

# MATERIAL SAFETY DATA SHEET

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## Section 1. Product and Company Identification

**Product Name:** *TagMaster Site-Directed Mutagenesis Kit*

**Catalog Numbers:** GM7001, GM7002

**Part No.:** TagMaster Enzyme

**Company Name & Address:**

GM Biosciences, Inc  
5350 Partners Ct., Suite C  
Frederick, MD 21703  
USA  
Tel.: 240-595-9177  
Fax.: 301-378-2862

**Information Number:** [Please contact GM Biosciences, Inc or your local distributor.](#)

**Use of the substance/preparation:** Refer to the instruction for proper and intended use. Otherwise, contact supplier for specific applications

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## Section 2. Composition, Information on Ingredients

**Hazardous/Non-hazardous Components**

Chemical Name	CAS-No	Weight %
Glycerol	56-81-5	1-50

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## Section 3. Hazards Identification

**Emergency Overview**

The product contains no substances which at their given concentration, are considered to be hazardous to health  
May be harmful if swallowed  
May cause skin and eye irritation in susceptible persons

**Principle Routes of Exposure/**

**Potential Health effects**

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** No information available

**Ingestion** May be harmful if swallowed

**Specific effects**

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

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## Section 4. First Aid Measures

**Skin contact** Wash off immediately with plenty of water

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes

**Ingestion** Never give anything by mouth to an unconscious person

**Inhalation** Move to fresh air  
**Notes to physician** Treat symptomatically.

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## **Section 5. Fire Fighting Measures**

**Suitable extinguishing media** Dry chemical  
**Special protective equipment for firefighters**  
Wear self-contained breathing apparatus and protective suit

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## **Section 6. Accidental Release Measures**

**Personal precautions** Use personal protective equipment  
**Methods for cleaning up** Soak up with inert absorbent material.

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## **Section 7. Handling and Storage**

**Handling** No special handling advice required  
**Storage** Keep in properly labelled containers

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## **Section 8. Exposure Controls/Personal Protection**

**Occupational exposure controls**  
**Exposure limits**

Chemical Name	OSHA PEL (TWA)	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Glycerol	15 mg/m <sup>3</sup> total dust 5 mg/m <sup>3</sup> respirable fraction	-	10 mg/m <sup>3</sup>	-

**Engineering measures** Ensure adequate ventilation, especially in confined areas  
**Personal protective equipment**  
**Respiratory Protection** In case of insufficient ventilation wear suitable respiratory equipment  
**Hand protection** Protective gloves  
**Eye protection** Safety glasses with side-shields  
**Skin and body protection** Lightweight protective clothing.  
**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice  
**Environmental exposure controls** Prevent product from entering drains.

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## **Section 9. Physical and Chemical Properties**

**Physical state:** Liquid.

**Boiling point/range °C** No data available  
**Melting point/range °C** No data available  
**Flash point °C** No data available  
**Autoignition temperature °C** No data available  
**Oxidizing properties** No information available  
**Water solubility** No data available

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## **Section 10. Stability and Reactivity**

**Stability** Stable under normal conditions.

**Materials to avoid** No information available  
**Hazardous decomposition products** No information available  
**Polymerization** Hazardous polymerisation does not occur.

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## ***Section 11. Toxicological Information***

### **Acute toxicity**

<b>Chemical Name</b>	<b>LD50 (oral, rat/mouse)</b>	<b>LD50 (dermal, rat/rabbit)</b>	<b>LC50 (inhalation, rat/mouse)</b>
Glycerol	12600 mg/kg (Rat)	10 g/kg (Rabbit)	570 mg/m <sup>3</sup> (Rat)

### **Principle Routes of Exposure/ Potential Health effects**

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** No information available

**Ingestion** May be harmful if swallowed.

### **Specific effects (Long Term Effects)**

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

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## ***Section 12. Ecological Information***

**Ecotoxicity effects** No information available.

**Mobility** No information available.

**Biodegradation** No information available.

**Bioaccumulation** No information available

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## ***Section 13. disposal Considerations***

Dispose of in accordance with local regulations

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## ***Section 14. Transport Information***

### **IATA**

**Proper shipping name** Not classified as dangerous in the meaning of transport regulations

**Hazard Class** No information available

**Subsidiary Class** No information available

**Packing group** No information available

**UN-No** No information available

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## ***Section 15. Regulatory Information***

### International Inventories

Chemical Name	TSCA	PICCS	ENCS	DSL	NDSL	AICS
Glycerol	Listed	Listed	Listed	Listed	-	Listed

### U.S. Federal Regulations

**SARA 313** This product is not regulated by SARA.

### Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs.

