



AB CHLORIDE

AB CHLORIDE INDIA PRIVATE LIMITED

SAFETY DATA SHEET

STABLE BLEACHING POWDER

Calcium Hypochlorite

Ref: MSDS/ABC/GDM/SBP

Revision Date: Rev-0/Feb 2022

1. IDENTIFICATION OF SUBSTANCE

Trade Marks and Synonyms (if any)	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	AB Chloride India Pvt. Ltd. Bhimasar, Gandhidham, Dist. Kutch (Gujarat) 370201, INDIA www.abchloride.com
Information Centre	Office no. 502, Near Rani Bagh BTW Aggarwal Perstige Mall, Pitampura DELHI North West DL 110034
Emergency telephone number	Telephone: +91-8401102193
Relevant identified uses of the product:-	As a Disinfectant for water treatment, As a bleaching agent in textile industry, As a sanitizer in epidemic control, In Aqua Culture, In Carpet Industry, In Pulp and Paper Industry, In Health departments, Hotels, Offices, Homes etc.

2. INFORMATION OF MAJOR INGREDIENTS

Chemical Name	Calcium Hypo chlorite
CAS No	7778-54-3
Formula	Ca(OCl) ₂
Available chlorine	32 - 37 %

3. HAZARD IDENTIFICATION**3.1 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

3.2 Label Element

Labelling according Regulation (EC) No 1272/2008

Signal Word Danger

Hazard Pictogram



Hazard Statements

H272 May intensify fire; oxidizer.

H302 Harmful if swallowed.

Precautionary Statements

Prevention P220 Keep/Store away from clothing/ combustible materials.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

Response	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/doctor/... P363 - Wash contaminated clothing before reuse
Storage	P405 - Store locked up P404 + P233 - Store in a well-ventilated place. Keep container tightly closed.
Disposal	P501 - Dispose of contents/container to Comply with applicable regulations
Supplemental Hazard information (EU)	EUH031- Contact with acids liberates toxic gas.

3.3 Other Hazards: - None**4 FIRST AID MEASURES****Description of 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
Further Medical Advice	Seek medical attention

5 FIRE AND EXPLOSIVE HAZARD DATA

Suitable extinguishing media	Calcium hypochlorite does not burn. Extinguish fire using extinguishing agents suitable for the surrounding fire and not contraindicated for use with calcium hypochlorite. Calcium hypochlorite is an oxidizing agent. Therefore, flooding quantities of water spray or fog should be used to fight fires involving calcium hypochlorite
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Unsuitable Extinguishing Media	DO NOT use dry chemical fire extinguishing agents containing ammonium compounds (such as some A:B:C agents), since an explosive compound can be formed. DO NOT use carbon dioxide, dry chemical powder or other extinguishing agents that smother flames, since they are not effective in extinguishing fires involving oxidizers.
Special Protective Equipment and Precautions for Fire-Fighters	The decomposition products of calcium hypochlorite, such as chlorine and hydrogen chloride are extremely hazardous to health. Do not enter without wearing specialized protective equipment suitable for the situation. Firefighter's normal protective equipment (Bunker Gear) will not provide adequate protection. Chemical protective clothing (e.g. chemical splash suit and positive pressure self-contained breathing apparatus (NIOSH approved or equivalent)) may be necessary.
Specific Hazards Arising From the Chemical	Calcium hypochlorite can undergo accelerated decomposition with the release of significant amounts of heat, chlorine and oxygen, forming an oxygen-rich atmosphere. The heat from the decomposition of calcium hypochlorite combined with an oxygen-rich atmosphere can cause flammable materials to ignite. Fires and explosions involving calcium hypochlorite have occurred. Calcium hypochlorite is a serious fire and explosion hazard when contaminated with or comes in contact with oxidizable, combustible materials (e.g. cloth, greases, leather, oils and solvents, paper, sawdust, rubber, plastics and wood). In these situations, there may be spontaneous ignition and explosion. It decomposes explosively under intense fire conditions and closed containers may rupture violently due to rapid decomposition, if exposed to fire or excessive heat for a sufficient period of time. Combustion and thermal decomposition products include: chlorine, hydrogen chloride gas, oxygen gas and calcium oxides.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Prevent material from entering sewers. Flush with water to remove any residue. Response to a large quantity spill (100 pounds or greater) or when dusting or decomposition gas exposure could occur requires the use of a positive pressure full face supplied air respirator or self-contained breathing apparatus (SCBA), chemical resistant gloves, coveralls and boots. In case of fire, this personal protective equipment should be used in addition to normal fire fighter equipment.
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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.

