

**HEAVY DUTY CRYSTAL DRAIN OPENER****IDENTITY (As Used on Label and List)**

HD-CRY ROEBIC CRYSTAL DRAIN OPENER

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Person Preparing Document – Steven Smith

**Section 1****Manufacturer's name**

Roebic Laboratories, Inc.

**Address (Number, Street, City, State, and ZIP Code)**25 Connair Road, PO Box 927  
Orange, CT 06477**Emergency Telephone Number**

CHEMTREC 1-800-424-9300

**Telephone Number for Information**

1-203-795-1283

**Chemical Name & Synonyms** – Sodium Hydroxide, CAS No. 1310-73-2**Trade Name & Synonyms** – Caustic Soda 100%**Chemical Family** – Alkali**Formula** – NaOH**DOT Shipping Name** – Caustic Soda**DOT Hazard Class** – Corrosive Material**Reportable Quantity** – 1000 lbs. / 454 kg.**ID Number** – UN1823 Sodium Hydroxide Solid**Subsidiary Risk** – N/A**Section 2 – HAZARDOUS INGREDIENTS / IDENTITY INFORMATION****Hazardous Components (Specific Chemical Identity; Common Name(s)):**

Sodium Hydroxide; Lye

100%

**Section 3 – PHYSICAL DATA / CHEMICAL CHARACTERISTICS****Boiling Point @ 760mm Hg:** N/A**Vapor Pressure (mm Hg.)** – 1mmHg**Vapor Density (AIR = 1)** – N/A**Solubility in Water** - Appreciable 10%, 374g/100g water @100° C**Ph of Solutions** – All solutions are strongly basic.**Volume % Volatile** – 0%**Specific Gravity (H<sub>2</sub>O = 1)** - 60°/60°F = 1.36**Freezing / Melting Point** – 5-11°C, 1-51° F**Evaporation Rate (Butyl Acetate = 1)** – N/A**Appearance & Odor** – White Granular; no odor.**Bulk Density** – 11.3 lbs./gal @60° F**Heat of Solution** – Exothermic**Section 4 – FIRE & EXPLOSION HAZARD DATA****Flash Point Method Used** – None**Extinguishing Media** – N/A**Special Fire Fighting Procedures** – None

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**Section 4 – FIRE & EXPLOSION HAZARD DATA (continued)**

**Unusual Fire & Explosion Hazards** – Contacts with some metals particularly magnesium, aluminum, and zinc (galvanized) can generate hydrogen rapidly, which is explosive.

**Flammable Limits** – N/A    **LEL**    **UEL**

**Section 5 – HEALTH HAZARD DATA****Toxicity Data:**

**LC<sub>50</sub> Inhalation** – See Section 6

**LD<sub>50</sub> Dermal** – See Section 6

**Skin/Eye Irritation** – See Section 6

**LD<sub>50</sub> Ingestion** – See Section 6

**Fish, LC<sub>50</sub> (Lethal Concentration)** – Unknown

**Classification Poison, Irritant, Etc.:**

**Inhalation** – Irritant

**Skin** – See Section 6

**Skin/Eye** – Corrosive

**Ingestion** – Corrosive

**Aquatic** – Unknown

**Section 6 – EFFECTS OF OVEREXPOSURE**

**This section covers the effects of overexposure for inhalation, eye/skin contact, ingestion, and other types of overexposure information in the order of the most hazardous and the most likely route of overexposure.**

**Permissible exposure limits:** OSHA – 2mg/m<sup>3</sup> – 8 hour TWA (time weighted average) 29CFR 1910.1000

ACGIH – 2mg/m<sup>3</sup> – ceiling

**ACUTE: Inhalation** – Inhalation of mists can cause damage to the upper respiratory tract and to the lung tissue depending on extent of exposure. Effects can range from mild irritation of mucous membranes, severe pneumonitis, and destruction of lung tissues.

**Eye/Skin:** Causes severe burns to eyes, small quantities can result in permanent damage and/or loss of vision. Corrosive action causes burns to skin and frequently deep ulceration with subsequent scarring. Prolonged contact destroys tissue. Mist from solutions can cause irritant dermatitis.

**Ingestion:** Ingestion can cause very serious damage to mouth, esophagus, stomach, and other tissues with which contact is made and may be fatal.

**CHRONIC:** The effects of long term, low-level exposures to this product have not been determined. Safe handling of this material on a long term basis should emphasize minimizing repeated acute exposures.

**Medical conditions aggravated by exposure:** None known.

**Chemical listed as carcinogen or potential carcinogen:** NTP: No    IARC: No    OSHA: No

**Emergency First Aid Procedures:**

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. If breathing is difficult, give oxygen. Call a physician.

