



EQUA-CHLOR

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

ISSUE DATE: 06-22-05

PRODUCT NAME: CAUSTIC SODA LIQUID (50% SOLUTION)

Manufacturer's Name and Address: Equa-Chlor, LLC
 3541 Industrial Way, P.O. Box 865,
 Longview, WA 98632
 (360) 636-2123

CHEMTREC (US): 1-800-424-9300

24 HOUR EMERGENCY TELEPHONE: 360-751-2136

TO REQUEST AN MSDS: 1-800-225-6422

CUSTOMER SERVICE: 1-800-225-6422

PRODUCT USE: Metal finishing, industrial cleaners, chemical processing, petroleum industry

CHEMICAL NAME: Sodium hydroxide

CHEMICAL FORMULA: NaOH

SYNONYMS/COMMON NAMES: Sodium hydroxide solution, caustic soda solution

2. COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS No.	% by Wt	Exposure Limits				Unit
			OSHA		ACGIH		
			TWA	STEL	TWA	STEL	
Sodium Hydroxide	1310-73-2	50	NE	2.0 (Ceiling)	NE	2.0 (Ceiling)	mg/M3
Water	7732-18-5	50	NE	NE	NE	NE	--

NE - Not Established

LISTED ON

TSCA Inventory

EINECS

Canadian Domestic Substance List

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

MAY CAUSE BURNS TO THE EYES, SKIN, RESPIRATORY, AND GASTROINTESTINAL TRACT. MAY CAUSE PERMANENT EYE DAMAGE. CAN REACT VIOLENTLY WITH WATER, ACIDS AND OTHER SUBSTANCES.

POTENTIAL HEALTH EFFECTS

PRIMARY ROUTES OF EXPOSURE: Eye and skin contact, inhalation.

EYE CONTACT: Corrosive. May cause severe chemical burns and tissue destruction. May result in corneal scarring and clouding, and possible blindness. The severity of the effects depend on concentration and how soon after exposure the eyes are washed.

SKIN CONTACT: Corrosive. May cause severe burns and tissue damage. Prolonged or repeated contact, even to dilute concentrations, can cause high degree of tissue destruction. Note that irritation may follow an initial latency (delay between the time of contact and sense of irritation).

INHALATION: Severely irritating to corrosive. Exposure to vapor, mist or liquid can produce burns of the respiratory tract. Symptoms may include throat burns, nausea, headache, pain, constriction of the windpipe (bronchospasms), severe pulmonary edema and death, depending on the concentration and duration of the exposure. Aspiration (breathing) of liquid or mist into lungs can cause chemical pneumonia, bleeding, lung damage and even death.

INGESTION: Corrosive. Severe burns and complete tissue perforation of mucous membranes of the mouth, throat, and stomach. Symptoms may include vomiting, diarrhea, internal bleeding and even death.

CHRONIC EFFECTS/CARCINOGENICITY/SPECIAL TOXIC EFFECTS: No components present in excess of 0.1% by weight are listed as carcinogens by NTP, OSHA, or IARC.

TARGET ORGANS: Eyes, skin, respiratory tract, gastrointestinal tract.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing medical conditions that may be aggravated by exposure include disorders of the skin and respiratory tract.

4. FIRST AID MEASURES

NOTE: SPEED IS ESSENTIAL. OBTAIN IMMEDIATE MEDICAL ATTENTION.

INHALATION: Remove patient from exposure, and keep warm and at a rest. Administer oxygen if necessary.

SKIN CONTACT: Drench with large quantities of water. Remove contaminated clothing. Continue to wash the affected area for at least 10 minutes.

EYE CONTACT: Immediately irrigate with eyewash solution or clean water, holding the eyelids apart for at least 15 minutes continue irrigation until medical attention can be obtained.

INGESTION: Do not induce vomiting. Provided the patient is conscious, wash out mouth with water and give 200-300 ml (half a pint) of water to drink.

5. FIRE FIGHTING MEASURES

FLASH POINT: Not Applicable

METHOD: Not Applicable

AUTO IGNITION TEMPERATURE: Not Applicable

FLAMMABLE LIMITS IN AIR, BY % VOLUME Upper: Not Applicable
Lower: Not Applicable

EXTINGUISHING MEDIA: Non-flammable / Non – combustible.

FIREFIGHTING PROCEDURES: Wear NIOSH/MSHA approved positive pressure self contained breathing apparatus and full protective clothing.

FIRE AND EXPLOSION HAZARD: None Known.

SENSITIVITY TO MECHANICAL IMPACT: Not sensitive.

SENSITIVITY TO STATIC DISCHARGE: Not sensitive.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Follow protective measures provided under Personal Protection in Section 8.
Evacuate unnecessary personnel and eliminate all sources of ignition

ENVIROMENTAL PRECAUTIONS:

Do not allow entry into sewers and waterways.

METHODS FOR CLEANING UP:

For small spills, soak up with absorbent material and place in properly labeled containers for disposal.

For large spills, dike and pump into properly labeled containers for reclamation or disposal.

7. HANDLING AND STORAGE

HANDLING:

Use with adequate ventilation. Avoid breathing vapors. Wear personal protective equipment as described in Exposure controls/Personal Protection (Section 8) of the MSDS.

SPECIAL MIXING AND HANDLING INSTRUCTIONS:

Do not allow contact with materials as noted in section 10.

STORAGE:

Keep container tightly closed and properly labeled. Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas can be generated.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

Handle product in a well ventilated area.