Methods and materials for containment and cleaning up Do not touch spilled material. Prevent material entering sewers or confined spaces. Keep materials which can burn away from spilled material. Assume the spilled material to be contaminated.

Small Spills: Collect, using a clean, dry, shovel, transfer to a container, which contains water. Carefully destroy the hypochlorite by adding hydrogen peroxide (one pint of 35% hydrogen peroxide solution per pound of calcium hypochlorite). Hydrogen peroxide reacts with calcium hypochlorite to form calcium chloride and oxygen gas. Do not close container. Other chemicals, which can be used to break down calcium hypochlorite, are sodium sulfite and sodium bisulfite. Once the calcium hypochlorite is reduced with either sodium sulfite or sodium bisulfite, the remaining solution should be neutralized cautiously with dilute hydrochloric or sulfuric acid.

Large Spills: Contact fire and emergency services and the supplier for advice.

Additional Information:-All spills of this product should be treated as contaminated. Contaminated product may initiate a chemical reaction that may spontaneously ignite any combustible material present, resulting in a fire of great intensity. In case of a spill, separate all spilled product from packaging, debris and other material. Using a clean broom or shovel, place all spilled product into plastic bags, and place those bags into a clean, dry disposal container, properly marked and labeled. Disposal containers made of plastic or metal are recommended. Do not seal disposal containers tightly. Immediately remove all product in disposal containers to an isolated area outdoors. Place all damaged packaging material in a disposal container of water to assure decontamination (i.e. removal of all product) before disposal. Place all undamaged packaging in a clean, dry container properly marked and labeled.

7 HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with skin, clothing and eyes. Avoid generating dust & breathing vapour. 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. Use proper equipment for lifting and transporting all containers. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.

Conditions for safe storage, including any incompatibilities

Keep product tightly sealed in original containers. Store product in a cool, dry, well-ventilated area. Store away from combustible or flammable products. Keep product packaging clean and free of all contamination, including, e.g., other pool treatment products, acids, organic materials, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, all corrosive liquids, flammable or combustible materials, etc. Do Not Store At Temperatures above: 35°C (95°F). Storage above this temperature may result in rapid decomposition, evolution of chlorine gas and heat sufficient to ignite combustible products.

Other Precautions:

Shelf Life Limitations: Shelf life (that is, the period of time before the product goes below stated label strength) is determined by storage time and temperature. Do not store product at temperatures above 35°C (95°F). When stored under moderate temperature conditions, product will maintain stated label strength for approximately two years. Prolonged storage at 35°C (95°F) or above will significantly shorten the shelf life. Storage in a climate-controlled storage area or building is recommended in those areas where extremes of high temperatures occur.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Occupational exposure limits: No data available.

Biological exposure indices (BEI): No data available.

Additional exposure limits under the conditions of use: No data available.

Exposure control:

Appropriate engineering controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain dust levels below the recommended exposure standard.

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.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odour	Powder, White solid with odour of chlorine
pH	11.5 (5% solution)
Chlorine Content	32.0 – 36.0 % 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

10 STABILITY AND REACTIVITY

Reactivity	Strong oxidizing agent Do not use together with other products. May release dangerous gases (chlorine).
Chemical stability	Stable at specified storage condition. Normally unstable (losses available chlorine by 2% on heating above 100 °C). Decomposes above 180 °C. Heating may cause an explosion.
Possibility of hazardous reactions	Contact with acids liberates toxic gas. Exothermic reaction on heating
Conditions to avoid	<ul style="list-style-type: none"> - Avoid contact with acids and alkalis - Avoid contact with combustible material - Avoid contact with foodstuffs - Avoid contact with reducing agents - Keep away from heat and sources of ignition - Avoid contact with moisture
Material to avoid	<ul style="list-style-type: none"> - Incompatible with acids and alkalis - Incompatible with reducing agents - Contact with water may form explosive gases - Contact with acids liberates toxic gas. - Avoid contact with aluminium, zinc, copper and tin - Avoid contact with mild or stainless steel - Avoid contact with moist air
Hazardous Decomposition Products	Decomposition products may include considerable amounts of gas. Decomposition products include chlorine.

