



Caustic Soda-50%

1. Product and Company Identification

Product Name	Caustic Soda-50%	<i>NFPA diamond and HMIS ratings for this product may be found in section 16 of this Safety Data Sheet.</i>
Synonyms	Sodium hydroxide solution	
SDS	Number D20599	
Company Identification	Aquachem of America Inc. PO Box 129 Little Chute, WI 54140	
Telephone	Aquachem of America Inc. – 920-687-5238 CHEMTREC – 800.424.9300	<i>This product is certified to ANSI/NSF 60 Drinking Water Treatment Chemical standard</i>

2. Hazards Identification

Form	Liquid (may be turbid)
Color	Clear or opaque, colorless
Odor	Odorless
OSHA/HCS Status	Material is considered hazardous by the OSHA Hazard Communication standard (29 CFR 1910.1200); corrosive
GHS Classification	Corrosive to metals (Category 1) Skin corrosion (Category 1) Serious eye damage (Category 1) Acute aquatic toxicity (Category 3)
Pictogram	
Signal Word	Danger
Hazard Statement(s)	
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage
H402	Harmful to aquatic life.
Precautionary Statement(s)	
P234	Keep only in original container.
P260	Do not breathe fumes/mists.
P264	Wash skin thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.



P304+P340+P310	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338+P310	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 or doctor/physician.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

Potential Acute Health Effects

Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Ingestion	May be harmful if swallowed.
Skin	Causes skin burns.
Eyes	Causes severe eye burns.

See section 11 for more detailed information on health effects and symptoms

3. Composition/Information on Ingredients

<u>Ingredient Name</u>	<u>CAS Number</u>	<u>WT %</u>
Sodium Hydroxide	1310-73-2	50
Water	7732-18-5	50

4. First Aid Measures

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.
Skin Contact	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
Inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Protection of First Aid Personnel	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wear gloves while removing contaminated clothing. If it is suspected that dust, vapor, mist, or gas is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus.



5. Fire-fighting Measures

Flammability of the Product Not flammable or combustible

Flash Point (Method) None

Auto Ignition Temperature None

Extinguishing Media

Suitable Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Not Suitable No data available

Special Fire-fighting Procedures & Hazards Incipient fire responders should wear eye protection. Structural fire fighters must wear self-contained breathing apparatus and full protective equipment. If possible, prevent run-off water from entering storm drains, bodies of water, and other environmentally sensitive areas.

Unusual Fire & Explosion Hazards This material in contact with water or acids may generate sufficient heat to ignite nearby combustible materials. Contact with aluminum, tin, or zinc will result in the generation of heat and release of hydrogen gas. Run-off from fire control may cause pollution. Keep fire-exposed containers cool with water spray to prevent rupture due to excessive heat. High pressure water hose may spread product and produce irritating fumes and toxic gases (including carbon monoxide, carbon dioxide, and sodium oxides). Products of combustion are irritating to the respiratory tract and may cause breathing difficulty. Symptoms may be delayed several hours or longer depending upon extent of exposure.

6. Accidental Release Measures

Personal Precautions Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental Precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge to the environment must be avoided.

Spill Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. Handling and Storage

Handling Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.
Storage Keep containers tightly closed in a dry and well-ventilated area. containers which are opened must be carefully resealed and kept upright to prevent leakage. Store above 55 °F (12.8 °C).

8. Exposure Controls/Personal Protection

Ingredient Name
Sodium Hydroxide

ACGIH TLV
2 mg/m³ – ceiling concentration

OSHA PEL
2 mg/m³ – TWA



Engineering Measures	Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure. Maintain adequate ventilation. Keep levels below exposure limits.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Respiratory	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.
Eyes and Face	Wear chemical safety goggles while handling this product. Wear additional eye protection such as a face shield when the possibility exists for eye contact with splashing or spraying liquid or airborne material.
Skin	Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: gauntlet-type, neoprene, nitrile.

9. Physical and Chemical Properties

Appearance	Clear or opaque colorless liquid
Odor	Odorless
pH	> 13
Water Solubility	Complete
Vapor Density (air = 1)	Not established
Evaporation rate (butyl acetate = 1)	Not established
Boiling Point (°F)	About 293 °F (145 °C)
Freezing Point (°F)	About 54°F (12.2 °C)
Specific Gravity (H ₂ O = 1 @ 70 °F)	1.525
Vapor Pressure (mm Hg, 20 °C)	6.3
Volatile Organic (VOC) Content	None

10. Stability and Reactivity

Stable: ☒ Unstable: ☐ Hazardous Polymerization: ☐ Occurs: ☐ Does Not Occur: ☒

Conditions to Avoid	Avoid exposure or contact to extreme temperatures and incompatible chemicals.
Materials to Avoid	Reacts with strong acids. Incompatible with organic halogen compounds, organic nitro compounds, aluminum, zinc, tin, and other metals. Avoid contact with leather and wool. Reactions with various food sugars may form carbon monoxide.



