no data available

k) Vapour pressure
no data available
9.2 Other safety information
no data available

SECTION 10: Stability and reactivity

10.1 Reactivity
no data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
no data available

10.4 Conditions to avoid
no data available

10.5 Incompatible materials
Incompatible with acids,, Strong reducing agents

10.6 Hazardous decomposition products
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - rat - 850 mg/kg

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
no data available

Respiratory or skin sensitisation
no data available

Germ cell mutagenicity
Hamster
fibroblast
Cytogenetic analysis

Carcinogenicity
IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Calcium hypochlorite)
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

Additional Information
RTECS: Not available

SECTION 12: Ecological information

12.1 Toxicity
Toxicity to fish
LC50 - Lepomis macrochirus - 0.057 mg/l - 96.0 h
Toxicity to daphnia and other aquatic invertebrates
EC50 - Daphnia magna (Water flea) - 0.067 mg/l - 48 h

12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential
no data available

12.4 Mobility in soil
no data available

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects
Very toxic to aquatic life.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
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.

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number
ADR/RID: 1748
IMDG: 1748
IATA: 1748

14.2 UN proper shipping name
ADR/RID: CALCIUM HYPOCHLORITE, DRY
IMDG: CALCIUM HYPOCHLORITE, DRY
IATA: Calcium hypochlorite, dry

14.3 Transport hazard class(es)
ADR/RID: 5.1
IMDG: 5.1
IATA: 5.1

14.4 Packaging group
ADR/RID: II
IMDG: II
IATA: II
14.5 Environmental hazards
ADR/RID: yes IMDG Marine pollutant: yes IATA: no

14.6 Special precautions for user
no data available

SECTION 15: Regulatory information
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available

15.2 Chemical Safety Assessment
For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox. Acute toxicity
Aquatic Acute Acute aquatic toxicity
EUH031 Contact with acids liberates toxic gas.
H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H400 Very toxic to aquatic life.
Ox. Sol. Oxidizing solids
Skin Corr. Skin corrosion

Full text of R-phrases referred to under sections 2 and 3

C Corrosive
N Dangerous for the environment
O Oxidising
R 8 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.

Further information
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.