

MATERIAL SAFETY DATA SHEET

WATER GUARD, INC

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED): **CAUSTIC SODA (50% LIQUID)**
CHEMICAL NAME/CLASS: Sodium Hydroxide Solution
SYNONYMS: Sodium Hydroxide

DISTRIBUTOR'S NAME: **WATER GUARD, INC.**
ADDRESS: 1903 Herring Avenue
P.O. Box 2226
Wilson, NC 27894

BUSINESS TELEPHONE: 800-872-7665

EMERGENCY TELEPHONE: **PERS:** 800-633-8253
Wilson, NC 252-237-5205

DATE OF PREPARATION: September 2003

This MSDS also covers CAUSTIC SODA (25% LIQUID), (20% LIQUID) and (18% LIQUID). The Sodium Hydroxide concentration is 25%, 20%, or 18% weight/weight with the remainder water.

2. COMPOSITION and INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% weight/weight</u>
Sodium Chloride	7647-14-5	<2
Sodium Hydroxide	1310-73-2	>50
Water and other low hazard Constituents each less than 1% concentration		Remainder

3. HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=3 FIRE=0 REACTIVITY=2

HMIS RATINGS (SCALE 0-4): HEALTH=3 FLAMMABILITY=0 REACTIVITY=2

EMERGENCY OVERVIEW:

COLOR: White

PHYSICAL FORM: Solid

ODOR: odorless

MAJOR HEALTH HAZARDS: May cause burns to the respiratory tract, skin, eyes and gastrointestinal tract. May cause permanent eye damage.

POTENTIAL HEALTH EFFECTS:

INHALATION:

Short Term Exposure: irritation (possibly severe), burns, pulmonary edema

Long Term Exposure: to our knowledge, no effects are known

SKIN CONTACT:

Short Term Exposure: irritation (possibly severe), burns

Long Term Exposure: dermatitis

EYE CONTACT:

Short Term Exposure: irritation (possibly severe), burns, eye damage, blindness

Long Term Exposure: visual disturbances

INGESTION:

Short Term Exposure: irritation (possibly severe), burns, nausea, vomiting

Long Term Exposure: to our knowledge, no effects are known

CARCINOGEN STATUS:

OSHA: No

NTP: No

IARC: No

4. FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. If respiration or pulse has stopped, have a trained person administer Basic Life Support (Cardiopulmonary Resuscitation/Automatic External Defibrillator) and **CALL FOR EMERGENCY SERVICES IMMEDIATELY.**

SKIN CONTACT: Immediately flush contaminated areas with water. Remove contaminated clothing, jewelry, and shoes immediately. Wash contaminated areas with soap and water. Thoroughly clean and dry contaminated clothing and shoes before reuse. Discard footwear that cannot be decontaminated. **GET MEDICAL ATTENTION IMMEDIATELY.**

EYE CONTACT: Immediately flush eyes with a directed stream of water for at least 15 minutes,

forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissues. Washing eyes within several seconds is essential to achieve maximum effectiveness. GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION: Never give anything by mouth to an unconscious or convulsive person. If swallowed, do not induce vomiting. Give large amounts of water. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops. GET MEDICAL ATTENTION IMMEDIATELY.

NOTE TO PHYSICIAN: The absence of visible signs or symptoms of burns does NOT reliably exclude the presence of actual tissue damage.

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Negligible fire hazard.

EXTINGUISHING MEDIA: Do not use water. Use extinguishing agents appropriate for surrounding fire.

FIRE FIGHTING: Move container from fire area if it can be done without risk.

SENSITIVITY TO MECHANICAL IMPACT: Not sensitive

SENSITIVITY TO STATIC DISCHARGE: Not sensitive

FLASH POINT: Not flammable

6. ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE:

Shovel dry material into suitable container. Keep out of water supplies and sewers. This material is alkaline and may raise the pH of surface waters with low buffering capacity. Releases should be reported, if required, to appropriate agencies. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at 800-424-8802 or 202-426-2675.

7. HANDLING AND STORAGE

STORAGE: Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas may be generated. Keep separated from incompatible substances.

HANDLING: Avoid breathing dust. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. When mixing, slowly add to water to minimize heat generation and spattering.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

SODIUM HYDROXIDE:

2 mg/m³ OSHA TWA

2 mg/m³ OSHA ceiling (vacated by 58 FR 35338, June 30, 1993)

2 mg/m³ ACGIH ceiling

2 mg/m³ MEXICO peak

VENTILATION: Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Wear chemical resistant safety goggles if eye contact is likely. When wet mixing, wear splash resistant safety goggles with a face shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Wear protective clothing to minimize skin contact. When potential for contact with wet material exists, wear Tychem® SL or a similar chemical protective suit. When potential for contact with dry material exists, wear disposable coveralls such as Tyvek®.

