

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product	Lysis Buffer
Chemical characterization	Dilute base with surfactant
Supplier	Edge BioSystems 201 Perry Parkway, Suite 5 Gaithersburg, MD 20877 Tel: 1.301.990.2685 1.800.326.2685 Fax: 1.301.990.0881 www.edgebio.com
Emergency telephone number	1.800.326.2685
Product use	Lysis buffer
Canadian PIN	1824

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components	Name	CAS Number	Weight %
	Sodium hydroxide	1310-73-2	<1%
	Sodium dodecyl sulfate	151-21-3	1 - 5

Other components	Name	CAS Number	Weight %
	Water	7732-18-5	94 - 98

See Section 15 of this MSDS for OSHA Regulatory Status

3. HAZARDS IDENTIFICATION

Emergency overview	Clear, colorless liquid. Causes burns to eyes, skin and digestive tract. Breathing mists can irritate the respiratory tract. Will not burn. In case of fire, use extinguishing media suitable for the material that is burning.
Primary route(s) of entry	Skin and eye contact
Symptoms of exposure	
Inhalation	Breathing mist may cause irritation to respiratory tract.
Eye contact	Causes irritation or possible eye damage. Symptoms include pain, tearing, redness.

Skin contact	Causes irritation of possible burns. Symptoms include pain, redness, swelling.
Ingestion	May cause irritation or burns to gastro-intestinal tract.
Medical conditions aggravated by exposure	None known.
Listed as carcinogen or potential carcinogen	Not listed by OSHA, the International Agency for Research on Cancer (IARC), or the National Toxicology Program (NTP)

4. FIRST AID

Inhalation	Remove from area to fresh air. If not breathing, give artificial respiration or use a bag-mask respirator. Get immediate medical attention. If victim is having trouble breathing, transport to medical care and, if available, give supplemental oxygen.
Eye contact	Immediately rinse eyes slowly and gently with water for at least 15 minutes while holding eyelids apart to ensure rinsing of the entire surface of the eyes and lids with water. Remove any contact lenses after the first 5 minutes and then continue flushing eyes. Get immediate medical attention. If physician is not available, flush for an additional 15 minutes.
Skin contact	Wash affected areas with large amounts of running water, and soap if available, for 15 minutes. Remove contaminated clothing and shoes. Get immediate medical attention. Wash clothing and decontaminate shoes before reuse.
Ingestion	Give 3-4 glasses of water, but DO NOT induce vomiting. If vomiting occurs, give fluids again. Get medical attention to determine whether vomiting or evacuation of stomach is necessary. Do not give anything by mouth to a unconscious or convulsing person.
Note to physician	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flash Point and Method	N/A
General hazard	Does not present any special hazards.
Extinguishing media	Use media suitable for the material that is burning.
Extinguishing media to avoid	None
Special firefighting instructions	Move containers from area if it can be done without risk.
Firefighting equipment	As in any fire, wear NIOSH approved, positive-pressure, self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear appropriate protective equipment (See Section 8). Do not get in eyes, on skin or on clothing.
Environmental precautions	Keep out of sewers or waterways.
Clean-up methods	Absorb in kitty litter, dry sand or earth and place into containers for disposal. Neutralize spill area with vinegar.

7. HANDLING AND STORAGE

Handling	Wear appropriate protective equipment (See Section 8). Do not get in eyes, on skin or on clothing. Wash thoroughly after handling.
Storage	Keep container tightly closed. Store at room temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	General ventilation.
Personal Protection	
Respirator	In operations where mists are generated or established exposure limits exceeded, use a NIOSH approved respirator that has been selected by an industrial hygienist or other technically qualified person for the specific work conditions. If respirators are used, OSHA requires compliance with its respiratory protection program (29 CFR 1910.134).
Eye Protection	Wear safety glasses or vented safety goggles.
Gloves	Wear rubber gloves.
Clothing	Normal work clothing.
Other	Eye wash, emergency shower.
Exposure controls	Sodium hydroxide ACGIH TLV: 2 mg/m ³ Ceiling (STEL) OSHA PEL: 2 mg/m ³ (TWA)

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Color	None
Odor	None
Properties	pH: 13.2 @ 20° C Vapor Pressure (20° C): 23 hPa Relative density (20° C): 0.991 g/cm ³ Water solubility: Completely miscible

10. STABILITY AND REACTIVITY

Reactivity	Stable
Materials to avoid	Strong acids (reacts vigorously, generating lots of heat). Product is corrosive to aluminum.
Conditions to avoid	None known
Hazardous decomposition products	Oxides of sulfur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity	No information on product is available.
Chronic Toxicity	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity	This product can increase the pH, harming aquatic organisms.
Persistence/degradability	No. information available.

13. DISPOSAL CONSIDERATIONS

RCRA hazardous waste code	D002
Special instructions	This product, as well as spill cleanups, are banned from land disposal without prior treatment (see 40 CFR 268). Observe all federal, state and local laws and regulations.

14. TRANSPORT INFORMATION

DOT hazard class	8
Proper shipping name	Sodium hydroxide solution
Identification number	UN1824
Label(s)	Corrosive
Packing group	III
Packaging Instructions	173.154, 173.203, 173.241
ERG Guide Number	154
Marine pollutant	No
TDG hazard class	8

15. REGULATORY INFORMATION

OSHA regulatory status (29 CFR 1910.1200)	Hazardous
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CERCLA reportable quantity (40 CFR 117, 302)	Name	Reportable quantity (lbs)	
	Sodium hydroxide	1,000	
SARA extremely hazardous substances (40 CFR 355)	Name	Threshold planning quantity (lbs)	Reportable quantity (lbs)
	None	N/A	N/A
SARA hazard categories (40 CFR 370)	Immediate (Acute)		
SARA toxic chemicals (40 CFR 372)	Name	CAS Number	Percentage
	None	N/A	N/A
Inventory Status	The chemicals in this product are listed on the US TSCA Chemical Substances Inventory and the Canadian Domestic Substances List.		
Toxic Substance Control Act	No specific regulations apply.		
Controlled Products Regulations	This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33, and the MSDS contains all required information.		
WHMIS classification	E		
State regulations			
FL Hazardous Substance List	Sodium hydroxide		
MA Right to Know List	Sodium hydroxide		
MN Hazardous Substance List	Sodium hydroxide		
NJ Right to Know List	Sodium hydroxide		
PA Right to Know List	Sodium hydroxide		
RI Hazardous Substance List	Sodium hydroxide		

16. OTHER INFORMATION

Abbreviations	<p>C – Ceiling limit ERG – Emergency Response Guidebook LC₅₀ – The concentration of a substance in air that will kill 50% of test animals within a certain exposure period. LD₅₀ – The dose that causes death in 50% of test animals. N/A – Not applicable N/D – Not determined N/E – Not established N/K – Not known PIN – Product Identification Number RQ – Reportable Quantity STEL – Short Term Exposure Limit TPQ – Threshold Planning Quantity TWA – Time Weighted Average WHMIS – Workplace Hazardous Materials Information System</p>
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Preparation information

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Disclaimer

The above information is believed correct, but does not purport to be all inclusive and shall only be used as a guide. Edge BioSystems shall not be held liable for any damage resulting from handling or from contact with the above product.