



Lee & Man Chemical

Safety data sheet for chemical product

Sodium hypochlorite

NaClO

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Sodium hypochlorite

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

Product name:

Sodium hypochlorite solution

Company name:

Jiangsu Lee & Man Chemical Company Limited/ Jiangxi Lee & Man Chemical Company Limited

Address:

No. 6-2, Xinggang Road, Changshu Economic and Technological Development Zone, Jiangsu Province
Dock Industrial City, Jiujiang City, Jiangxi Province

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Email address:

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Recommended use:

Used for water purification, as a disinfectant, pulp bleaching, etc., used in the pharmaceutical industry to produce chloramines, etc.

Restricted use:

Restricted use: No relevant information was found.

SECTION 2: Hazards identification

Emergency Overview: Causes severe skin burns and eye damage.

GHS Hazard Category:

Skin corrosion/irritation, Category 1B;

Serious eye damage/eye irritation, Category 1;

Aspiration hazard - Category 2;

Hazardous to the Aquatic Environment - Acute Hazard, Category 1;

Hazardous to the Aquatic Environment - Long Term Hazard, Category 1.

Label elements:

Pictograms:



Warning word: Danger

Hazard Statements:

Hazard Statements: Causes severe skin burns and eye damage, very toxic to aquatic life with long lasting effects, may cause respiratory irritation.

Precautionary Statements:

• Precaution

- Thoroughly wash the body contact area after operation. Contaminated work clothes should also be washed thoroughly.
- Wear protective gloves, protective clothing, protective glasses, and protective face shields.
- Avoid breathing fumes. Avoid contact with eyes, skin or clothing.
- Prohibited discharge into the environment.

• Incident response

- IF INHALED: Remove victim to fresh air and rest in a position comfortable for breathing. Get medical attention immediately.
- Skin (or hair) contact: Immediately remove all contaminated clothing, rinse skin with water, and shower. Contaminated clothing must be washed before reuse.
- Contact with eyes: Rinse carefully with water for several minutes. If contact lenses are worn and can be easily removed, remove contact lenses and continue rinsing. Seek medical attention.
- Ingestion: Rinse mouth, do not induce vomiting.
- Collect spillage.

Safe storage - Store in a well-ventilated place. Keep cool.

Disposal - Dispose of this product, its contents and containers in accordance with national and local regulations (regulations).

Physical and chemical hazards: non-flammable, no special explosive characteristics.

Health Hazards:

Routes of entry: inhalation, ingestion, skin contact

Inhalation of hypochlorous acid aerosol can cause respiratory reactions and even pulmonary edema. A large amount of oral corrode the digestive tract, can produce methemoglobinemia. Eye and skin contact can cause burns. Workers who often touch this product with their hands will sweat profusely on their palms, thin their nails, and lose their hair. This product has a sensitizing effect. The free chlorine released by this product may cause poisoning.

Environmental Hazards: Very toxic to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients

Substance: ×

Mixture: ✓

Main ingredient: Sodium hypochlorite

Molecular weight: 74.44

CAS-No.: 7681-52-9

Formula: NaClO

SECTION 4: First aid measures

Inhalation: quickly leave the scene to fresh air, keep the airway open. If breathing is difficult, give oxygen. If breathing or heartbeat stops, perform CPR immediately. Seek medical attention.

Skin contact: Immediately remove contaminated clothing and rinse thoroughly with plenty of running water for at least 15 minutes. Seek medical attention.

Eye contact: Immediately lift the eyelids and rinse thoroughly with running water or normal saline for at least 5-10 minutes. Seek medical attention.

Ingestion: Rinse mouth with water, do not induce vomiting. Give milk or egg whites. Seek medical attention.

Special note to doctors: Methemoglobinemia, which can be treated with methylene blue and vitamin C.

SECTION 5: Firefighting measures

Fire-fighting precautions and protective measures: Firefighters must wear full-body acid-alkali-resistant fire-fighting clothing and air breathing apparatus to extinguish the fire. Keep fire containers cool with water spray. Rescuers must be rescued from a safe distance. Move the container from the fire area to an open area as much as possible.

