

Safety Data Sheet Sodium Hydroxide 10N Solution

Section 1 – Chemical Product and Company Identification

1.1 Product Identifiers

Product Name: Sodium Hydroxide 10N Solution

CAS#: 1310-73-2

EC#: 215-185-5

1.2 Recommended Use of the Chemical and Restrictions of Use

Chemical manufacturing

1.3 Supplier Details

BioSpectra, Inc.
100 Majestic Way
Bangor, PA 18013
610-599-3400

1.4 Emergency Numbers

US & Canada: 1-800-424-9300

Outside the US & Canada: +1 703-527-3887

Section 2 – Hazards Identification

2.1 Classification of the Substance or Mixture

HCS Classification in accordance with 29 CFR 1910.1200 & Regulation (EC) 1272/2008

Skin Irritation: Category 1A

Eye Irritation: Category 1

Acute Aquatic Toxicity: Category 3

Specific Target Organ Toxicity: Kidney, Liver, Eyes, Mucous Membranes, Respiratory System, Cardiovascular System

2.2 GHS Label Element Including Precautionary Statements

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 dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary Statement(s)	
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do not induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor/physician.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material-damage.
P405	Store locked up.
P406	Store in corrosive resistant container/container with a resistant inner liner.
P501	Dispose of contents/container in accordance with local regulations.

2.3 Hazards not classified or not covered by the GHS

PBT/vPvB assessment has not been performed.

Section 3 – Composition, Information on Ingredients

3.1 Substances

Component	Formula	CAS-No	Weight %
Water	H ₂ O	7732-18-5	68-72
Sodium Hydroxide	NaOH	1310-73-2	28-32

Section 4 – First Aid Measures

4.1 Description of Necessary First Aid Measures

General Advice:

Eyes: Immediately flush eye with water for at least 15 minutes. Seek medical attention immediately.

Skin: Immediately wash affected skin area with soap and water. Flush the area with large amounts of cool water. Get medical attention immediately.

Ingestion: Do not induce vomiting. If the person is able to swallow, give them large quantities of water to dilute the solution. Seek medical attention immediately.

Inhalation: Move the exposed person to fresh air immediately. If breathing has stopped, perform artificial respirations. Seek medical attention immediately.

4.2 Most Important Symptoms/Effects, Acute and Delayed: Destruction of skin at the site of contact, varying degrees of irritation to the respiratory system. Effects may be delayed.

4.3 Indication of Immediate Medical Attention and Special Treatment: Seek medical attention immediately if unintentional contact has been made.

4.4 Note to physician: Perform endoscopy if ingestion occurred. Continual monitoring and general supportive measures should be taken.

Section 5 – Firefighting Measures

5.1 Extinguishing Media: Not considered a fire hazard. Use alcohol-resistant foam, water spray, dry chemical CO₂ for surrounding media.

5.2 Specific Hazards Associated with this Chemical: Toxic fumes under fire conditions.

5.3 Special Equipment/Precautions for Firefighters: Wear NIOSH approved self-contained breathing apparatus and full protective clothing.

Section 6 – Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency

Procedures: Keep persons away that are not wearing personal protective equipment. Avoid contact with unprotected skin or eyes. Seek immediate medical attention if contact is made.

6.2 Environmental Precautions: Prevent spillage from entering drains. Federal or local reporting requirements should be met.

6.3 Methods and Materials for Containment and Cleaning Up:

Neutralize the spill. Absorb the spill with noncombustible absorbent material. Place material in suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all materials in accordance with regulations.

Section 7 – Handling and Storage

7.1 Precautions for Safe Handling: Wear proper personal protection equipment as outlined in Section 8. Keep container closed when not in use.

7.2 Conditions for Storage Including any Incompatibilities: Store in cool, well ventilated and dry area. Store above 15.5°C (60°F) to prevent freezing. Keep away from incompatible materials.

Section 8 – Exposure Controls, Personal Protection

8.1 Control Parameters:

Component	Exposure Limits	Basis	Source
NaOH	2.0 mg/m ³	PEL	OSHA
NaOH	2.0 mg/m ³	TLV	ACGIH

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value

8.2 Personal Protective Measures:

Eyes: Safety glasses or goggles and a face shield.