Decomposition Products

Thermal decomposition products can include carbon monoxide, carbon dioxide, and sodium compounds.

11. Toxicological Information

Eye	Causes severe eye burns.
Sodium Hydroxide	Eyes - rabbit – severe – 24 h
Dermal	Causes skin burns.
Sodium Hydroxide	Dermal LD50 – no data available
	Skin corrosion/irritation: rabbit – causes severe burns – 24 h
Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Sodium Hydroxide	Inhalation LC50 – no data available
Oral	May be harmful if swallowed.
Sodium Hydroxide Oral	LD50 – mouse – 40 mg/kg

Potential Chronic Health Effects

Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible, or confirmed human carcinogen by IARC, ACGIH, NTP, or OSHA.
Mutagenicity	No data available
Teratogenicity	No data available
Fertility Effects	No data available

Over-exposure Signs/Symptoms

Burning sensation, cough, wheezing, laryngitis, shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, and pulmonary edema. Material is extremely destructive to tissue of the mucous membranes, upper respiratory tract, eyes, and skin.

12. Ecological Information

Biodegradability	No data available
Ecotoxicity	Toxicity to fish: No data available Toxicity to aquatic invertebrates: No data available

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

13. Disposal Considerations

Waste Disposal	Dispose of in a permitted hazardous waste management facility following all local, state, and federal regulations.
RCRA	The RCRA waste code of D002 (corrosive waste) should be assigned in Discussion between the user, the producer, and the waste disposal company.



14. Transportation

The data provided in this section is for information only and may not be specific to your package size or mode of transport. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

US DOT 49 CFR 172.101	Non-bulk Shipments (Drums/Totes)	Bulk Shipments (Tank Trucks/Rail Cars)
Proper Shipping Name	Sodium Hydroxide Solution	Same
Hazard Class	8	Same
Identification Number	UN1824	Same
Packing Group	II	Same
Reportable Quantities	RQ=1000 lbs.	Same
Placards/Labels	Corrosive	Same

15. Regulatory Information

CERCLA / SARA Emergency Reporting	A spill or release of this material may trigger the emergency release reporting requirements under CERCLA (40 CFR Part 300) and/or SARA Title III (40 CFR Part 355). State or local reporting requirements may differ from federal requirements. Consult counsel for further guidance on your responsibilities under these laws. Sodium Hydroxide CERCLA reporting amount – 1000 lbs.
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SARA Title III Section 313 Clean Water Act (CWA) Section 311	This product does not require reporting. The following chemicals are listed under Section 311 as hazardous substances requiring the submission of a National Pollutant Discharge Elimination System (NPDES) permit application to EPA. Sodium Hydroxide
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TSCA – Toxic Substances Control Act	All components of this product are listed as “Active” on the Toxic Substances (TSCA) 8(b) Inventory.
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RCRA – Resource Conservation and Recovery Act	The requirements of the federal hazardous waste regulations do not apply unless the waste fails to pass any of EPA’s four tests for determining hazardous wastes. Note: If this product is altered, it is the responsibility of the user to determine whether the material meets the criteria for hazardous waste at the time of disposal. Waste Code D002 - Corrosivity
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State Regulations Massachusetts	RTK Substances: The following components are listed: Sodium Hydroxide (CAS #1310-73-2)
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New Jersey	RTK Substances: The following components are listed: Sodium Hydroxide (CAS #1310-73-2)
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Pennsylvania

RTK Substances: The following components are listed: Sodium Hydroxide (CAS #1310-73-2)

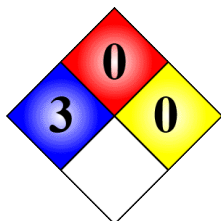
California

Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other Information

Date of Issue 10/31/2013 | 3/30/2015-updated GHS classification, hazard, and precautionary statements | 2/12/2019-added precautionary code P260, section 2 – updated RCRA information, sections 13 & 15 (ST) | 10/08/2019 – updated TSCA statement, section 15 (RP) | 2/8/2021-updated address, section 1 (ST) | 3/30/2022-added drinking water treatment chemical information, section 1 & 16 (ST)

NFPA



ANSI/NSF 60
DRINKING WATER
TREATMENT CHEMICAL
<2N29>

HMIS

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	1
PPE	

Caution: NFPA and HMIS ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although these ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them.
The customer is responsible for determining the PPE code for this material.

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