

SAFETY DATA SHEET

Revision Date 01/10/2021

1 SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers:

Product Name Sodium hydroxide, 0.5N Standardized Solution
Cat Number S131073-05N

1.2 Identified uses: Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet:

Company: UFC Biotechnology Inc.
 435 Creekside Drive, Suite 5
 Amherst NY 14228
 UNITED STATES

Telephone: +1-716-777-3776
Fax: +1-716-240-2713

1.4 Details of the supplier of the safety data sheet:

Emergency Phone # : +1-800-535-5053 INFOTRAC (USA) – 24h, 7 Days/week
 +1-352-323-3500 INFOTRAC (International) – 24h, 7 Days/week

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Health Hazards

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1

Environmental Hazards

Corrosive to metals	Category 1
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GHS label elements, including precautionary statements

2.2

Hazard Symbol:



Signal Word: **Danger**

Hazard Statement(s): Corrosive to metals
 Causes skin irritation
 Causes serious eye damage

Precautionary Statements:

Prevention: Wash face, hands, and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection
 Keep only in the original container.

Skin: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eyes: 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.

- Spills:** Absorb spillage to prevent material damage.
- Storage:** Store in a corrosive resistant polypropylene container with a resistant liner.
- Disposal:** Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards which do not result in classification

None

Section 3: Composition/information on ingredients

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration (% weight)
Water	Water, aqua	7732-18-5		≥98 – 99≤%
Sodium hydroxide	Caustic soda	1310-73-2		1-2%

Section 4: First-aid measures

4.1 Description of necessary first-aid measures

- If inhaled* Move the person to fresh air and keep them comfortable for breathing. If breathing is difficult, seek medical attention immediately.
- In case of skin contact* Remove any clothing or shoes from the contacted area. Flush the contacted area with plenty of water and get medical aid if irritation develops/worsens. Can cause severe burns.
- In case of eye contact* Flush eyes with plenty of water; make sure to be very thorough. Continue to rinse for 5 minutes minimum. If irritation occurs, get medical aid. Causes severe eye damage.
- If swallowed* Do not induce vomiting, instead rinse the person's mouth with water. Seek medical attention immediately; may be fatal if swallowed.

Section 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media* Use water spray, alcohol-resistant foam, dry chemical. It can react with carbon dioxide to make sodium carbonate.

5.2 Specific hazards arising from the chemical

In a fire scenario, water can evaporate leaving hazardous decomposition products.

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary and always wear full protective equipment.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear appropriate protective equipment including respiratory protection. Keep out of contact with spilled solution. Only touch spilled materials when wearing appropriate protective equipment.

6.2 Environmental precautions

Avoid release of materials to the environment and stop running off to waterways/sewers.

6.3 Methods and materials for containment and cleaning up

Take up liquid spill with absorbent material. Then dispose of materials at an authorized site.

Section 7: Handling and storage

7.1 Precautions for safe handling

Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Provide good ventilation of working area (local exhaust ventilation if necessary).

Wash hands before breaks and immediately after handling the product. Do not eat, drink or smoke when working. Remove soiled or soaked clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities

Keep the container tightly closed in a dry and well-ventilated place. Store at room temperature.

Section 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

Chemical Name	OSHA – PEL (mg/m ³)	NIOSH – REL (mg/m ³)	ACGIH – TLV (mg/m ³)
Sodium Hydroxide	2	2	2

8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practices. Wash hands before breaks and at the end of workday.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching the glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body protection Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection Respiratory protection is not required. in case of formation of vapours/aerosols: Short term: filter apparatus, combination filter A-P2.

Control of environmental exposure No special environmental precautions required.

Section 9: Physical and chemical properties

Appearance	Clear liquid
Odor	No odor
Melting point/ freezing point	0°C (32°F)
Boiling point or initial boiling point and boiling range	100°C (212°F)
Flammability	Not applicable
Lower and upper explosion limit / flammability limit	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	No data available
Kinematic viscosity	No data available
Solubility in water	Soluble in water
Partition coefficient octanol/water (log value)	No data available
Vapour pressure	No data available
Density and/or relative density	1.0
Particle characteristics	No data available

Section 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

May react with carbon dioxide to form sodium carbonate

10.5 Incompatible materials

Acids, metals, organic compounds.

10.6 Hazardous decomposition products

Sodium oxide and may react with metal to form flammable and explosive gas (hydrogen).

Section 11: Toxicological information

Acute toxicity

Oral: No data available

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

(Rabbit): This material may cause moderate to severe irritation and potentially burn the skin

Serious eye damage/irritation

Serious irritant effect

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity Reproductive toxicity

No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration hazard

No data available

Additional information

No data available

Section 12: Ecological information

12.1 Toxicity

- Toxicity to fish: LC50 – 45.4 mg/L, 96h static

Toxicity to daphnia and other aquatic invertebrates: no data available

- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assesment

No data available

12.6 Other adverse effects

Discharge into the environment must be avoided

Section 13: Disposal considerations

13.1 Disposal methods

Product Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging Dispose of as unused product.

Section 14: Transport information

DOT (US)

UN Number: UN1824
Shipping name: Sodium Hydroxide Solution
Hazard Class: 8
Packing group: II
Exceptions: Quantity equal to or less than 1 liter.

IMDG

UN Number: UN1824
Shipping name: Sodium Hydroxide Solution
Hazard Class: 8
Packing group: II

IATA

UN Number: UN1824
Shipping name: Sodium Hydroxide Solution
Hazard Class: 8
Packing group: II

Section 15: Regulatory information

Adhere to all Federal, State and local Regulations

Section 16: Other information

References: Not available.

Other Special Considerations: Not available.

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