

AERCHEM INC.
320 North Walnut
Bloomington, IN 47404

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Emergency: 800.424.9300

SECTION 1: IDENTIFICATION

Effective Date: 5/2/91

Product Name: Sodium Hydroxide

Common Name: Caustic Soda, Sodium Hydrate, Lye

Chemical Formula: NaOH

CAS No.: 1310-73-2

SECTION 2: PHYSICAL DATA

Physical Data:

Appearance and Odor: White crystal, flake or solid. Odorless, deliquescent.

Boiling point: 1390°F

Vapor Pressure (mmHg): 42 mm @ 1000C°

Specific Gravity (Water=1): 2.13

Solubility in water: 111g / 100g H₂O

Melting Point: 318°C

Volatility: n/ap

Vapor Density: n/ap

SECTION 3: FIRE AND EXPLOSION DATA

Fire and Explosion Information:

Flash point: None

Flammable limit: LEL n/av

Extinguishing Media: Use extinguishing media appropriate to surrounding fire conditions. Keep water away from Sodium Hydroxide if possible.

Fire Fighting Procedures: Self contained breathing apparatus with a full facepiece operated in a pressure demand or other positive pressure mode. Wear adequate protection to prevent contact with material or its combustion products.

Unusual Fire and Explosion Hazards: Avoid soaking Sodium hydroxide with water due to violent reaction which will generate sufficient heat to ignite combustible materials. Reacts with most common metals to produce hydrogen (explosive and flammable gas). Emits toxic fumes under fire conditions.

SECTION 4: REACTIVITY DATA

Reactivity Data:

Stable X Unstable

Conditions to Avoid: Absorbs Carbon Dioxide and moisture from air.

Incompatibilities: Highly reactive with moisture; Acids, water, flammable / combustible materials, organic materials, peroxides, organahalogen compounds (may react to form spontaneously combustible materials), nitro and chloro organic compounds (may react explosively). Acrolaine, acryonitrile, acetaldehyde (violent polymerization). Reacts with most common metals to produce hydrogen.

Hazardous Decomposition or byproducts: some metallic oxides (Sodium Oxide)

Hazardous Polymerization: Will not occur.

SECTION 5: HEALTH HAZARD DATA**Threshold Limit Value (TLV): 2 mg / m³ ceiling****Permissible Exposure Limit: OSHA permissible exposure limit: 2 mg / m³ ceiling****Toxicity:****Oral LD50 (rabbit): 50 mg / 24H severe****NTP:****IARC Monographs:**

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SECTION 6: SPILLAGE AND DISPOSAL PROCEDURES

First Aid:

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

Skin contact: Remove contaminated clothes ASAP, protecting your own hands and body. Place victim under deluge shower. If on exposed skin, neutralize with dilute solution of boric or acetic acid. Wash contaminated area with running water non-abrasive soap. Cold water may be used.

Inhalation: Allow victim to rest in well ventilated area. Seek immediate medical attention.

Ingestion: Do not induce vomiting. Have conscious person drink several glasses of water or milk. Seek medical attention.

Spillage: **SMALL SPILL:** Use appropriate tools to put spilled solid in convenient waste disposal container. If necessary, neutralize residue with dilute solution of acetic acid. **LARGE SPILL:** Corrosive solid. Stop leak if w/o risk. Do not get water inside container. Do not touch spilled material. Neutralize as for small spill. Use water spray to reduce vapors. Get assistance on disposal.

Disposal: Recycle to process, if possible. Consult local or regional authorities.

SECTION 7: PRECAUTION TO BE TAKEN IN HANDLING AND STORING

Other Precautions: Keep container dry. Do not breathe dust. Never add water to this product. Wear respiratory equipment if ventilation insufficient. Avoid contact with skin and eyes. Keep away from incompatibles.

SECTION 8: SPECIAL PROTECTION INFORMATION

Ventilation: Process enclosures, local exhaust ventilation, or other engineering controls.

Eye Protection: Splash goggles

Protective Gloves: Impervious gloves

Respiratory Protection: Vapor & dust respirator

Other: Synthetic apron.

SECTION 9: TRANSPORT INFORMATION

DOT classification: Class 8, Corrosive solid, UN1823, packing group II

DOT pictograms: Corrosive/8 sticker