


Material Safety Data Sheet		
Sodium Hydroxide		
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1. Chemical Product and Company Identification

INCI name: Sodium Hydroxide

CAS No.: 1310-73-2

Chemical structure: NaOH

Trade name: Caustic Soda Flakes

Product application: Widely used as the primary surfactant in household and industrial detergents.

Supplier name: GUANGZHOU YESER CHEMICALS CO., LTD

Supplier address: Room 903-05, Building E, Longxi Center, No.18 Qide Road, Guangzhou City, China

Website: yeserchem.com **E-mail:** info@yeserchem.com

Contact number: +86-20- 86213761 400-0768-668

Emergency contact number: +86-20- 86213761

2. Hazards Identification

Label symbol:



Signal Word: DANGER

Hazard Category:

Skin Corrosion/Irritation Hazard Category 2

Eye Damage/Irritation Hazard Category 1

Sensitization-Skin Hazard Category 1B

Corrosive to Metals Hazard Category 1

Acute Toxicity-Oral Hazard Category 4

Hazard Statements:

H312 Harmful in contact with skin

H314 Causes severe skin burns and eye damage


H402 Harmful to aquatic life

Prevention:

P102 Keep out of reach of children.

P103 Read label before use.

P234 Keep only in original container.

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P260 Do not breathe fume, gas, mist, vapors or spray.
P264 Wash hands, face and all exposed skin thoroughly after handling.
P280 Wear protective clothing, gloves, eye/face protection and suitable respirator.

Response:

P101 If medical advice is needed, have product container or label at hand.
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.
P363 Wash contaminated clothing before reuse.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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 CENTRE or doctor/physician.
P390 Absorb spillage to prevent material damage.

Storage:

P405 Store locked up.
P406 Store in original container with a resistant inner liner.


Disposal:

P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

3. Composition/Information on Ingredients

Component	CAS NO.	Percentage, %
Sodium hydroxide	1310-73-2	98%~99.8%
Sodium carbonate	497-19-8	0.5%~1.0%
Sodium chloride	7647-14-5	0.03%~0.08%
Iron(III) oxide	1309-37-1	0.005%~0.01%

4. First aid Measures

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After Inhalation:

Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

After Skin Contact:

If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance. For gross contamination, immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is insoluble). For skin burns, cover with a clean, dry dressing until medical help is available. If blistering occurs, do NOT break blisters.

After Eye Contact:

Immediately irrigate with copious quantities of water for 15 minutes. Eyelids to be held open.
Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport to hospital or medical center.

After Ingestion:

Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

Notes to physician: Treat symptomatically. Can cause corneal burns.

5. Fire-fighting Measures

General information:

The product poses little risk of ignition. If it happens to be involved in a fire, keep the tank cooled by means of a water spray in order to avoid decomposition of the product.

Auto-Ignition Temperature:


Not Applicable.

Flash Point:

Not Applicable.

Means of extinction:

Use water spray, Carbon Dioxide, Dry Chemical, or Alcohol Foam. Use water to keep fire-exposed container cool.

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Personnel:

Fire fighters should wear full protective clothing, including self-contained breathing equipment

Specific hazards:

Not Applicable.

6. Accidental Release Measures

SMALL SPILLS

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapors. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

LARGE SPILLS

Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapors. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Avoid release to the environment.

7. Handling and storage


Handling:

Avoid eye contact and skin contact. Avoid inhalation of vapor, mist or aerosols.

Storage:

Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Store locked up. Store in corrosive resistant container with a resistant inner liner. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks.
This material is classified as a Class 8 Corrosive as per the criteria of Globally Harmonized System (GHS) and must be stored in accordance with the relevant regulations.
This material is a Scheduled Poison Schedule 6 (Poison) and must be stored, maintained and used in accordance with the relevant regulations.

8. Exposure controls/personal protection

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Respiration: Air respirator

Eyes: Chemical safety goggles with face shield.

Feet: Safety Shoes/Gum Boots.

Body: Aprons.

Skin: Alkali resistant rubber.

Hygiene precautions: Handle in accordance with good industrial hygiene and safety practice.

Wash hands before breaks and at the end of workday.

9. Physical and chemical properties

Appearance: white crystalline flakes	Evaporation Rate NOT AVAILABLE
Odor: no odor	Solubility (Water): 54% approximately
Bulk density: 2.12 g/ml	Boiling Point: 1388°C Upper Explosion
pH value: 14 (1% solution)	Melting Point: 318.4 °C
Volatiles: NOT AVAILABLE	Flash Point: NOT RELEVANT
Vapor Pressure: NOT AVAILABLE	Upper Explosion Limit: NOT RELEVANT
Flammability: NON FLAMMABLE	Lower Explosion Limit: NOT RELEVANT

10. Stability and reactivity

Chemical Stability:

Product is stable under the prescribed storage conditions.

Incompatible materials:

Reacts with ammonium salts, evolving ammonia gas. Reacts with various sugars including fructose, galactose and maltose to produce carbon monoxide. Corrosive to aluminum, tin and zinc, liberating flammable hydrogen gas. Reacts violently with acids in an exothermic reaction. Reacts with oxidizing agents. May be corrosive to metals.