Extinguishing agent: This product is not flammable. Choose the appropriate extinguishing agent according to the cause of the fire.

Hazardous characteristics: Toxic and corrosive fumes are produced by high thermal

decomposition. Reacts violently with flammable and reducing substances, and releases chlorine gas when reacting with acids. Corrosive.

SECTION 6: Accidental release measures

Protective measures, protective equipment and emergency procedures for operators:

Delineate a warning area according to the impact area of liquid flow and vapor diffusion, and evacuate unrelated personnel to a safe area from the crosswind and upwind directions. It is recommended that emergency responders wear positive pressure self-contained breathing apparatus, acid and alkali resistant clothing and rubber gloves. Do not touch ruptured containers and spills without wearing appropriate protective clothing. Cut off sources of leaks as much as possible.

Environmental protection measures: Prevent leakage from entering restricted spaces such as water bodies, sewers, and flood drains. Containment and removal of spilled chemicals: For small spills, absorb or cover with dry sand or other non-combustible materials, and collect in containers.

Large spills: Construct dikes or dig pits for containment. Transfer to a tanker or special collector with a corrosion-resistant pump.

SECTION 7: Handling and storage

Operation and disposal: closed operation, full ventilation. Operators must undergo special training and strictly abide by operating procedures. It is recommended that operators wear direct gas masks (half masks), chemical safety glasses, anti-corrosion work clothes, and rubber gloves. Prevent vapors from leaking into the workplace air. Avoid contact with alkalis. When handling, it should be lightly loaded and unloaded to prevent damage to packaging and containers. Equipped with leakage emergency treatment equipment. Empty containers may be harmful residues.

Storage Precautions: Store in a cool, ventilated warehouse. Keep away from fire and heat sources. The storage temperature should not exceed 30°C. It should be stored separately from alkalis, and should not be mixed. Storage areas should be equipped with emergency release equipment and suitable containment materials.

SECTION 8: Exposure controls/personal protection

Occupational exposure limits:

China (MAC) mg/m³ has no standard

United States (ACGIH) No standard set

Biological Exposure Limits: No standard established.

Monitoring method: Determination method of toxic substances in the air: No standard has been established.

Biomonitoring test methods: No standard established.

Engineering Control: The production process is airtight and fully ventilated. Safety showers and eye wash facilities are provided. Set up emergency evacuation channels and cofferdams.

Respiratory protection: In high concentration environments, filter respirators (half masks) should be worn.

Hand Protection: Wear rubber gloves. **Eye Protection:** Wear chemical safety goggles.

Skin and body protection: Wear anti-corrosion work clothes.

Others: Smoking, eating and drinking are strictly prohibited at the work site. After work, take a shower and change clothes. Pay attention to personal hygiene.

SECTION 9: Physical and chemical properties

Appearance and properties: slightly yellow solution

Odor: chlorine-like odor

pH value: 9~10

Melting point (°C): -6

Boiling point (°C): 40 (decomposition)

Flash point (°C): meaningless

Upper explosion limit [% (V/V)]: meaningless

Lower explosion limit [% (V/V)]: meaningless

Saturated vapor pressure (kPa): No relevant information found

Relative vapor density (air=1): No information available

Relative density (water=1): 1.21

Solubility: soluble in water Octanol/water partition coefficient: -3.42

Auto-ignition temperature (°C): No information available

Critical temperature (°C): No relevant information found

Critical pressure (MPa): No information

SECTION 10: Stability and reactivity

Stability: Stable

Conditions to Avoid: Heat, Light

Incompatible materials: alkalis, acids Dangerous (decomposition) products: chlorides, chlorine gas

Hazardous reactions: Strong reactions may occur in contact with incompatible materials such as strong reducing agents, flammable or combustible materials

SECTION 11: Toxicological information

Acute toxicity: LD50: 8500 mg/kg (oral in rats)

Skin irritation or corrosion: No information available.

