

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product name: Immobilized bovine trypsin

Catalog number: BTRYP-I

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Identified uses: Laboratory chemicals, for research use only

Uses advised against: Not for clinical or diagnostic use

**1.3. Details of the supplier of the safety data sheet**

Molecular Innovations, Inc.

46430 Peary Court, Novi, MI 48377, USA

Tel: 248-896-0142

Fax: 248-896-0148

**1.4. Emergency telephone number**

Emergency number: 248-896-0142

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Not a hazardous substance or mixture.

**2.2. GHS label elements, including precautionary statements**

Not a hazardous substance or mixture. No labeling applicable.

**2.3 Hazards not otherwise classified (HNOC) or not covered by GHS**

None.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures**

Name	CAS No.	EC No.	Concentration	Classification
Glycerol	56-81-5	200-289-5	50%	Not classified

No ingredients are hazardous according to OSHA criteria.

No components need to be disclosed according to the applicable regulations.

**SECTION 4: First aid measures****4.1. Description of first aid measures****If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

**In case of skin contact**

Wash off with soap and plenty of water.

**In case of eye contact**

Flush eyes with water as a precaution.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water.

**4.2. Most important symptoms and effects, both acute and delayed**

None known.

**4.3. Indication of any immediate medical attention and special treatment needed**

In all cases of doubt, or when symptoms persist, seek medical attention.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2. Special hazards arising from the substance or mixture**

Carbon oxides.

**5.3. Advice for firefighters**

Use normal individual fire protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Avoid all unnecessary exposure. Avoid breathing vapors, mist or gas. For personal protection see section 8.

**6.2. Environmental precautions**

No additional information available.

**6.3. Methods and material for containment and cleaning up**

Take up liquid spill into inert absorbent material. Clean thoroughly.

**6.4. Reference to other sections**

For disposal see section 13.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

For precautions see section 2.2.

**7.2. Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place.

**7.3. Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Components with workplace control parameters**

Name	CAS No.	Value	Control Parameters	Basis
Glycerol	56-81-5	TWA	10.0 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
		TWA	15.0 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	5.0 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants

## 8.2. Exposure controls

### Appropriate engineering controls

General industrial hygiene practice.

### Personal protective equipment

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 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.

Body protection: Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).  
Control of environmental exposure: Do not let product enter drains.

## **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Physical state: Liquid

Color: No data available

Odor: No data available

Odor threshold: No data available

pH: No data available

Melting point: No data available

Freezing point: No data available

Boiling point: No data available

Flash point: No data available

Evaporation rate: No data available

Decomposition temperature: No data available

Flammability (solid, gas): No data available

Vapor pressure: No data available

Relative vapor density: No data available

Relative density: No data available

Solubility: Water soluble

Viscosity: No data available

Explosive properties: No data available

Oxidizing properties: No data available

### 9.2. Other information

No additional information available

## **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

Stable under recommended storage conditions.

### 10.2. Chemical stability

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

No data available.

**10.4. Conditions to avoid**

No data available.

**10.5. Incompatible materials**

Strong oxidizing agents.

**10.6. Hazardous decomposition products**

No data available.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute toxicity**

LD50 Oral (rat): 12,600 mg/kg

LD50 Dermal (rabbit): >10,000 mg/kg

**Skin corrosion/irritation**

Causes skin irritation.

**Serious eye damage/eye irritation**

Causes eye irritation.

**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.

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

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 identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**

No data available.

**Specific target organ toxicity-single exposure**

No data available.

**Specific target organ toxicity repeated exposure**

No data available.

**Aspiration hazard**

No data available.

**Additional information**

RTECS: MA8050000

Prolonged or repeated exposure may cause nausea, headache, vomiting. To the best of our knowledge the product does not present any particular risk under normal conditions of use. The chemical, physical, and toxicological properties have not been thoroughly investigated.

Kidney - Irregularities - Based on human evidence (glycerol).

Liver - Irregularities - Based on human evidence (sodium azide).

Safety Data Sheet in accordance with Regulation (EC) No. 1907/2006, as amended.

**SECTION 12: Ecological information**

**12.1. Toxicity**

Presents no specific risk for the environment in small amounts.

**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 assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

**12.6 Other adverse effects**

No data available.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

**SECTION 14: Transport information**

**Not dangerous goods in accordance with DOT (US) / ADR / RID / ADNR / IMDG / ICAO / IATA**

**14.1 UN number**

Not regulated.

**14.2 UN proper shipping name**

Not regulated.

**14.3 Transport hazard class(es)**

Not regulated.

**14.4 Packaging group**

Not regulated.

#### 14.5 Environmental hazards

No data available.

#### 14.6 Special precautions for user

No data available.

#### 14.7 Transport in bulk according to Annex II of Marpol73/78 and the IBC Code

No data available.

### **SECTION 15: Regulatory information**

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### **United States Restrictions**

SARA 302 Components: Sodium Azide, CAS No. 26628-22-8.

SARA 313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards: No SARA Hazards.

Massachusetts Right To Know Components: Glycerol, CAS No. 56-81-5. Sodium Azide, CAS No. 26628-22-8.

Pennsylvania Right To Know Components: Glycerol, CAS No. 56-81-5. Sodium Azide, CAS No. 26628-22-8.

New Jersey Right To Know Components: Glycerol, CAS No. 56-81-5. Sodium Azide, CAS No. 26628-22-8.

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

##### **European Union Restrictions**

Act No. 350/2011 Coll., to regulate chemical substances and chemical mixtures and to amend some statutes, as amended.

Implemented regulations to Act No. 350/2011 Coll., as amended The Waste Act as amended. Government Decree No. 361/2007 Coll., to regulate the conditions of occupational health and safety, as amended. Regulation of the European Parliament and the Council (EC) No. 1907/2006 (REACH). Regulation of the European Parliament and the Council (EC) No. 1272/2008 (CLP). Commission Regulation (EU) No. 453/2010. Directives 67/548/EEC as amended and 1999/45/EC as amended.

#### 15.2. Chemical safety assessment

Chemical safety assessment has not been carried out.

### **SECTION 16: Other information**

#### **Hazardous Material Information System (HMIS) Rating**

Health Hazard: 0

Chronic Health Hazard:

Flammability: 0

Physical Hazard: 0

#### **National Fire Protection Association (NFPA) Rating**

Health Hazard: 0

Fire Hazard: 0

Reactivity Hazard: 0

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