

Safety Data Sheet

Revision date: 5-04-2015

1. Identification

Product identifier	BleachTech Caustic Soda 15% to 51%
Other means of identification	
Synonyms	Caustic soda liquid, all grades Sodium hydroxide solution; liquid caustic; Lye solution; caustic lye; soda lye.
Recommended use	Metal finishing, cleaner, process chemical, petroleum industry
Manufacturer/Importer/Supplier/Distributor Information	
Company name	BleachTech LLC
Address	320 Ryan Rd. Seville, Ohio 44273
Telephone	1-330-769-5000
Company name	BleachTech LLC
Address	2020 Bessemer Rd Petersburg, VA 23805
Telephone	1-804-863-2222
Website	bleachtech.com
Emergency phone number	1-330-769-5000 (24 hours)

2. Hazard(s) identification

Label elements



Signal word	DANGER
Hazard statement	May be corrosive to metal. Harmful if swallowed. Causes severe skin burns and eye damage.
Precautionary statement	
Prevention	Keep only in original container. Wear protective gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing. Do not breathe the mist or vapor. Use only with adequate ventilation. Wash thoroughly
Response	If swallowed: Rinse mouth. Do NOT induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. If on skin (or hair): Take off immediately all contaminated clothes. Rinse skin with water/shower. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse.
Storage	Absorb spillage to prevent material damage. Store locked up. Keep container tightly closed.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental Information

NFPA classification (scale 0-4):

Health	3
Fire	0
Reactivity	1

Emergency overview

Major health hazards: Corrosive. Causes burns to the respiratory tract, skin, eyes and gastrointestinal tract.
Causes 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
Ecological hazards	This material has exhibited moderate toxicity to aquatic organism.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Sodium Hydroxide (NaOH)	1310-73-2	15 - 51
Water (H ₂ O)	7732-18-5	Balance

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 (Cardio-Pulmonary Resuscitation/Automatic External Defibrillator) and <u>CALL FOR EMERGENCY SERVICES IMMEDIATELY.</u>
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 contaminated leather goods. <u>GET MEDICAL ATTENTION IMMEDIATELY</u>
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. <u>GET MEDICAL ATTENTION IMMEDIATELY.</u>
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. <u>GET MEDICAL ATTENTION IMMEDIATELY.</u>
Note to physician	The absence of visible signs of symptoms of burns does NOT reliably exclude the presence of actual damage. Probable mucosal damage may contraindicate the use of gastric lavage.
General information	In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Use extinguishing agents appropriate for surrounding fire.
Specific hazards arising from the chemical	Negligible fire hazard.
Fire-fighting equipment/instructions	Move containers from fire area if it can be done without risk. Cool containers with water, Wear NIOSH approved positive- pressure self-contained breathing apparatus. Avoid contact with skin.
Sensitivity to mechanical impact	Not sensitive
Sensitivity to static discharge	Not sensitive
Flash point	Not flammable

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Stop leak if possible without personal risk, keep unnecessary people away, isolate hazard area and deny entry.
Methods and materials for containment and cleaning up	Wear appropriate personal protective equipment recommended in Section 8 of the SDS. Completely contain spilled material with dikes, sandbags, etc. Keep out of water supplies and sewers. Reprocess or reuse if possible. Liquid material may be removed with a vacuum truck. Remaining material may be diluted with water and neutralized with dilute acid. Flush spill area with water, if appropriate. 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 (USA) or (202) 426-2675 (USA).
Environmental precautions	This material is alkaline and may raise the pH of the surface waters with low buffering.
Advance planning	Plan in advance for an occupational release and have necessary equipment and neutralization agents on-site.

7. Handling and storage

Precautions for safe handling	Avoid breathing vapor or mist. Do not get in eyes, on skin or on clothing, Wash thoroughly with water after handling, when mixing, slowly add to water to minimize heat generation and spattering.
Condition for safe storage, including any incompatibilities	Store and handle in accordance with all current regulations and standards. Keep containers 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 (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits	2 mg/m ³ OSHA TWA, 2 mg/m ³ OSHA ceiling (vacated by 58 FR 35338, June 30, 1993), 2=mg/m ³ ACGIH ceiling
Immediately dangerous to life or health	10 mg/m ³
Appropriate engineering controls	Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields. Wear chemical safety goggles with a face shield or chemical splash hood to protect against skin contact when appropriate. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear chemical resistant clothing and rubber boots when potential for contact with the material exists. Contaminated clothing should be removed, then discarded or laundered. Always place pants legs over the boots.
Respiratory protection	Where vapor concentration exceeds or is likely to exceed applicable exposure limits, a NIOSH approved respirator with acid gas canister is required. If eye irritation occurs, a full face style mask should be used. When an air-purifying respirator is not adequate or when there are vapor concentrations above 10 ppm or for spills and or emergencies, a NIOSH approved self-contained breathing apparatus or airline respirator with full-face piece is required. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.
Protective material types	Butyl rubber, natural rubber, neoprene, nitrile, polyvinyl chloride (PVC), Tychem®

