



# MATERIAL SAFETY DATA SHEET

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product</b>	Enzyme Mix
<b>Chemical characterization</b>	Buffered Enzyme Mix 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>	Component of a reagent for disrupting bacterial cells
<b>Product Identification Number</b>	N/A

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components	Name	CAS Number	Weight %
	None		
Other components	Name	CAS Number	
	Water	7732-18-5	86 – 88
	Proprietary Enzymes	N/A	> 1%
	Tris-(hydroxymethyl) aminomethane	77-86-1	< 1%
	Ethylenediamine Tetraacetic Acid	60-00-4	< 1%
	Tris Hydrochloride	1185-53-1	< 1%

See Section 15 of this MSDS for OSHA Regulatory Status

## 3. HAZARDS IDENTIFICATION

<b>Emergency overview</b>	Clear, colorless liquid with no odor. Not expected to present a hazard.  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>	Eye and skin contact.
<b>Symptoms of exposure</b>	
<b>Inhalation</b>	None expected.
<b>Eye contact</b>	May cause slight irritation.

**Skin contact** None expected.

**Ingestion** May cause irritation 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

**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, for several minutes. 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 and skin.

**Environmental precautions** No special precautions.

**Clean-up methods** Absorb with kitty litter, sawdust, soda ash, or sand. Sweep up and place in

a suitable container for disposal.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Wear appropriate protective equipment (See Section 8). Avoid contact with eyes and skin. Use good laboratory practice. Wash thoroughly after handling.
<b>Storage</b>	Store at 4°C.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Engineering controls</b>	General ventilation.
<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>	Wear rubber gloves.
<b>Clothing</b>	Normal work clothing.
<b>Other</b>	Eye wash.
<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: 8.0 Relative density (20°C): N/D Water solubility: Completely soluble

## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	Stable
<b>Materials to avoid</b>	Oxidizing and reducing agents.
<b>Conditions to avoid</b>	None known.
<b>Hazardous decomposition products</b>	None for product sold.

## 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.

## 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

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

<b>SARA extremely hazardous substances (40 CFR 355)</b>	<b>Name</b>	<b>Threshold planning quantity (lbs)</b>	<b>Reportable quantity (lbs)</b>
	None	N/A	N/A

**SARA hazard categories  
(40 CFR 370)** None

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

**Inventory Status** 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.

<b>16. OTHER INFORMATION</b>
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<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>	4050211, 4050215, 4050220, 4050221
<b>Date prepared</b>	January 19, 2006
<b>Replaces</b>	New

<b>Disclaimer</b>	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.
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