### WHMIS hazard class:

Non-controlled

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## Section 16. Regulatory Information

### Disclaimer

For R&D use only. Not for drug, household or other uses.

### Notice to reader

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.* THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

# MATERIAL SAFETY DATA SHEET

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## **Section 1. Product and Company Identification**

**Product Name:** *TagMaster Site-Directed Mutagenesis Kit*

**Catalog Numbers:** GM7001, GM7002

**Part No.:** 10x Reaction Buffer

**Company Name & Address:**

GM Biosciences, Inc  
4539 Metropolitan CT.  
Frederick, MD 21704  
USA  
Tel.: 240-595-9177  
Fax.: 301-378-2862

**Information Number:** [Please contact GM Biosciences, Inc or your local distributor.](#)

**Use of the substance/preparation:** Refer to the instruction for proper and intended use. Otherwise, contact supplier for specific applications

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## **Section 2. Composition, Information on Ingredients**

**Hazardous/Non-hazardous Components**

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

---

## **Section 3. Hazards Identification**

**Emergency Overview**

The product contains no substances which at their given concentration, are considered to be hazardous to health

May be harmful if swallowed

May cause skin and eye irritation in susceptible persons

**Principle Routes of Exposure/**

**Potential Health effects**

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** May be harmful by inhalation.

**Ingestion** May be harmful if swallowed

**Specific effects**

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

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## **Section 4. First Aid Measures**

**Skin contact** Wash off immediately with plenty of water. If symptoms persist, call a physician.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

**Ingestion** Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

**Inhalation** Move to fresh air. If symptoms persist, call a physician.

**Notes to physician** Treat symptomatically.

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## ***Section 5. Fire Fighting Measures***

**Suitable extinguishing media** Dry chemical

**Special protective equipment for firefighters**

Wear self-contained breathing apparatus and protective suit

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## ***Section 6. Accidental Release Measures***

**Personal precautions** Use personal protective equipment

**Methods for cleaning up** Soak up with inert absorbent material.

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## ***Section 7. Handling and Storage***

**Handling** No special handling advice required

**Storage** Keep in properly labelled containers

---

## ***Section 8. Exposure Controls/Personal Protection***

**Occupational exposure controls**

**Exposure limits**

**Engineering measures** Ensure adequate ventilation, especially in confined areas

**Personal protective equipment**

**Respiratory Protection** In case of insufficient ventilation wear suitable respiratory equipment

**Hand protection** Protective gloves

**Eye protection** Safety glasses with side-shields

**Skin and body protection** Lightweight protective clothing.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls** Prevent product from entering drains.

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## ***Section 9. Physical and Chemical Properties***

**Physical state:** Liquid.

**Boiling point/range °C** No data available

**Melting point/range °C** No data available

**Flash point °C** No data available

**Autoignition temperature °C** No data available

**Oxidizing properties** No information available

**Water solubility** No data available

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## ***Section 10. Stability and Reactivity***

**Stability** Stable under normal conditions.

**Materials to avoid** No information available

**Hazardous decomposition products** No information available  
**Polymerization** Hazardous polymerisation does not occur.

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## ***Section 11. Toxicological Information***

**Acute toxicity**

**Principle Routes of Exposure/**

**Potential Health effects**

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** May be harmful by inhalation.