Conditions to avoid:

Elevated temperatures and sources of ignition.


Hazardous Decomposition:

Oxides of carbon and nitrogen, smoke and other toxic fumes.

11. Toxicological information

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute Effects

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Inhalation:

Inhalation of vapor and mists will result in corrosive effects, which may include lesions to the nasal septum, pulmonary oedema, pneumonitis and emphysema. At elevated temperatures, the probability and severity of these corrosive effects are increased.

Skin contact:

Contact with skin will result in chemical burns. Regardless of concentration, the severity of damage and extent of irreversibility increase with length of contact time. Prolonged contact with low concentrations of solutions can cause skin burns. Initial skin contact often does not cause pain. The latent period, following contact when no sensation of irritation occurs varies from several hours for 0.4% to 4% solutions to 3 minutes with higher concentrations of greater than or equal to 25%.

Ingestion:

Swallowing can result in nausea, vomiting, abdominal pain and burns to the gastrointestinal tract. If burns to the gastrointestinal tract develop, swelling of the larynx and subsequent suffocation, perforation of the gastrointestinal tract, coma and cardiovascular collapse may result.

Eye contact:

A severe eye irritant. Corrosive to eyes: contact can cause corneal burns. Contamination of eyes can result in permanent injury.

Acute toxicity

Inhalation:

This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >20 mg/L

Skin contact:

This material has been classified as non-hazardous.

Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

Ingestion:

This material has been classified as non-hazardous.


Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

Corrosion/Irritancy:

Eye: this material has been classified as a Category 1 Hazard (irreversible effects to eyes).

Skin: this material has been classified as a Category 1A Hazard (irreversible effects to skin).

Sensitization:

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Inhalation: this material has been classified as not a respiratory sensitizer.

Skin: this material has been classified as not a skin sensitizer.

Aspiration hazard: This material has been classified as non-hazardous.

Specific target organ toxicity (single exposure): This material has been classified as non-hazardous.

Chronic Toxicity

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

Reproductive toxicity (including via lactation): This material has been classified as non-hazardous.

Specific target organ toxicity (repeat exposure): This material has been classified as non-hazardous.

12. Ecological information

Avoid contaminating waterways.

Acute aquatic hazard:

Harmful to aquatic species due to pH effects.

Long-term aquatic hazard:

This material has been classified as non-hazardous. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): >100 mg/L, where the substance is not rapidly degradable and/or BCF < 500 and/or log Kow < 4.

Ecotoxicity:

Product is likely to be corrosive to terrestrial species.

Persistence and degradability:

Hydrolyzed in soil.

Bio accumulative potential:


Products does not bioaccumulate. Partitions into water.

Mobility:

Mobility depends upon water content in soil. High water content, indicates high mobility.

13. Disposal considerations

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate persona protection equipment is used, see “Section 8. Exposure Controls and Personal Protection” of this MSDS.

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If possible, material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

14. Transport information

ROAD AND RAIL TRANSPORT

Classified as Dangerous Goods by the criteria of the Globally Harmonized System (GHS).



UN No: 1823

Dangerous Goods Class: 8

Packing Group: II

Hazchem Code: 2W

Emergency Response Guide No: 37

Proper Shipping Name: SODIUM HYDROXIDE SOLID

Segregation Dangerous Goods:


Not to be loaded with explosives (Class 1), dangerous when wet substances (Class 4.3), oxidizing agents (Class 5.1), organic peroxides (Class 5.2), radioactive substances (Class 7) or food and food packaging in any quantity.

- Note 1: Concentrated strong alkalis are incompatible with concentrated strong acids.
- Note 2: Concentrated strong acids are incompatible with concentrated strong alkalis.
- Note 3: Acids are incompatible with Dangerous Goods of Class 6 which are cyanides. Exemptions may apply.

MARINE TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.



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UN No: 1823

Dangerous Goods Class: 8

Packing Group: II

Proper Shipping Name: SODIUM HYDROXIDE SOLID

AIR TRANSPORT

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.



UN No: 1823

Dangerous Goods Class: 8

Packing Group: II

Proper Shipping Name: SODIUM HYDROXIDE SOLID

15. Regulatory Information

The following laws, regulations, rules and standards have made corresponding provisions on the management of the chemical:

Workplace Safety Chemicals Regulations

Convention on the Safe Use of Chemicals in the Workplace

16. Other Information


Writing and revising information

Date originally compiled: June 19, 2015

Date of last revision: April 11, 2018

Re-compiled according to the latest national standard GB/T 209-2018, the version has been upgraded from 1.0 to 2.0, and the product information has been updated.

IMPORTANT: while the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Because many factors may affect processing or application/use, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. No warranties of any

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kind, either expressed or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding products described or designs, data or information set forth, or that the products, designs, data or information may be used without infringing the intellectual property rights of others. In no case shall the descriptions, information, data or designs provided be considered a part of our terms and conditions of sale. Further, you expressly understand and agree that the descriptions, designs, data, and information furnished by our company hereunder are given gratis and we assume no obligation or liability for the description, designs, data and information given or results obtained, all such being given and accepted at your risk.

END OF DATA SHEET