11 TOXICITY DATA

Routes of Entry	
In contact with skin	Solution can cause chemical burns
In contact with eyes	Dust can cause eye irritation
Inhalation	Dust may irritate nose, throat & upper respiratory tract
Ingestion	May cause burns to the mouth & digestive tract
Toxicity Data:-	LC50(inhalation, rat, 1 hour)= 1300mg/m3 based on chlorine LD ₅₀ (Rats, Oral) 805 mg/kg LD ₅₀ (Rabbit, Dermal) >2000 mg/kg
Chronic Toxicity	Not Available
Carcinogenic Toxicity	No data available
Mutagenic Toxicity	Studies for mutagenicity were negative.
Reproductive Toxicity	No information is available.

12. ENVIRONMENTAL INFORMATION

Toxicity	No data available
Persistence and degradability	No data available
Bio-accumulative potential	Not determined
Mobility in soil	No. Large volumes may penetrate soil and contaminate groundwater.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Other adverse effects	Very toxic to aquatic life.

13 WASTE DISPOSAL

Waste Disposal	Untreated SBP waste must never be discharged directly in to sewers. Review National/Regional Regulations. Packing materials gets contaminated & can be disposed off by appropriate methods in accordance with National / Regional requirement.
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14. TRANSPORT

UN Number	UN 2208
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**Land Transport (ADR/RID)**

UN Number	UN 2208
UN proper shipping Name	CALCIUM HYPOCHLORITE MIXTURE, DRY with more than - 10% but not more than 39% available chlorine
Hazard class:	5.1
Hazard label:	5.1
Packaging group	III
Environmental Hazard	No

Inland Waterway Transport (ADNR)

UN Number	UN 2208
UN proper shipping Name	CALCIUM HYPOCHLORITE MIXTURE, DRY with more than - 10% but not more than 39% available chlorine

Hazard class:	5.1
Hazard label:	5.1
Packaging group	III
Environmental Hazard	No

Sea Transport (IMDG)

UN Number	UN 2208
UN proper shipping Name	CALCIUM HYPOCHLORITE MIXTURE, DRY with more than - 10% but not more than 39% available chlorine
Hazard class:	5.1
Hazard label:	5.1
Packaging group	III
Environmental Hazard	No
Marine Pollutant	No
EmS No.	F-H S-Q

Air transport (ICAO/IATA)

UN Number	UN 2208
UN proper shipping Name	CALCIUM HYPOCHLORITE MIXTURE, DRY with more than - 10% but not more than 39% available chlorine
Hazard class:	5.1
Hazard label:	5.1
Packaging group	III
Environmental Hazard	No

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:-
No data available

Chemical Safety Assessment:-

For this product a chemical safety assessment was not carried out

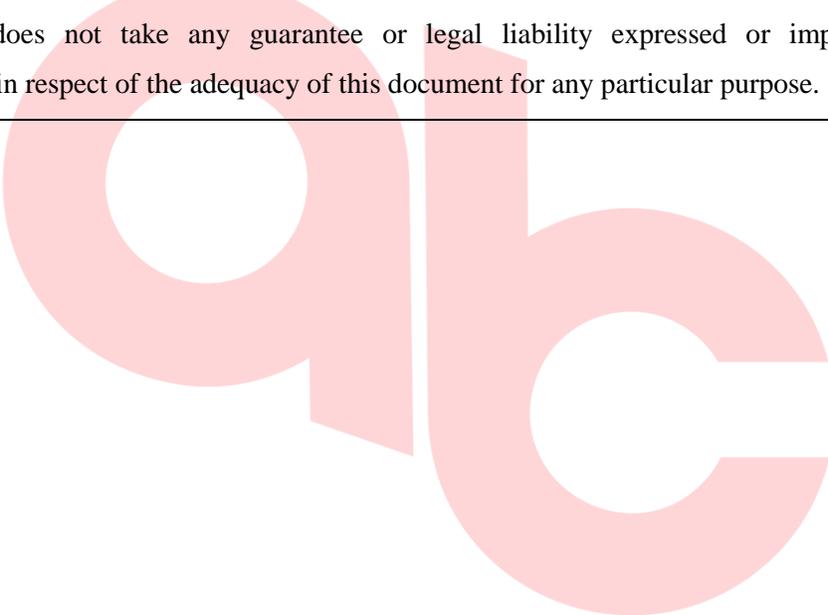
16. OTHER INFORMATION

None

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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