**Ingestion** May be harmful if swallowed

**Specific effects (Long Term Effects)**

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

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## ***Section 12. Ecological Information***

**Ecotoxicity effects** No information available.

**Mobility** No information available.

**Biodegradation** No information available.

**Bioaccumulation** No information available

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## ***Section 13. disposal Considerations***

Dispose of in accordance with local regulations

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## ***Section 14. Transport Information***

**IATA**

**Proper shipping name** Not classified as dangerous in the meaning of transport regulations

**Hazard Class** No information available

**Subsidiary Class** No information available

**Packing group** No information available

**UN-No** No information available

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## ***Section 15. Regulatory Information***

**International Inventories**

**U.S. Federal Regulations**

**SARA 313** This product is not regulated by SARA.

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contains HAPs.

**WHMIS hazard class:**

Non-controlled

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## **Section 16. Regulatory Information**

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**Notice to reader**

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# MATERIAL SAFETY DATA SHEET

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## **Section 1. Product and Company Identification**

**Product Name:** *TagMaster Site-Directed Mutagenesis Kit*

**Catalog Numbers:** GM7001, GM7002

**Part No.:** dNTP Mixture

**Company Name & Address:**

GM Biosciences, Inc  
4539 Metropolitan CT.  
Frederick, MD 21704  
USA  
Tel.: 240-595-9177  
Fax.: 301-378-2862

**Information Number:** [Please contact GM Biosciences, Inc or your local distributor.](#)

**Use of the substance/preparation:** Refer to the instruction for proper and intended use. Otherwise, contact supplier for specific applications

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## **Section 2. Composition, Information on Ingredients**

**Hazardous/Non-hazardous Components**

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

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## **Section 3. Hazards Identification**

**Emergency Overview**

The product contains no substances which at their given concentration, are considered to be hazardous to health

May be harmful if swallowed

May cause skin and eye irritation in susceptible persons

**Principle Routes of Exposure/**

**Potential Health effects**

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** No information available

**Ingestion** No information available

**Specific effects**

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

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## **Section 4. First Aid Measures**

**Skin contact** Wash off immediately with plenty of water. If symptoms persist, call a physician.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

If symptoms persist, call a physician.

**Ingestion** Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

**Inhalation** Move to fresh air. If symptoms persist, call a physician.

**Notes to physician** Treat symptomatically.

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## ***Section 5. Fire Fighting Measures***

**Suitable extinguishing media** Dry chemical

**Special protective equipment for firefighters**

Wear self-contained breathing apparatus and protective suit

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## ***Section 6. Accidental Release Measures***

**Personal precautions** Use personal protective equipment

**Methods for cleaning up** Soak up with inert absorbent material.

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## ***Section 7. Handling and Storage***

**Handling** No special handling advice required

**Storage** Keep in properly labelled containers

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## ***Section 8. Exposure Controls/Personal Protection***

**Occupational exposure controls**

**Exposure limits**

**Engineering measures** Ensure adequate ventilation, especially in confined areas

**Personal protective equipment**

**Respiratory Protection** In case of insufficient ventilation wear suitable respiratory equipment

**Hand protection** Protective gloves

**Eye protection** Safety glasses with side-shields

**Skin and body protection** Lightweight protective clothing.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls** Prevent product from entering drains.

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## ***Section 9. Physical and Chemical Properties***

**Physical state:** Liquid.

**Boiling point/range °C** No data available

**Melting point/range °C** No data available

**Flash point °C** No data available

**Autoignition temperature °C** No data available

**Oxidizing properties** No information available

**Water solubility** No data available

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## ***Section 10. Stability and Reactivity***

**Stability** Stable under normal conditions.

**Materials to avoid** No information available  
**Hazardous decomposition products** No information available  
**Polymerization** Hazardous polymerisation does not occur.

