

# SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product: Bactozol® Enzyme Solution**

Cat. No: BZ 160

Molecular Research Center, Inc.

5645 Montgomery Rd.

Cincinnati, Ohio 45212

USA 1-888-841-0900

Fax: 513-841-0080

Product Name: **Bactozol® Enzyme Solution**

Application: Bacterial enzyme lysing solution for DNA extraction

Chemical Formula: a formulation

**CHEMTREC EMERGENCY NUMBER:** Only in the event of an emergency involving a spill, leak, fire exposure or accident. USA: 1-800-424-9300; International: 1-703-527-3887; Non-emergency: 1-281-441-4400.

## 2. HAZARD IDENTIFICATION

### OSHA

No known OSHA hazards

### GHS Label elements

Pictogram none

Signal word none

### Health Hazard

<u>Hazard Class</u>	<u>Hazard category</u>	<u>Code</u>	<u>Health Hazard Statements</u>
Acute toxicity, oral	Category 5	H303	May be harmful if swallowed
Acute toxicity, dermal skin	Category 5	H313	May be harmful in contact with skin

### Code                      Precautionary statements

#### **Prevention**

P233	Keep container tightly closed.
P264	Wash...thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P281	Use personal protective equipment as required.

#### **Response**

P302+P361+P352	If on skin: Remove/take off all contaminated clothing. Wash with plenty of soap and water.
P303+P361+P353	If on skin or hair: Immediately take off all contaminated clothing. Rinse skin with water/shower.
P306+P363	If on clothing: Wash contaminated clothing before reuse.

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**EFFECTS OF OVEREXPOSURE:** The reagent may cause allergic skin reactions, irritating to skin, eyes, mucus membranes and upper respiratory tract. Avoid contact, ingestion and inhalation.

**ACUTE EFFECTS**

**EYE EXPOSURE:** May cause reddening and irritation of the eye resulting in conjunctivitis.

**SKIN EXPOSURE:** May cause irritation or reddening.

**INHALATION:** May cause irritation of the throat, coughing and respiratory tract irritation.

**INGESTION:** May be harmful if swallowed. The solution may be toxic to the kidney, the central nervous system, liver and mucus membranes.

**HMIS Classification**

Health Hazard 2  
Flammability 1  
Physical hazards 0  
PPE = D\*

**NFPA Rating**

Health Hazard 2  
Fire 1  
Reactivity 0

**3. COMPOSITION/Information on Ingredients**

Component	Classification	Concentration
Bactozol® Enzyme Solution	Proprietary formulation	100 %

**4. FIRST AID**

**FIRST AID FOR EYES:** Check for and remove contact lenses. Flush with water in eyewash for at least 15 minutes, holding eyelids open. Do not use eye ointment. Obtain medical attention if discomfort or medical symptoms persist.

**FIRST AID FOR SKIN:** Remove contaminated clothing. Flush area with water for 10-15 min. Decontaminate body surface with running water and nonabrasive soap. Obtain medical attention if discomfort or symptoms persist. Wash contaminated clothing before reusing.

**FIRST AID FOR INHALATION:** Remove person to fresh air. Monitor for respiratory distress and start artificial respiration, if needed. Obtain medical attention if discomfort or symptoms persist.

**FIRST AID FOR INGESTION:** Remove dentures, if any. Wash mouth and throat if conscious. Do not induce vomiting unless directed to do so by medical personnel. Lower head so vomit will not reenter the mouth or throat. Never give an unconscious person anything to ingest. Obtain medical attention.

**5. FIRE FIGHTING MEASURES**

**FLAMMABLE PROPERTIES:** Flash Point and Ignition Temperature are not available. The solution may be combustible at high temperature.

**EXTINGUISHING MEDIA:** Utilize a water spray, CO<sub>2</sub>, dry chemical powder, alcohol or polymer foam extinguisher for small fires.

**FIREFIGHTING PROCEDURES:** Wear positive pressure, self-contained breathing apparatus and protective clothing. Prevent contact with skin and eyes. The reagent may emit toxic fumes under fire conditions.

## 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PROTECTIVE EQUIPMENT FOR SPILL CONDITIONS:** Use gloves or other impermeable clothing to avoid skin contact. Use chemical goggles, face shield, or other appropriate eye protection.

**SPILL AND LEAK RESPONSE:** Wear personal protective equipment as required. Absorb liquid with polypads or other appropriate material. Wash spill site after material pickup is complete. Place spill residue in sealed bag and hold for waste disposal.

## 7. HANDLING AND STORAGE

**IRRITANT:** Keep container tightly closed and refrigerate or freeze enzyme solution for long-term storage. Avoid repetitive freeze-thaw cycles and contact with acids. Avoid skin contact and inhalation. Wear eye protection and gloves when handling. Keep container tightly sealed to minimize evaporation. Avoid eating and smoking in work areas.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**GENERAL PROTECTION AND PRECAUTIONS:** Ensure availability of eye wash station before using.

**ROUTINE OPERATIONS:** For routine use, latex gloves, chemical safety goggles, and lab coat are considered the minimum body protection. Avoid generation of aerosols. Wash hands before breaks and at the end of the workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and odor:	Clear, viscous liquid with no odor
Solubility:	Soluble in water
Specific gravity:	> 1

## 10. STABILITY AND REACTIVITY

**STABILITY:** Stable under normal temperature and pressure.

**INCOMPATIBILITIES:** Strong oxidizing agents, acids and alkalis. Avoid heat and flames.

**HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS:** Carbon, nitrogen and sulfur oxides.

## 11. TOXICOLOGICAL INFORMATION

The reagent may be harmful by inhalation, ingestion or skin absorption. Causes eye and skin irritation. Material is an irritant to mucous membranes and upper respiratory tract. Only selected data is presented here. To the best of our knowledge, all the properties of this formulation have not been investigated thoroughly.

## 12. ECOLOGICAL INFORMATION

No data available.

## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL BY INCINERATION:** Keep in sealed containers between use and final disposal. Solution may be incinerated in a hazardous waste incinerator equipped with afterburner and scrubber. Waste disposal activities are subject to federal, state and local laws and regulations.

**DISPOSAL IN WASTE WATER:** Low concentrations are expected to degrade in biological wastewater treatment facilities.

## 14. TRANSPORTATION INFORMATION

**DOT:** This material is not a hazardous material as defined by 49CFR 172.101 by the U.S. DOT.

**IATA:** Non-hazardous for air transport.

## 15. REGULATORY INFORMATION

**OSHA Hazards:** Irritant

**Risk Phrases:** R36/37/38 Irritating to eyes, respiratory system and skin.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36 Wear suitable protective clothing.

## 16. OTHER INFORMATION

Reviewed by	BW, MJ
Creation date	11/01/99
Revision date	1/01/18

Reason for Revision: Three-year update.

This information is believed to be accurate and represents the information currently available to us. However, we make no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.