Eye irritation or corrosion: Rabbit via eye: 10mg, moderate irritation.

Respiratory or skin sensitization: No information available.

Germ cell mutagenicity: Microbial mutagenicity: Salmonella typhimurium 1 mg/dish. DNA damage: Escherichia coli 420 μ mol/L. Cytogenetic analysis: Human lymphocytes 100 ppm/24h. Sister chromatid exchange: 149 mg/L in human embryos.

Carcinogenicity: IARC Carcinogenicity Review: Group 3, the available evidence cannot classify human carcinogenicity. Insufficient evidence of carcinogenicity in humans and animals.

Reproductive toxicity: No information available.

Specific Target Organ Toxicity - Single Exposure: No information available.

Specific target organ toxicity - repeated exposure: No information available.

Aspiration Hazard: No information available.

SECTION 12: Ecological information

Ecotoxicity: LC50 0.033~0.06mgTRC/L (fish), 0.005mgFAC/L (24h) (reticulate flea) NOEC 0.005mgTRC/L (134d) (fish); 0.003mgTRC/L (7d), 0.0021mgFAC/ L(7d) (algae) (TRC = total residual chlorine, FAC = free available chlorine).

Persistence and Degradability: No information available.

Bioaccumulative potential: No data available.

Mobility in soil: No data available.

SECTION 13: Disposal considerations

Waste Chemicals: Recycle if possible. Dispose of and neutralize in a prescribed treatment plant. Filter out solids and bury them in specified places as hazardous wastes.

Contaminated Packaging: Return container to manufacturer or dispose of in accordance with national and local regulations.

Disposal Precautions: Please refer to relevant national and local regulations before disposal.

Damaged containers are not allowed to be reused and must be buried in specified places.

SECTION 14: Transport information

United Nations Dangerous Goods Number (UN Number): 1791

UN Shipping Name: Hypochlorite Solution (Sodium Hypochlorite)

United Nations hazard class: Class 8

Packing group: Class III packing

Packaging logo:



Marine Pollutants: Yes

Packing method: ordinary wooden box or semi-lattice wooden box outside glass bottle or plastic barrel (can).

Transportation Precautions: The packaging should be complete and the loading should be secure at the time of departure. During transportation, make sure that the container does not leak, collapse, fall or be damaged. It is strictly forbidden to mix and transport with alkalis, edible chemicals, etc. The transport vehicle shall be equipped with leakage emergency treatment equipment during transportation. During transportation, it should be protected from exposure to sunlight, rain, and high temperature. When transporting by road, it is necessary to drive according to the prescribed route, and do not stop in residential areas and densely populated areas.

SECTION 15: Regulatory information

The following laws, regulations, rules and standards make corresponding provisions for the management of this chemical.

Law of the People's Republic of China on the Prevention and Control of Occupational Diseases

Classification and Catalogue of Occupational Diseases: Not listed;

Regulations on the Safety Management of Hazardous Chemicals: Catalogue of Hazardous Chemicals: Included. Inventory of explosive hazardous chemicals: not listed.

List of hazardous chemicals under key supervision: not listed. GB18218-2018 "Identification of Major Hazardous Sources of Hazardous Chemicals" (Table 1): not listed;

Labor Protection Regulations for Workplaces Using Toxic Substances List of Highly Toxic Substances: Not listed;

Regulations on the Administration of Precursor Chemicals Classification and Variety List of Precursor Chemicals: Not listed.

SECTION 16: Other information

References:

- (1) The latest practical manual for chemical dangerous goods;
- (2) Complete book on safety technology of hazardous chemicals;

Disclaimer:

The information in this SDS applies only to the specified product, unless otherwise specified, all substances in this product have unknown hazards and should be used with care. While certain hazards are described in this SDS, we do not guarantee that these are the only hazards. This SDS provides information on the safety of product use only for those users of this product who have received appropriate professional training. The relevant data is only used as a guide for safe handling, use, processing, storage, disposal and leakage, etc., and cannot be used as an indicator of guarantee and quality.