If product is handled in an open system, the use of process enclosures, local exhaust ventilation, and/or other engineering controls should be considered to control airborne levels to below recommended exposure limits, or below acceptable levels where there are no limits.

PERSONAL PROTECTION

RESPIRATORY:

A NIOSH approved respirator with a dust, fume and mist filter 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 respiratory protection program that meets 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant use of a respirator.

EYE/FACE:

Wear chemical safety goggles plus full face shield to protect against contact when appropriate (ANSI Z87.1).

SKIN:

Wear protective clothing to minimize skin contact. Wear chemical resistant gloves such as rubber, neoprene or vinyl.

OTHER:

Emergency shower and eyewash facility should be in close proximity (ANSI Z358.1).

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	50% Liquid
Boiling Pt @ 760 mm Hg,	142 ° C
Freezing Pt ° C:	12 ° C
Vapor Pressure @ 60 ° C:	13 mm Hg
Spec. Gravity @ 15.6 ° C:	1.53
Density @15.6° C	12.7 lb/gal
Solubility in Water	100 % by Weight
Vapor Density:	Not Applicable
Odor Threshold (ppm):	Not Determined
Evaporation Rate:	Not Determined
Coefficient Water/Oil Distribution:	Not Applicable
pH:	14
Appearance and Odor:	Clear Liquid with no Distinct Odor

10. STABILITY AND REACTIVITY

CHEMICAL STABILTY:

Stable Unstable

REACTS WITH:

<input checked="" type="checkbox"/> Air	<input type="checkbox"/> Oxidizers	<input checked="" type="checkbox"/> Metals
<input type="checkbox"/> Water	<input checked="" type="checkbox"/> Acids	<input checked="" type="checkbox"/> Other
<input type="checkbox"/> Heat	<input type="checkbox"/> Alkalis	<input type="checkbox"/> None

HAZARDOUS POLYMERIZATION:

Occurs Will not occur

COMMENTS:

Product is corrosive to tin, aluminum, zinc, and alloys containing these metals and will react with these metals in powder form. Avoid contact with leather, wool, acids, organic halogen compounds, or organic nitro compounds. Hazardous carbon monoxide gas can form upon contact with reducing sugars, food and beverage products in enclosed spaces can cause death. Follow appropriate tank entry procedures.

Prolonged contact with aluminum may produce flammable hydrogen gas.

HAZARDS DECOMPOSITION PRODUCTS:

None.

11. TOXICOLOGICAL INFORMATION

LDLo (oral, rabbit) : 500 mg/kg
LD50 (dermal, rabbit): >1350 mg/kg
Skin irritation (rabbit): Severely irritating
Eye irritation (rabbit): Severely irritating.

This substance is alkaline and corrosive. It is toxic by the oral route. It may cause burns to mucous membranes, mouth, and digestive tract. It may cause burns that are not immediately noticed or painful. This substance is irritating and corrosive to the eyes and skin.

12. ECOLOGICAL INFORMATION

TOXICITY: This material is believed to be slightly toxic to aquatic life.

PERSISTENCE: This material is believed to be unlikely to persist in the environment.

BIOACCUMULATION: This material is believed to be unlikely to bioaccumulate.

For further information call or write the address shown on page one of the MSDS.

13. DISPOSAL CONSIDERATIONS

Dispose of all waste and contaminated equipment in accordance with all applicable federal, state, and local health and environmental regulations.

14. TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME:	Sodium Hydroxide, solution
DOT HAZARD CLASS:	8
DOT IDENTIFICATION NO:	UN1824
DOT PACKING GROUP:	II
DOT HAZARDOUS SUBSTANCE:	RQ 1,000 LBS. (Sodium Hydroxide)
DOT MARINE POLLUTANT (S):	Not Applicable
LABELLING REQUIREMENTS:	CORROSIVE
PLACARDS:	CORROSIVE

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

OSHA Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of hazard communication program including labeling, material safety data Sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this Material Safety Data sheet available to your employees.

TSCA:

Components of this product that are required to be on the TSCA inventory are listed on the inventory.

SARA/TITLE III HAZARD CATEGORIES:

If the word "YES" appears next to any category, this product may be reportable by you under the requirements of 40 CFR 370. Please consult those regulations for details.

Immediate (Acute) Health: YES

Reactive Hazard: YES

Delayed (Chronic) Health: NO

Sudden Release of Pressure: NO

Fire Hazard: NO

HMIS HAZARD RATINGS:

HEALTH HAZARD: 3 FIRE HAZARD: 0 REACTIVITY: 2

STATE REGULATIONS:

Consult local laws for applicability.

INTERNATIONAL REGULATIONS:

*Consult the regulations of the importing country.

CANADA:

WHMIS Hazard Class: D1B, D2B, E

16. OTHER INFORMATION

For additional non-emergency health, safety or environmental information telephone (360) 636 – 2123 or write to:

Equa-Chlor LLC
3541 Industrial Way
P. O. Box 865
Longview, WA 98632

MSDS LEGEND:

ACGIH = American Conference of Governmental Industrial Hygienists
CAS = Chemical Abstracts Service Registry Number
CEILING = Ceiling Limit (15 minutes)
CEL = Corporate Exposure Limit
OSHA = Occupational Safety and Health Administration
PEL = Permissible Exposure Limit (OSHA)
STEL = Short Term Exposure Limit (15 minutes)
TDG = Transportation of Dangerous Goods (Canada)
TVL = Threshold Limit Value (ACGIH)
TWA = Time Weighted Average (8 Hours)
WHMIS = Worker Hazardous Materials Information System (Canada)

IMPORTANT:

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