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## ***Section 11. Toxicological Information***

### **Acute toxicity**

#### **Principle Routes of Exposure/**

#### **Potential Health effects**

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** No information available

**Ingestion** No information available

#### **Specific effects (Long Term Effects)**

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

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## ***Section 12. Ecological Information***

**Ecotoxicity effects** No information available.

**Mobility** No information available.

**Biodegradation** No information available.

**Bioaccumulation** No information available

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## ***Section 13. disposal Considerations***

Dispose of in accordance with local regulations

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## ***Section 14. Transport Information***

### **IATA**

**Proper shipping name** Not classified as dangerous in the meaning of transport regulations

**Hazard Class** No information available

**Subsidiary Class** No information available

**Packing group** No information available

**UN-No** No information available

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## ***Section 15. Regulatory Information***

### **International Inventories**

#### **U.S. Federal Regulations**

**SARA 313** This product is not regulated by SARA.

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain HAPs.

**WHMIS hazard class:**

Non-controlled

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## ***Section 16. Regulatory Information***

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***Notice to reader***

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# MATERIAL SAFETY DATA SHEET

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## Section 1. Product and Company Identification

**Product Name:** *TagMaster Site-Directed Mutagenesis Kit*

**Catalog Numbers:** GM7001, GM7002

**Part No.:** Control Primer #1 (20µM)

**Company Name & Address:**

GM Biosciences, Inc  
4539 Metropolitan CT.  
Frederick, MD 21704  
USA  
Tel.: 240-595-9177  
Fax.: 301-378-2862

**Information Number:** [Please contact GM Biosciences, Inc or your local distributor.](#)

**Use of the substance/preparation:** Refer to the instruction for proper and intended use. Otherwise, contact supplier for specific applications

---

## Section 2. Composition, Information on Ingredients

### Hazardous/Non-hazardous Components

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

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## Section 3. Hazards Identification

### Emergency Overview

The product contains no substances which at their given concentration, are considered to be hazardous to health

May be harmful if swallowed

May cause skin and eye irritation in susceptible persons

### Principle Routes of Exposure/

#### Potential Health effects

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** May be harmful by inhalation.

**Ingestion** May be harmful if swallowed.

#### Specific effects

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

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## Section 4. First Aid Measures

**Skin contact** Wash off immediately with plenty of water. If symptoms persist, call a physician.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

**Ingestion** Never give anything by mouth to an unconscious person. If symptoms persist, call a

physician.

**Inhalation** Move to fresh air. If symptoms persist, call a physician.

**Notes to physician** Treat symptomatically.

---

## ***Section 5. Fire Fighting Measures***

**Suitable extinguishing media** Dry chemical

**Special protective equipment for firefighters**

Wear self-contained breathing apparatus and protective suit

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## ***Section 6. Accidental Release Measures***

**Personal precautions** Use personal protective equipment

**Methods for cleaning up** Soak up with inert absorbent material.

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## ***Section 7. Handling and Storage***

**Handling** No special handling advice required

**Storage** Keep in properly labelled containers

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## ***Section 8. Exposure Controls/Personal Protection***

**Occupational exposure controls**

**Exposure limits**

**Engineering measures** Ensure adequate ventilation, especially in confined areas

**Personal protective equipment**

**Respiratory Protection** In case of insufficient ventilation wear suitable respiratory equipment

**Hand protection** Protective gloves

**Eye protection** Safety glasses with side-shields

**Skin and body protection** Lightweight protective clothing.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls** Prevent product from entering drains.

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## ***Section 9. Physical and Chemical Properties***

**Physical state:** Liquid.

**Boiling point/range °C** No data available

**Melting point/range °C** No data available

**Flash point °C** No data available

**Autoignition temperature °C** No data available

**Oxidizing properties** No information available

**Water solubility** No data available

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## ***Section 10. Stability and Reactivity***

**Stability** Stable under normal conditions.

**Materials to avoid** No information available

**Hazardous decomposition products** No information available

**Polymerization** Hazardous polymerisation does not occur.

---

## ***Section 11. Toxicological Information***

### **Acute toxicity**

#### **Principle Routes of Exposure/**

#### **Potential Health effects**

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** May be harmful by inhalation.

