

# MATERIAL SAFETY DATA SHEET

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product</b>	5X Sequencing Buffer
<b>Chemical characterization</b>	Dilute Buffer Solution
<b>Supplier</b>	Edge BioSystems 201 Perry Parkway, Suite 5 Gaithersburg, MD 20877 Tel: 1.301.990.2685 1.800.326.2685 Fax: 1.301.990.0881 <a href="http://www.edgebio.com">www.edgebio.com</a>
<b>Emergency telephone number</b>	1.800.326.2685
<b>Product use</b>	Dilution Buffer
<b>Product Identification Number</b>	N/A

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

<b>Hazardous components</b>	<b>Name</b>	<b>CAS Number</b>
	None	
<b>Other components</b>	<b>Name</b>	<b>CAS Number</b>
	Water	7732-18-5
	Proprietary Salts	N/A

See Section 15 of this MSDS for OSHA Regulatory Status

## 3. HAZARDS IDENTIFICATION

<b>Emergency overview</b>	Clear, colorless liquid with no odor. Contact with liquid may irritate the eye or skin. May be harmful if swallowed.  Will not burn. If involved in a fire, use extinguishing media suitable for the material that is burning.
<b>Primary route(s) of entry</b>	Skin and eye contact.
<b>Symptoms of exposure</b>	
<b>Inhalation</b>	None expected.
<b>Eye contact</b>	May cause irritation, experienced as pain, redness, or tearing.
<b>Skin contact</b>	May cause irritation, experienced as redness or swelling.

**Ingestion** May cause irritation to gastro-intestinal tract, nausea and/or vomiting, diarrhea and other adverse health effects.

**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

**Eye contact** Hold eye open and flush slowly and gently with plenty of water for several minutes. Remove any contact lenses, and continue flushing for several more minutes. Seek medical attention if irritation develops and persists. Clean contacts before reuse.

**Skin contact** Wash affected areas with plenty of water, and soap if available. Seek medical attention if irritation develops and persists.

**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 an unconscious or convulsing person.

**Inhalation** None required under normal use conditions. Seek medical attention if respiratory irritation develops or if breathing becomes difficult.

**Note to physician** The toxicological properties of this product have not been determined.

#### 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). Avoid contact with eyes, skin or clothing.

**Environmental precautions** Keep large spills out of sewers or waterways.

**Clean-up methods** Absorb with Fuller's earth, vermiculite or other similar material. Sweep up and place in a compatible container for disposal.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Wear appropriate protective equipment (See Section 8). Avoid contact with eyes, skin or clothing. Do not pipette by mouth. Wash thoroughly after handling.
<b>Storage</b>	Store in a cool, dry place. Keep container tightly sealed.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Engineering controls</b>	Use in a laboratory exhaust hood. General dilution ventilation system should be adequate.
<b>Personal Protection</b>	
<b>Respirator</b>	None required under normal use conditions.
<b>Eye Protection</b>	Wear safety glasses or vented safety goggles.
<b>Gloves</b>	Rubber gloves are recommended as a minimum when handling chemicals.
<b>Clothing</b>	Long sleeved laboratory coats or jackets are recommended as a minimum when handling chemicals.
<b>Other</b>	Eye wash.
<b>Hygiene practices</b>	Do not pipette by mouth. Wash hands thoroughly after handling. Discard any contaminated leather or porous materials.
<b>Exposure controls</b>	N/E

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Form</b>	Liquid
<b>Color</b>	None
<b>Odor</b>	None
<b>Properties</b>	pH: 9.0 Relative density (20°C): 1.0 Water solubility: Soluble in all proportions.

## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	Stable
<b>Materials to avoid</b>	None known
<b>Conditions to avoid</b>	None known

Hazardous decomposition products      None known

### 11. TOXICOLOGICAL INFORMATION

Acute Toxicity      No information available.

Chronic Toxicity      No information available.

### 12. ECOLOGICAL INFORMATION

Ecotoxicity      No information available.

Persistence/degradability      No information available.

Movement/partitioning      No information available. Expected to be mobile in the environment due to high water solubility.

### 13. DISPOSAL CONSIDERATIONS

RCRA hazardous waste code      Not regulated

Special instructions      Observe all federal, state and local laws and regulations.

### 14. TRANSPORT INFORMATION

DOT hazard class      Not regulated

TDG hazard class      Not regulated

### 15. REGULATORY INFORMATION

OSHA regulatory status (29 CFR 1910.1200)      Not hazardous

CERCLA reportable quantity (40 CFR 117, 302)	Name	Reportable quantity (lbs)
	None	N/A

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)      None

SARA toxic chemicals (40 CFR 372)	Name	CAS Number	Percentage
	None	N/A	N/A

<b>Inventory Status</b>	The chemicals in this product are either on the TSCA Chemical Substance Inventory and Canadian Domestic Substance List or are subject to the Research and Development exemption.
<b>Toxic Substance Control Act</b>	May only be used for research and development purposes in small quantities by, or under the direct supervision of, technically qualified persons in compliance with 40 CFR Section 720.36.
<b>Controlled Products Regulations</b>	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.
<b>WHMIS classification</b>	Not a controlled product.

## 16. OTHER INFORMATION

<b>Abbreviations</b>	<p>C - Ceiling limit  ERG – Emergency Response Guidebook  LC<sub>50</sub> - The concentration of a substance in air that will kill 50% of test animals within a certain exposure period.  LD<sub>50</sub> - 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  ERG - Emergency Response Guidebook  RQ - Reportable Quantity  TPQ - Threshold Planning Quantity  WHMIS – Workplace Hazardous Materials Information System</p>
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### Preparation information

<b>Prepared by</b>	Occupational Health & Safety Department
<b>MSDS number</b>	4050171
<b>Date prepared</b>	12/23/02
<b>Replaces</b>	New

### 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.