Skin: Skin should be covered at all times.

Hands: Nitrile or neoprene gloves.

Respiratory: Wear full respiratory equipment if proper ventilation cannot be achieved.

Section 9 – Physical and Chemical Properties

9.1 Chemical Property Information

Physical State: Liquid	Appearance: Colorless to slightly gray
Melting Point: N/A	Molecular Formula: NaOH
Odor: Odorless	Specific Gravity/Density: 1.32 @ 25°C
pH: 14.0	Solubility: Soluble in water.
Vapor Density: 1.38	Molecular Weight: 40.00 g/mol (dry basis)
Viscosity: N/A	Vapor Pressure mmHg @20°C: 14.4
Density: 1.2760	Decomposition Temperature: N/A
Freezing: -12- 15°C	Boiling Point: 105-142°C

Section 10 – Stability and Reactivity

10.1 Chemical Stability: Stable

10.2 Conditions to Avoid: Storage in high heat due to accelerated corrosion.

10.3 Incompatibilities with Other Materials: Water, acids, organic materials, chlorinated solvents, nitromethane, aluminum, phosphorus, zinc and tin/tin oxides.

10.4 Hazardous Decomposition Products: Sodium oxides and reactions with some metals yield Hydrogen gas.

Section 11 – Toxicological Information

11.1 Toxicological Effects

LD50/LC50: Rabbit (dermal) 1350mg/kg
 Rabbit (eye) 50µg/24H severe
 Rat (oral) 140-340 mg/kg
 Mouse (oral) 40 mg/kg

Carcinogenicity: N/A

Potential Health Effects: Severity of the damage will depend on the time of exposure. Eyes may burn, skin may burn, respiratory symptoms may include burning and choking, ingestion may create nausea and vomiting along with severe pain.

Respiratory or Skin Sensitization: N/A

Epidemiology: N/A

Teratogenicity: N/A

Reproductive Effects: N/A

Neurotoxicity: N/A

Mutagenicity: N/A

Section 12 – Ecological Information

12.1 Ecotoxicity: EC50: 34.6/48HR LC50:160mg/l 24HR freshwater static

12.2 Persistence and Degradability: This chemical consists mainly of inorganic materials which are not biodegradable.

12.3 Bioaccumulative Potential: Not expected to bioaccumulate

12.4 Mobility in Soil: Soluble in water

12.5 Result of PBT and vPvB assessment: Not yet performed

12.6 Other Adverse Effects: Toxicity to fish due to ability to significantly alter pH.

Section 13 – Disposal Considerations

13.1 Disposal Methods: Review local/ federal regulations for proper disposal. Any waste generated is considered hazardous and only packages that are approved (DOT or ADR) can be used.

Section 14 – Transport Information

Regulations	US DOT	IATA	IMDG	ADR
Shipping Name	Sodium Hydroxide Solution, Liquid	Sodium Hydroxide Solution, Liquid	Sodium Hydroxide Solution, Liquid	Sodium Hydroxide Solution, Liquid
Hazard Class	8	8	8	8
UN Number	UN1824	UN1824	UN1824	UN1824
Packing Group	II	II	II	II

Section 15 – Regulatory Information

15.1 EHS Chemical Specific Regulations

Ingredient	Sodium Hydroxide	Water
CAS Number	1310-73-2	7732-18-5
SARA 302 RQ	NO	NO
SARA 302 TPQ	NO	NO

SARA 313 List Chemical	NO	NO
SARA 313 Category	NO	NO
RCRA CERCLA	1000	NO
RCRA 261.33	NO	NO
TSCA INVENTORY	YES	YES
TSCA 8(d)	NO	NO

Section 16 – Additional Information

16.1 Hazard Ratings

HMIS Classification

Health: 3

Fire: 0

Reactivity: 1

Personal: H

NFPA Rating

Health: 3

Fire: 0

Reactivity: 1

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