



# Safety Data Sheet (SDS)

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## Section 1: Identification

- **Product Name:** Liquid Lye (Sodium Hydroxide Solution, 35%)
- **Synonyms:** Caustic Soda Solution, NaOH Aqueous Solution
- **Recommended Uses:** Cleaning agent, pH control, chemical manufacturing, detergents, soap production
- **Restrictions on Use:** Not for household consumer use; industrial/professional use only
- **Manufacturer/Supplier:** Caribbean Aerosol and Packaging Solutions
- **Address:** 45 Taylor Street, Marabella, Trinidad and Tobago
- **Phone Number:** 1-868-265-7061
- **Email:** caps-clean-caribbean@gmail.com

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## Section 2: Hazard(s) Identification

### Classification (GHS):

- Corrosive to metals – Category 1
- Skin corrosion – Category 1B
- Serious eye damage – Category 1
- Acute toxicity, oral – Category 4

### Signal Word: Danger

### Hazard Statements:

- H290: May be corrosive to metals
- H302: Harmful if swallowed
- H314: Causes severe skin burns and eye damage

### Precautionary Statements:

- **Prevention:**
  - P234: Keep only in original container
  - P260: Do not breathe mist, vapors, or spray
  - P264: Wash hands and exposed skin thoroughly after handling

- P270: Do not eat, drink, or smoke when using this product
- P280: Wear protective gloves, protective clothing, eye protection, and face protection
- **Response:**
  - P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
  - P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower
  - P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing
  - P305+P351+P338: IF IN EYES: Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing
  - P310: Immediately call a POISON CENTER/doctor
- **Storage:**
  - P405: Store locked up
  - P406: Store in corrosion-resistant container with resistant inner liner
- **Disposal:**
  - P501: Dispose of contents/container in accordance with local, regional, national, and international regulations

**GHS Pictograms:**

- [Corrosion symbol: test tube spilling on hand and metal]
- [Exclamation mark symbol]

**Other Hazards:** Contact with metals may release flammable hydrogen gas.

**Section 3: Composition/Information on Ingredients**

Component	CAS Number	% by Weight
Sodium Hydroxide	1310-73-2	~35%
Water	7732-18-5	~65%

**Note:** Substance in aqueous solution; not a mixture with hazardous impurities.

**Section 4: First-Aid Measures**

- **Inhalation:** Move person to fresh air. Seek medical attention if symptoms (coughing, throat irritation, difficulty breathing) persist.

- **Skin Contact:** Immediately flush with plenty of water for at least 30 minutes. Remove contaminated clothing. Seek medical attention for burns or irritation.
- **Eye Contact:** Rinse cautiously with water for at least 15–30 minutes. Remove contact lenses if present and easy to do. Get immediate medical attention.
- **Ingestion:** Do NOT induce vomiting. Rinse mouth. If conscious, give small amounts of water or milk. Seek immediate medical attention.

**Symptoms:** Severe skin burns, eye damage, respiratory irritation, gastrointestinal burns if ingested.

**Note to Physicians:** Treat symptomatically. Probable mucosal damage may contraindicate gastric lavage.

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### Section 5: Fire-Fighting Measures

- **Suitable Extinguishing Media:** Use extinguishing measures appropriate to surrounding fire (water spray, foam, CO<sub>2</sub>, dry chemical).
  - **Unsuitable Media:** Do not apply water directly to product — violent reaction and heat may occur.
  - **Specific Hazards:** Non-flammable. Contact with metals produces hydrogen gas (explosion hazard). Thermal decomposition may release caustic vapors.
  - **Protective Equipment for Firefighters:** Wear self-contained breathing apparatus (SCBA) and full protective clothing.
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### Section 6: Accidental Release Measures

- **Personal Precautions:** Evacuate area. Use chemical-resistant PPE. Ensure adequate ventilation. Avoid inhalation or contact.
  - **Environmental Precautions:** Prevent entry into waterways, soil, or drains. Neutralize before disposal.
  - **Methods for Containment and Cleanup:**
    - Small spills: Dilute with plenty of water and neutralize with weak acid (e.g., acetic acid).
    - Large spills: Contain with non-combustible absorbent (e.g., sand). Collect in approved containers. Dispose according to regulations.
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### Section 7: Handling and Storage

- **Safe Handling:**
  - Avoid contact with skin, eyes, and clothing.
  - Do not breathe mist or vapors.

