Material Safety Data Sheet

Sodium hydroxide

Section 1 - Chemical Product and Company Information

Chemical Product English Name: Sodium hydroxide

English Name 2: Caustic soda

Molecular Formula: NaOH

Molecular Weight: 40.00

Company Name: WUHAN XINRU CHEMICAL CO., LTD.

Factory ADDRESS: 2805,Building 1,Fuxinghuiyu Fuxing city(North Area),Jianghan District,Wuhan,Hubei Province,China

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Emergency Number: 86-27-5984 3601

Section 2 - Composition, Information on Ingredients

COMPONENT: SODIUM HYDROXIDE

CAS NUMBER: 1310-73-2

PERCENTAGE: 99

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white. **Danger!** Corrosive. Causes eye and skin burns. Hygroscopic. May cause severe respiratory tract irritation with possible burns. May cause severe digestive tract irritation with possible burns.

Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

Eye: Causes eye burns. May cause chemical conjunctivitis and corneal damage.

Skin: Causes skin burns. May cause deep, penetrating ulcers of the skin. May cause skin rash (in milder cases), and cold and clammy skin with cyanosis or pale color.

Ingestion: May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns. May cause perforation of the digestive tract. Causes severe pain, nausea, vomiting, diarrhea, and shock. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract. May cause systemic effects.

Inhalation: Irritation may lead to chemical pneumonitis and pulmonary edema. Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma. Causes chemical burns to the respiratory tract.

Chronic: Prolonged or repeated skin contact may cause dermatitis. Effects may be delayed.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion: If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Use water spray to keep fire-exposed containers cool. Use water with caution and in flooding amounts. Contact with moisture or water may generate sufficient heat to ignite nearby combustible materials. Contact with metals may evolve flammable hydrogen gas.

Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Do NOT get water inside containers.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation. Do not get water on spilled substances or inside containers.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Do not allow water to get into the container because of violent reaction. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Avoid ingestion and inhalation. Discard contaminated shoes. Use only with adequate ventilation.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from metals. Corrosives area. Keep away from acids. Store protected from moisture. Containers must be tightly closed to prevent the conversion of NaOH to sodium carbonate by the CO2 in air.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

China MAC(mg/m3)： 0.5

FSU MAC(mg/m3)： 0.5

TLVTN：OSHA 2mg/m3

TLVWN：ACGIH 2mg/m3

Monitoring methods: acid-base titration, flame photometry

Engineering control: With colsed operation, supply safety shower and eye bath facility.

Protection for respiratory system:when getting in touch with its fine dust, you must wear dust respirator. Wear SCBA when it is necessary.

Protection for eyes: It has been already made protection in the protection for respiratory system.

Protection for body: wear rubber clothes that bear strong and sour alkali.

Protection for hands: wear rubber gloves that bear strong and sour alkali.

Protection for others: It is forbidden to smoke, eat and drink in the work place. Wash the hands before eating. After finishing the work, take a shower and change clothes. Pay attention to personal cleanliness and hygiene.

Section 9 - Physical and Chemical Properties

PHYSICAL STATE: solid

COLOR: white

Appearance and Characteristics：white，Opaque Solid，deliquescent

pH: Not available

Melting point(℃)：318.4

Boiling point(℃)：1390

Relative Density（water=1）：2.12

Relative steam Density（air=1）：Not available

saturated vapor pressure(kPa)：0.13(739℃)

Heat of combustion(kJ/mol)：nonsense

Critical temperature：nonsense

Critical pressure：nonsense

The log BCF of the scale coefficient of octanol and water：Not available

Flash point(℃)： Not applicable.

Ignition temperature(℃)： nonsense

Upper explosive limit%(V/V)： nonsense

Lower explosive limit%(V/V)： nonsense

Dissolubility： easily soluble in water，alcohol，glycerine，not soluble in acetone。

Main application： use in soap Industry，petroleum refining，papermaking，Viscose rayon，Staining，Tanning，medicine，organic synthesis

Section 10 - Stability and Reactivity

Stability： Not available

Incompatibilities with Materials： strong acid，combustibles，carbon dioxide，peroxide，water

Conditions to Avoid: moist air

Hazardous Polymerization: Not available

Hazardous Decomposition Products: Not available

Section 11 - Toxicological Information

Acute toxicity： LD50： Not available

Subacute and chronic..toxicity： Not available

Acrimony： Draize test, rabbit, eye: 1% Severe; Draize test, rabbit, skin: 500 mg/24Hours Severe

Mutagenicity: Not available

Teratogenicity： Not available

Carcinogenicity: Not available

Section 12 - Ecological Information

Deleterious effect： Because it is alkalescent, it can make the water body polluted. So we should pay special attention on plant and aquatic organism.

Section 13 - Disposal Considerations

Disposal considerations methods: Before disposing, we should consult relative state and local's laws and rules. After neutralization and dilution, discharge into Wastewater Systems.

Section 14 - Transport Information

Dangerous Goods No.: 82001

UN No.: 1823

Package Category: O52

Package Method: Solid goods can be put into 0.5 mm thick steel drums hermetically. The weight per barrel is not more than 100 kilograms. Plastic bags or layer kraft paper bags are all open or in the open drums. Thread mouth glass bottles, lid Pressure mouth glass bottles, Plastic bottles or Metal bucket in Ordinary wooden cases.

Transport Note: When transported by Railway, the goods in Drums can be translated by Gondola. At the beginning of the transportation, make sure the package is completed, the transportation is proper. During transportation, make sure the Containers no leakage, not collapse, not fall, without damaging. It is forbidden to put the goods together with Combustible, Acids, Food Chemicals. When transporting, transport vehicles should be equipped with Spill contingency processing equipments.

Section 15 - OTHER INFORMATION

This MSDS contains information under the fifteen (15)
section headings written in accordance with the
International Standard ISO 11014 "Safety Data Sheet
for Chemical Products".

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