

## MILES® CAUSTIC SODA 50% LIQUID (SODIUM HYDROXIDE SOLUTION)

### Safety Data Sheet

#### SECTION 1: IDENTIFICATION

**Product Name:** Sodium hydroxide solution (50%)

**CAS No.:** 1310-73-2 | Formula: NaOH (50 wt% in water)

**Recommended Use:** pH control and neutralization, chemical processing, cleaning, water treatment

**Supplier:** Miles Lubricants LLC

**Emergency Telephone:** CHEMTREC 1-800-424-9300 (US)

#### SECTION 2: HAZARD(S) IDENTIFICATION

**GHS Classification:** Met. Corr. 1; Skin Corr. 1A; Eye Dam. 1

**Signal Word:** Danger

**Hazard Statements:** H290 – May be corrosive to metals. H314 – Causes severe skin burns and eye damage.

**Precautionary Statements:** P234, P260, P264, P280, P301+P330+P331, P303+P361+P353, P304+P340, P305+P351+P338, P310, P390, P406, P501

#### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Sodium hydroxide (CAS 1310-73-2): 49.0–51.5%; water: balance

#### SECTION 4: FIRST-AID MEASURES

**Eye Contact:** Flush immediately with water for at least 15 minutes, holding eyelids open; seek immediate medical attention. Do not attempt to neutralize eye burns.

**Skin Contact:** Remove contaminated clothing; flush skin with water for at least 15 minutes; seek immediate medical attention.

**Inhalation:** Move to fresh air; seek medical attention if breathing is difficult or symptoms persist.

**Ingestion:** Rinse mouth with water. Do not induce vomiting. Seek immediate medical attention.

#### SECTION 5: FIRE-FIGHTING MEASURES

**Extinguishing Media:** Use media suitable for the surrounding fire.

**Special Hazards:** Not flammable; contact with some metals (such as aluminum and zinc) can release flammable hydrogen gas; containers may rupture when heated.

**Firefighter PPE:** SCBA and full chemical-resistant protective gear.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

Wear protective equipment. Contain the spill and absorb with inert, non-combustible material; neutralize residues carefully; prevent entry to drains and waterways.

## SECTION 7: HANDLING AND STORAGE

Store in tightly closed, corrosion-resistant containers in a heated or temperature-controlled area (freezing point 7–12°C). Never store in aluminum containers; avoid magnesium, zinc, tin and chromium. Always add caustic to water, never water to caustic.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Limits:** OSHA PEL (TWA) 2 mg/m<sup>3</sup>; ACGIH TLV (ceiling) 2 mg/m<sup>3</sup>.

**Engineering Controls:** Local exhaust ventilation; eyewash and safety shower nearby.

**PPE:** Chemical splash goggles and face shield; chemical-resistant gloves and protective clothing; NIOSH-approved respirator if mists/fumes may exceed limits.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Clear, colorless liquid | **Odor:** Odorless

**Boiling Point:** 138–143°C (280–289°F) | **Freezing Point:** 7–12°C (45–54°F)

**Specific Gravity:** 1.49–1.53 @ 20°C | **Flash Point:** Not applicable

**Vapor Pressure:** 20–25 mm Hg @ 70°C | **pH:** 14 or higher

**Solubility in Water:** Complete

## SECTION 10: STABILITY AND REACTIVITY

Stable under normal conditions. Reacts violently with acids; reacts with aluminum, zinc and tin to release hydrogen gas. Avoid contact with incompatible metals and organic materials.

## SECTION 11: TOXICOLOGICAL INFORMATION

Corrosive: causes severe burns to skin and eyes; ingestion causes severe damage to the digestive tract; mists and vapors are corrosive to the respiratory tract.

## SECTION 12: ECOLOGICAL INFORMATION

Harmful to aquatic life because of its high pH (fish 96-h LC50 approx. 125 mg/L). Not bioaccumulative. Prevent release to drains and waterways.

**SECTION 13: DISPOSAL CONSIDERATIONS**

Neutralize and dispose per local/state/federal regulations; may be regulated as corrosive hazardous waste (D002).

**SECTION 14: TRANSPORT INFORMATION**

DOT: UN1824, Sodium hydroxide solution, Class 8, PG II.

**SECTION 15: REGULATORY INFORMATION**

Listed on TSCA. CERCLA reportable quantity: 1,000 lb. Confirm current regulatory status.

**SECTION 16: OTHER INFORMATION**

This SDS is a general reference compilation and does not replace the manufacturer's or Miles Lubricants LLC's officially issued, lot-specific SDS.