9. Physical and chemical properties

Appearance	
Physical state	Liquid
Form	Viscous liquid
Color	Clear
Odor	Odorless.
Odor threshold	Not available
pH	14
Melting point/freezing point	-20 to 53°F (-29 to 12°C)

Initial boiling point and boiling range	230 – 291°F (110 – 144°C)
Flash point	Not available
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Upper/lower flammability or explosive limits	
Flammability limit – lower (%)	Not available
Flammability limit – lower (%) temperature	Not available
Flammability limit – upper (%)	Not available
Flammability limit – upper (%) temperature	Not available
Explosive limit – lower (%)	Not available
Explosive limit – upper (%)	Not available
Vapor pressure	< 10 mm Hg @ 20°C
Vapor density	Not Available
Relative density	(water = 1); 1.168 - 1.54 @ 15.6°C
Density	9.73 -12.84 lbs/gal @15.6°C
Solubility(ies)	
Solubility (water)	Completely miscible
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available (The degradation rate doubles for every 10°F above 70°F)
Viscosity	Not Available
Other information	
Molecular weight	40.0
Chemical family	Alkali

10. Stability and reactivity

Reactivity	Stable at normal temperature and pressure.
Conditions to avoid	Mixing with water, acid or incompatible materials may cause splattering and release of large amounts of heat. Will react with some metals forming flammable hydrogen gas. Carbon monoxide gas may form upon contact with reducing sugars or food and beverage products in enclosed spaces.
Incompatible materials	Acids, halogenated compounds, prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys.
Hazardous decomposition products	Thermal decomposition products: none known.
Polymerization	Will not polymerize

11. Toxicological information

Information on toxicological effects	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 it 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. Ingestion may cause irritation, corrosion/ulceration, nausea, and vomiting. 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. In rare cases, reports have noted long-term inhalation causes bronchial inflammatory reaction or obstructive airway dysfunction.
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Acute Toxicity

TestSpecies	Test results
Dermal- LD50	Rabbit > 2 g/kg
Oral-LD50	Rat 220 mg/kg (50% solution)

Medical conditions aggravated by exposure Respiratory system (including asthma and other breathing disorders)

12. Ecological information

Ecotoxicity This material has exhibited moderate toxicity to aquatic organisms.

Fish toxicity	LC50	Daphnia	100 ppm
	LC50	Brook Trout	25 ppm 24 hours
	LC50	King salmon	48 ppm
	LC50	Shrimp	33-100 ppm 48 hours
	LC50	Cockle	330-1000 ppm 48 hours

Fate and transport Biodegradation: this material is inorganic and not subject to biodegradation.

Persistence This material is alkaline and may raise the pH of surface water with low buffering capacity. This material is believed to exist in the disassociated state in the environment.

Bioconcentration This material is believed not to bioaccumulate.

Ecological information This material has exhibited slight toxicity to terrestrial organisms

13. Disposal considerations

Disposal instructions Reuse or reprocess if possible. Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262.

Hazardous waste code Hazardous Waste Number(s): D002.

14. Transport information

US DOT

U.S. DOT 49 CFR 1712.101

UN number	UN1824
Proper shipping name	Sodium hydroxide solution.
Hazard class or division	8
Packing group	II
Environmental hazard	Marine pollutant No
Labeling requirements	8
Dot hazardous substance(s)	Sodium hydroxide 1000 lb(s) (454 kg(s))

Canadian transportation of dangerous goods:

Shipping name	Sodium hydroxide solution,
UN number	UN1824,
Class	8
Packing group/risk group	II

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 (40CFR 370.21)

Acute	Yes
Chronic	No
Fire	No
Reactive	No
Sudden release	No

SARA title III section 313(40CFR 372.65)	Not regulated
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OSHA process safety (29CFR 1910.119)	Not regulated
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FDA	This material has Generally Recognized as safe (GRAS) status under specific FDA regulations. Additional information is available from the Code of Federal Regulation's (CFR) which is accessible on the FDA's website.
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STATE REGULATIONS

California Proposition 65	This product may contain contaminants known to the State of California to cause cancer or reproductive toxicity as listed under Proposition 65 State Drinking Water and Toxic Enforcement Act.		
New Jersey worker and community right to know Reporting requirement	Sodium hydroxide	1310-73-2	15 – 51%
Right to know hazardous substance list	Sodium hydroxide	1310-73-2	15 – 51%
Special health hazard substance list	Sodium hydroxide	1310-73-2	15 – 51%
Pennsylvania right to know Reporting requirement	Sodium hydroxide	1310-73-2	15 – 51%
Hazardous substance list	Sodium hydroxide	1310-73-2	15 – 51%
Environmental hazardous substances list	Sodium hydroxide	1310-72-2	15 – 51%
Special hazardous substance list	not regulated		

CANADIAN REGULATIONS

Controlled products regulations (CPR) This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by the CPR.

Whmis classification DIB, E

National inventory status

U.S. inventory (TSCA) All components of this substance are listed on or are exempt from the inventory.

TSCA 12(b) export notification not listed

Canada inventory (DSL/NDSL) All components of this product are listed on the DSL.

16. Other information

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