GLOVES: Wear suitable gloves. Discard contaminated leather goods. When wet mixing, wear chemical resistant gloves such as butyl rubber, natural rubber, neoprene or nitrile.

PROTECTIVE MATERIAL TYPES: butyl rubber, canvas, leather, natural rubber, neoprene, nitrile, Tychem®, Tyvek®

RESPIRATOR: A NIOSH approved respirator with N95 (dust, fume, mist) filters may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. A half face piece air-purifying respirator may be used in concentrations up to 10X the acceptable exposure level and a full face piece air-purifying respirator may be used in concentrations up to 50X the acceptable exposure level. Supplied air should be used when the level is expected to be above 50X the acceptable level, or when there is a potential for uncontrolled release. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

COLOR: white

ODOR: odorless

MOLECULAR WEIGHT: 40.00

MOLECULAR FORMULA: NaOH

BOILING POINT: Not applicable

MELTING POINT: 604° F (318°C)

VAPOR PRESSURE: Not applicable

VAPOR DENSITY: Not applicable

SPECIFIC GRAVITY (water=1): 1.525 @ 20°C (18% -1.202; 20% -1.22; 25% -1.28)

WATER SOLUBILITY: 100%

pH: Not applicable

VOLATILITY: 0%

ODOR THRESHOLD: Not available

EVAPORATION RATE: Not applicable

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available

10. STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: Avoid contact with water. Direct contact with water may cause an exothermic reaction. Carbon monoxide gas may form upon contact with reducing sugars food and beverage products in enclosed spaces.

INCOMPATIBILITIES: acids, halogenated compounds, prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys

HAZARDOUS DECOMPOSITION: Thermal decomposition products: None known.

POLYMERIZATION: Will not polymerize.

11. TOXICOLOGICAL INFORMATION

CAUSTIC SODA ANHYDROUS (ALL GRADES):

TOXICITY DATA: Sodium Hydroxide: 1350 mg/kg Dermal-Rabbit LD50. As a solid, this material interacts with moist tissue to cause damage. When in solution, this material will affect all tissues with which it comes in contact. The severity of the tissue damage is a function of its concentration, the length of tissue contact time, and local tissue conditions. After exposure there may be a time delay before irritation and other effects occur. This material is a strong irritant and is corrosive to the skin, eyes and mucous membranes. This material may cause severe burns and permanent damage to any tissue with which comes into contact. Inhalation will cause severe irritation, possible burns with pulmonary edema, which may lead to pneumonitis. Skin contact

with this material may cause severe irritation and corrosion of tissue. Eye contact can cause severe irritation, corrosion with possible corneal damage and blindness. In general, chronic effects are due to long-term irritation. This material may cause dermatitis on the skin, or recurrent corneal ulceration and visual disturbances of vision. In rare cases reports have noted long-term inhalation causes bronchial inflammatory reaction or obstructive airway dysfunction.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

FISH TOXICITY: This material has exhibited moderate toxicity to aquatic organisms.

FATE AND TRANSPORT:

BIODEGRADATION: This material is inorganic and not subject to biodegradation.

PERSISTENCE: This material will exist in the disassociated state.

BIOCONCENTRATION: This material is believed not to bioaccumulate.

OTHER ECOLOGICAL INFORMATION: This material has exhibited slight toxicity to terrestrial organisms.

13. DISPOSAL CONSIDERATIONS

Reuse or reprocess if possible. Dispose in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101:

PROPER SHIPPING NAME: Sodium hydroxide, solution

ID NUMBER: UN1824

HAZARD CLASS OR DIVISION: 8 (corrosive material)

PACKING GROUP: II

LABELING REQUIREMENTS: Corrosive

DOT HAZARDOUS SUBSTANCE(S): Sodium hydroxide 1000 lb(s) (454 kg(s))

15. REGULATORY INFORMATION

U.S. REGULATIONS:

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES(40 CFR 302.4):

SODIUM HYDROXIDE: 1000 LBS RQ

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30): Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):

ACUTE: Yes

CHRONIC: No

FIRE: No

REACTIVE: Yes

SUDDEN RELEASE: No

SARA TITLE III SECTION 313 (40 CFR 372.65): Not regulated.

OSHA PROCESS SAFETY (29CFR1910.119): Not regulated.

16. OTHER INFORMATION

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