- Always add product slowly to water, never water to product.
  - Use with adequate ventilation.
  - **Storage:**
    - Store in tightly closed, corrosion-resistant containers.
    - Protect from freezing (keep above 16°C).
    - Store away from acids, metals, organic materials, and flammables.
    - Keep locked and labeled.
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## Section 8: Exposure Controls/Personal Protection

- **Exposure Limits:**
    - ACGIH TLV-C: 2 mg/m<sup>3</sup> (ceiling)
    - OSHA PEL: 2 mg/m<sup>3</sup> (ceiling)
  - **Engineering Controls:** Local exhaust ventilation, eye wash stations, safety showers.
  - **Personal Protective Equipment (PPE):**
    - **Respiratory Protection:** If exposure limits exceeded, use NIOSH-approved respirator for caustic mist/vapors.
    - **Hand Protection:** Butyl rubber, nitrile, or neoprene gloves.
    - **Eye/Face Protection:** Chemical goggles and face shield.
    - **Skin/Body Protection:** Chemical-resistant clothing, apron, boots.
    - **Hygiene:** Do not eat, drink, or smoke when using this product. Wash hands before breaks and after handling.
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## Section 9: Physical and Chemical Properties

- Appearance: Clear, colorless liquid
- Odor: Odorless
- pH: ~14 (strongly alkaline)
- Melting/Freezing Point: ~0–18°C
- Boiling Point: ~100–145°C (depends on concentration)
- Flash Point: Not applicable (non-flammable)
- Vapor Pressure: 14–24 mmHg at 20–25°C
- Relative Density: ~1.50 g/cm<sup>3</sup> (35% NaOH solution)
- Solubility: Completely miscible in water

- Flammability: Not flammable
  - Viscosity: Low to medium (aqueous solution)
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### Section 10: Stability and Reactivity

- **Stability:** Stable under normal conditions of use and storage.
  - **Reactivity:** Absorbs CO<sub>2</sub> from air. Strongly alkaline.
  - **Incompatible Materials:** Acids, metals (produces hydrogen gas), ammonium salts, halogenated hydrocarbons.
  - **Hazardous Decomposition Products:** None under normal use. Hydrogen gas when in contact with metals.
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### Section 11: Toxicological Information

- **Acute Toxicity (oral):** LD50 (rat): ~300–500 mg/kg (NaOH)
  - **Skin Corrosion/Irritation:** Causes severe burns.
  - **Serious Eye Damage/Irritation:** Causes permanent eye damage/blindness.
  - **Respiratory Irritation:** Causes damage to mucous membranes and respiratory tract.
  - **Chronic Effects:** No evidence of carcinogenicity, mutagenicity, or reproductive toxicity.
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### Section 12: Ecological Information

- **Ecotoxicity:** High pH harmful to aquatic life (fish, invertebrates).
  - **Persistence/Degradability:** Not persistent; neutralizes readily in environment.
  - **Bioaccumulation Potential:** None expected.
  - **Mobility in Soil:** High mobility in water; rapidly disperses.
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### Section 13: Disposal Considerations

- Dispose of product and packaging according to local, national, and international regulations.
  - Do not release to environment.
  - Neutralize with weak acid (e.g., acetic acid) before disposal if permitted.
  - Deliver waste to approved hazardous waste facility.
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## Section 14: Transport Information

- **UN Number:** UN 1824
  - **Proper Shipping Name:** Sodium Hydroxide Solution
  - **Transport Hazard Class:** 8 (Corrosive)
  - **Packing Group:** II
  - **Labels:** Corrosive
  - **DOT (U.S.):** Regulated
  - **IATA (Air):** Regulated – Class 8, Packing Group II
  - **IMDG (Sea):** Regulated – Class 8, Packing Group II, Marine Pollutant (pH hazard)
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## Section 15: Regulatory Information

- **U.S. Regulations:**
    - OSHA: Hazardous chemical under 29 CFR 1910.1200
    - CERCLA RQ: 1000 lbs (sodium hydroxide)
    - SARA 302/304: Not listed
    - SARA 313: Not subject to reporting
    - TSCA: Listed
  - **EU/International:**
    - REACH: Registered substance
    - GHS/CLP: Classified as corrosive, acute toxic
  - **Trinidad & Tobago:** Regulated under Occupational Safety and Health Act and Chemicals Management Regulations.
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## Section 16: Other Information

- **NFPA Ratings:**
  - Health: 3
  - Flammability: 0
  - Reactivity: 2
- **HMIS Ratings:**
  - Health: 3
  - Flammability: 0

- Physical Hazard: 2
- **Revision Date:** August 31, 2025
- **Prepared By:** Caribbean Aerosol and Packaging Solutions Ltd, Safety & Compliance Division