**Eye or Skin Contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids open during the flushing with water. Call a physician. Immediately flush skin with plenty of water while removing contaminated clothing and shoes. Call a physician. If skin feels slippery, caustic may still be present in sufficient quantities to cause rash or burn. Continue washing until slick feeling is gone. Thoroughly clean contaminated clothing or shoes before reuse or discard.

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**Section 6 – EFFECTS OF OVEREXPOSURE (continued)**

**Ingestion:** If conscious, drink large quantities of water or acidic beverages (tomato or orange juice, carbonated soft drinks). DO NOT induce vomiting. If vomiting occurs, administer additional water. Take immediately to the hospital or physician. If unconscious, or in convulsions, take immediately to the hospital. DO NOT attempt to induce vomiting or give anything by mouth to an unconscious person.

**Note to Physician:** (Including Antidotes) Treat symptomatically.

**Section 7 – REACTIVITY DATA**

**Stability** – Stable

**Conditions to Avoid** – Materials listed below.

**Incompatibility (Materials to Avoid)** – Organic materials and concentrated acids may cause violent reactions; caustic soda reacts with magnesium, aluminum, zinc (galvanized), tin, chromium, brass, and bronze generating hydrogen, which is explosive. Also, caustic soda may react with various food sugars to generate carbon monoxide (see Special Precautions Section 10).

**Hazardous Decomposition Products** – Reactions with various food sugars may form carbon monoxide.

**Hazardous Polymerization** – Will not occur.

**Conditions to Avoid** – N/A

**Section 8 – SPILL OR LEAK PROCEDURES**

**Steps to be taken in case material is released or spilled:**

Dike area to contain spill. Only trained personnel equipped with NIOSH/MSHA approved, full face piece combination dust/mist and acid gas respirators should be permitted in the area. Reclaim spilled material if possible. Or, dilute material with large quantities of water, then neutralize with dilute acid. Properly neutralized liquid residues (pH 6-9) may be disposed of in wastewater treatment facilities which allow the discharge of neutral salt solutions. Neutralized material can be recovered by vacuum truck for disposal (see below). After all visible traces have been removed, flush area with large amounts of water.

**Waste Disposal Method:**

Recommended disposal of neutralized material in an approved hazardous waste management facility. Care must be taken when using or disposing of chemical materials and/or their containers to prevent environmental contamination. It is your duty to dispose of the chemical materials and/or their containers in accordance with the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, as well as any other relevant federal, state, or local laws/regulations regarding disposal.

**Section 9 – SPECIAL PROTECTION INFORMATION**

**Respiratory Protection (Specify Type):**

Use NIOSH/MSHA approved dust/mist filter respirator for routine work purposes when exposure to mists exceed the permissible exposure limits. The respirator use limitations specified by NIOSH/MSHA or the manufacturer must be observed. Respiratory protection programs must be in accordance with 29CFR 1910.134.

**Ventilation Type:** Local Exhaust-Sufficient to minimize employee exposure to mists below permissible exposure limits.

**Eye Protection:** Close fitting chemical safety goggles with face shield.

**Protective Gloves:** Nitrile, neoprene, or PVC

**Other Protective Clothing or Equipment:**

Rubber boots with safety toes, rubber aprons, PVC clothing, plastic hardhat should be used when necessary to prevent skin contact. Personal protective clothing and use of equipment must be in accordance with 26CFR 1910.133 and 29CFR 1910.132.

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**Section 10 – SPECIAL PRECAUTIONS**

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**Precautions to be taken during handling and storing:**

When handling, wear safety goggles and face shield, rubber gloves, rubber boots, rubber apron, cotton or polyester long sleeved shirt and plastic hardhat.

Wear NIOSH/MSHA approved respirator for protection where mists may be generated.

Never touch eyes or face with hands or gloves that may be contaminated with caustic soda.

Never enter caustic soda storage tank or container (tank truck or tank car), even if it appears to be empty.

Avoid contact with organic materials and concentrated acids – may cause violent reactions; caustic soda reacts with magnesium, aluminum, zinc (galvanized), tin, chromium, brass and bronze, generating hydrogen, which is explosive. Also, caustic soda may react with various sugars to generate carbon monoxide.

**Other precautions:**

- \* Do not get in eyes, on skin, or on clothing (can cause severe injury or blindness).
- \* Do not breathe mist.
- \* Do not swallow.
- \* Wash thoroughly after handling.
- \* Do not eat, drink, or smoke in work area.

Comments: Hazardous carbon monoxide gas can form upon contact with food and beverage products in enclosed vessels and can cause death. Follow appropriate tank entry procedures (see ANSI Z177.1-1977).