Aditya Birla Chemicals (India) Limited

REHLA, JHARKHAND

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE PRODUCT AND COMPANY

1.1. Product Name	: Stable Bleaching Powder (Calcium Hypochlorite)
1.2. Chemical Formula	: $Ca(OCl)_2$
1.3. Use	: Disinfections, Sanitation, Bleaching Oxidation, etc.
1.4. Manufacturer	: Aditya Birla Chemicals (India) Limited REHLA, JHARKHAND **TEL. No. 06584-262211 / 262221** **FAX NO. 06584-262205** **E-Mail:** abcil@adityabirla.com
1.5. Supplier	:

2. COMPOSITION & IDENTIFICATION INGREDIENTS

2.1. Chemical Identity	: Calcium Hypo Chlorite
2.2. Ingredients	: Calcium Hypo Chlorite 35% Available Chlorine

3. HAZARD IDENTIFICATION

3.1. Oxidizing Substance, Class - 5.1

4. FIRST – AID MEASURES

4.1. Skin and Eye Contact	: Promptly wash the affected area with plenty of water and obtain medical attention immediately.
4.2. Inhalation	: Move the victim to fresh Air, obtain medical attention. In case of respiratory failure provide artificial respiration.
4.3. Ingestion	: Have victim rinse mouth thoroughly with water & drink plenty of water to dilute material in the stomach. But never give anything by mouth if victim is unconscious. Obtain medical attention immediately.

5. FIRE FIGHTING MEASURES

5.1. Extinguishing Media	: Water
5.2. Unsuitable Extinguishing Media	: Not Known
5.3. Special Exposure Hazards	: Chlorine Gas
5.4. Special Protective Equipment	: Self contained Breathing Apparatus
5.5. Combustion Products	: Non Combustible but decomposes due to heat

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions	: Avoid Eye & Skin contact. Avoid inhalation. Use appropriate personal protective equipments.
6.2. Environmental Precautions	: Prevent material entering to sewers or confined spaces.
6.3. Clean up procedure	: Do not touch spilled material. Prevent it entering sewers. Dry manual lifting of spilled material is suggested.

7. HANDLING AND STORAGE

7.1. Handling Precautions	: Avoid generating dust. Avoid skin & eye contact. General ventilation is required.
7.2. Storage	: Store tightly closed containers in cool, dry & well-ventilated place. Keep away from sunlight. Keep away from combustible materials.

7. HANDLING AND STORAGE

7.3. Incompatible Materials	: Acids, organic compounds, Metal oxides, Ammonia, urea & amines etc.
7.4. Other Information	: The storage area should have a non-combustible & corrosion resistant floor.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1. Exposure Controls	: Adequate ventilation. Process or Personnel enclosures, P.P.E. etc. Avoid dust generation.
8.2. Personal Protective Equipment	:
8.2.1. Respiratory Protection	: Anti Dust mask & Respirator with an acid gas cartridge for chlorine.
8.2.2. Eye Protection	: Chemical Safety Goggles & face shield
8.2.3. Skin Contact	: Impervious rubber hand gloves, coveralls, boots etc.
8.2.4. Hygiene Measures	: Wash hands with soap & water thoroughly after handling, especially before eating. Also change contaminated clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Appearance	
9.1.1. Form	: Powder
9.1.2. Colour	: White
9.1.3. Odour	: Chlorine Odour
9.2. Safety Data	
9.2.1. pH	: 11.5 (5% Solution)
9.2.2. Boiling Point	: Not Applicable
9.2.3. Melting Point	: Decomposes at temperatures above 100 degree C
9.2.4. Flash Point (Closed Cup)	: Not Applicable
9.2.5. Flammability (Solid, Gas)	: Not Combustible
9.2.6. Auto flammability	: Not Applicable
9.2.7. Explosive Properties	: Strong Oxidising Agent, so it has serious fire and explosion risk
9.2.8. Oxidising Properties	: Strong Oxidiser
9.2.9. Vapour Pressure	: Not Applicable
9.2.10. Bulk Density	: 0.9 – 1.1 gm/cc

9. PHYSICAL AND CHEMICAL PROPERTIES

9.2.11. Solubility	
In water	: 23.4 gms/100 ml. Water at 40 degree C
In solvents	: Not Known
9.2.12. Partition coefficient (Water)	: Not Known
9.3. Other Data	
9.3.1. Vapour Density	: Not Applicable
9.3.2. Evaporation Rata	: Not Applicable
9.3.3. Conductivity	: Not Known
9.3.4. Viscosity	: Not Applicable
9.3.5. Volatiles	: Non Known

10. STABILITY AND REACTIVITY

10.1. Stability	: Normally unstable (losses available chlorine by 2% on heating at 100 degree C).
10.2. Reactivity	: Reactive
10.3. Conditions to avoid	: Excessive Heat
10.4. Materials to avoid	: Incompatible Materials (See 7.3)
10.5. Hazardous decomposition (Products)	: Nacent Oxygen, Chlorine, Calcium Chlorate

11. TOXICOLOGICAL INFORMATION

11.1. Health Effects	
11.1.1. Skin & Eye	: Dust can cause eye irritation. Solution can cause chemical burns.
11.1.2. Inhalation	: Dust may irritate nose, throat & upper respiratory tract.
11.1.3. Ingestion	: May cause burns to the mouth & digestive tract.
11.2. Other effects	: Skin irritation may occur from repeated or prolonged skin contact.
11.3. LD_{50} Oral (Rat)	: 805 mg/Kg.

12. ECOLOGICAL INFORMATION

12.1. Mobility	: No

12. ECOLOGICAL INFORMATION

12.2. Persistence and Degradability	: Degradable
12.3. Bioaccumulative Potential	: Not determined
12.4. Ecotoxicity	: Non-Toxic
12.5. Behaviour in Sewage	: Improves sewage quality.

13. DISPOSAL CONSIDERATIONS

13.1. Product Disposal	: Untreated SBP waste must never be discharged directly in to sewers. Review National / Regional regulations
13.2. Packaging Disposal	: Packing material does not get contaminated & can be disposed off by usual methods in accordance with National or Regional requirement.

14. TRANSPORT INFORMATION

14.1. UN No. & Symbols	: 2208, "Oxidizing Substance".
14.2. Road and Rail Transport (ADR/RID)	: Not Known
14.3. GGVE / GGVS	: Not Known
14.4. IMDG Code	: Not Known
14.5. Air Transport (ICAO/IATA)	: Not Known
14.6. P Phrases	: Not Known
14.7. S Phrases	: Not Known

15. REGULATORY INFORMATION

15.1. Health and Safety Information on Labels	: Oxidising Material Class – 5.1
15.2. RTECS	: Not Known

16. OTHER INFORMATION

The information & date contained in the "Material Safety Date Sheet" is drawn from following sources:

a) CIS (No. C40) of Indian Chemical Manufactures Association

b) CHEMINFO of Canadian Centre of Occupational Health & Safety.

c) Our own experience.