**Ingestion** May be harmful if swallowed.

#### **Specific effects (Long Term Effects)**

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

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## ***Section 12. Ecological Information***

**Ecotoxicity effects** No information available.

**Mobility** No information available.

**Biodegradation** Inherently biodegradable.

**Bioaccumulation** Does not bioaccumulate.

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## ***Section 13. disposal Considerations***

Dispose of in accordance with local regulations

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## ***Section 14. Transport Information***

### **IATA**

**Proper shipping name** Not classified as dangerous in the meaning of transport regulations

**Hazard Class** No information available

**Subsidiary Class** No information available

**Packing group** No information available

**UN-No** No information available

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## ***Section 15. Regulatory Information***

### **International Inventories**

#### **U.S. Federal Regulations**

**SARA 313** This product is not regulated by SARA.

#### **Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contains HAPs.

**WHMIS hazard class:**  
Non-controlled

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## ***Section 16. Regulatory Information***

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# MATERIAL SAFETY DATA SHEET

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## Section 1. Product and Company Identification

**Product Name:** *TagMaster Site-Directed Mutagenesis Kit*

**Catalog Numbers:** GM7001, GM7002

**Part No.:** Control Primer #2 (20µM)

**Company Name & Address:**

GM Biosciences, Inc  
4539 Metropolitan CT.  
Frederick, MD 21704  
USA  
Tel.: 240-595-9177  
Fax.: 301-378-2862

**Information Number:** [Please contact GM Biosciences, Inc or your local distributor.](#)

**Use of the substance/preparation:** Refer to the instruction for proper and intended use. Otherwise, contact supplier for specific applications

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## Section 2. Composition, Information on Ingredients

**Hazardous/Non-hazardous Components**

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

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## Section 3. Hazards Identification

**Emergency Overview**

The product contains no substances which at their given concentration, are considered to be hazardous to health

May be harmful if swallowed

May cause skin and eye irritation in susceptible persons

**Principle Routes of Exposure/**

**Potential Health effects**

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** May be harmful by inhalation.

**Ingestion** May be harmful if swallowed.

**Specific effects**

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

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## Section 4. First Aid Measures

**Skin contact** Wash off immediately with plenty of water. If symptoms persist, call a physician.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

**Ingestion** Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

**Inhalation** Move to fresh air. If symptoms persist, call a physician.

**Notes to physician** Treat symptomatically.

---

## ***Section 5. Fire Fighting Measures***

**Suitable extinguishing media** Dry chemical

**Special protective equipment for firefighters**

Wear self-contained breathing apparatus and protective suit

---

## ***Section 6. Accidental Release Measures***

**Personal precautions** Use personal protective equipment

**Methods for cleaning up** Soak up with inert absorbent material.

---

## ***Section 7. Handling and Storage***

**Handling** No special handling advice required

**Storage** Keep in properly labelled containers

---

## ***Section 8. Exposure Controls/Personal Protection***

**Occupational exposure controls**

**Exposure limits**

**Engineering measures** Ensure adequate ventilation, especially in confined areas

**Personal protective equipment**

**Respiratory Protection** In case of insufficient ventilation wear suitable respiratory equipment

**Hand protection** Protective gloves

**Eye protection** Safety glasses with side-shields

**Skin and body protection** Lightweight protective clothing.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls** Prevent product from entering drains.

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## ***Section 9. Physical and Chemical Properties***

**Physical state:** Liquid.

**Boiling point/range °C** No data available

**Melting point/range °C** No data available

**Flash point °C** No data available

**Autoignition temperature °C** No data available

**Oxidizing properties** No information available

**Water solubility** No data available

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## ***Section 10. Stability and Reactivity***

**Stability** Stable under normal conditions.

**Materials to avoid** No information available

**Hazardous decomposition products** No information available

**Polymerization** Hazardous polymerisation does not occur.

---

## ***Section 11. Toxicological Information***

### **Acute toxicity**

#### **Principle Routes of Exposure/**

#### **Potential Health effects**

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** May be harmful by inhalation.

