



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

Supplier : BioSpectra, Inc.
100 Majestic Way
Bangor, PA 18013
T: 610-599-3400
ra@biospectra.us

1.4 Emergency Numbers

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

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.
H318 – Causes serious 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.
- : 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

No other hazards identified.

SECTION 3 – Composition, Information on Ingredients

3.1 Substances

Component	Formula	CAS-No	Weight %
Water	H ₂ O	7732-18-5	68-71%
Sodium Hydroxide	NaOH	1310-73-2	29-32%

SECTION 4 – First Aid Measures

4.1 Description of Necessary First Aid Measures

- 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 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

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 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
Melting Point	: N/A
Odor	: Odorless
pH	: 14.0
Vapor Density	: 1.38
Viscosity	: N/A

Density	: 1.2760
Freezing	: -12- 15°C
Appearance	: Colorless to slightly gray
Molecular Formula	: NaOH
Specific Gravity/Density: 25%	: 1.2818 @ 15.2°C
Solubility	: Soluble in water.
Molecular Weight	: 40.00 g/mol (dry basis)
Vapor Pressure mmHg @20°C	: 1.33
Decomposition Temperature	: N/A
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:	Not applicable
Rabbit (eye)	: 50µg/24H severe
Rabbit (dermal)	: 1350mg/kg
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	: Not applicable
Epidemiology	: Not applicable
Teratogenicity	: Not applicable
Reproductive Effects	: Not applicable
Neurotoxicity	: Not applicable
Mutagenicity	: Investigated as a mutagen

SECTION 12 – Ecological Information

12.1 Ecotoxicity

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

12.2 Persistence and Degradability

Not Applicable

12.3 Bioaccumulative Potential

Not Applicable

12.4 Mobility in Soil

Not Applicable

12.5 Result of PBT and vPvB assessment

Not Applicable

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.

SECTION 14 – Transport Information

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