**Ingestion** May be harmful if swallowed.

#### **Specific effects (Long Term Effects)**

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

---

## ***Section 12. Ecological Information***

**Ecotoxicity effects** No information available.

**Mobility** No information available.

**Biodegradation** Inherently biodegradable.

**Bioaccumulation** Does not bioaccumulate.

---

## ***Section 13. disposal Considerations***

Dispose of in accordance with local regulations

---

## ***Section 14. Transport Information***

### **IATA**

**Proper shipping name** Not classified as dangerous in the meaning of transport regulations

**Hazard Class** No information available

**Subsidiary Class** No information available

**Packing group** No information available

**UN-No** No information available

---

## ***Section 15. Regulatory Information***

### **International Inventories**

#### **U.S. Federal Regulations**

**SARA 313** This product is not regulated by SARA.

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contains HAPs.

**WHMIS hazard class:**

Non-controlled

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## ***Section 16. Regulatory Information***

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# MATERIAL SAFETY DATA SHEET

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## Section 1. Product and Company Identification

**Product Name:** *TagMaster Site-Directed Mutagenesis Kit*

**Catalog Numbers:** GM7001, GM7002

**Part No.:** Control Primer #3 (20µM)

**Company Name & Address:**

GM Biosciences, Inc  
4539 Metropolitan CT.  
Frederick, MD 21704  
USA  
Tel.: 240-595-9177  
Fax.: 301-378-2862

**Information Number:** [Please contact GM Biosciences, Inc or your local distributor.](#)

**Use of the substance/preparation:** Refer to the instruction for proper and intended use. Otherwise, contact supplier for specific applications

---

## Section 2. Composition, Information on Ingredients

### Hazardous/Non-hazardous Components

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

---

## Section 3. Hazards Identification

### Emergency Overview

The product contains no substances which at their given concentration, are considered to be hazardous to health

May be harmful if swallowed

May cause skin and eye irritation in susceptible persons

### Principle Routes of Exposure/

#### Potential Health effects

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** May be harmful by inhalation.

**Ingestion** May be harmful if swallowed.

#### Specific effects

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

---

## Section 4. First Aid Measures

**Skin contact** Wash off immediately with plenty of water. If symptoms persist, call a physician.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

**Ingestion** Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

**Inhalation** Move to fresh air. If symptoms persist, call a physician.

**Notes to physician** Treat symptomatically.

---

## ***Section 5. Fire Fighting Measures***

**Suitable extinguishing media** Dry chemical

**Special protective equipment for firefighters**

Wear self-contained breathing apparatus and protective suit

---

## ***Section 6. Accidental Release Measures***

**Personal precautions** Use personal protective equipment

**Methods for cleaning up** Soak up with inert absorbent material.

---

## ***Section 7. Handling and Storage***

**Handling** No special handling advice required

**Storage** Keep in properly labelled containers

---

## ***Section 8. Exposure Controls/Personal Protection***

**Occupational exposure controls**

**Exposure limits**

**Engineering measures** Ensure adequate ventilation, especially in confined areas

**Personal protective equipment**

**Respiratory Protection** In case of insufficient ventilation wear suitable respiratory equipment

**Hand protection** Protective gloves

**Eye protection** Safety glasses with side-shields

**Skin and body protection** Lightweight protective clothing.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls** Prevent product from entering drains.

---

## ***Section 9. Physical and Chemical Properties***

**Physical state:** Liquid.

**Boiling point/range °C** No data available

**Melting point/range °C** No data available

**Flash point °C** No data available

**Autoignition temperature °C** No data available

**Oxidizing properties** No information available

**Water solubility** No data available

---

## ***Section 10. Stability and Reactivity***

**Stability** Stable under normal conditions.

**Materials to avoid** No information available

**Hazardous decomposition products** No information available

**Polymerization** Hazardous polymerisation does not occur.

---

## ***Section 11. Toxicological Information***

### **Acute toxicity**

#### **Principle Routes of Exposure/**

#### **Potential Health effects**

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** May be harmful by inhalation.

**Ingestion** May be harmful if swallowed.

#### **Specific effects (Long Term Effects)**

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

---

## ***Section 12. Ecological Information***

**Ecotoxicity effects** No information available.

**Mobility** No information available.

**Biodegradation** Inherently biodegradable.

**Bioaccumulation** Does not bioaccumulate.

---

## ***Section 13. disposal Considerations***

Dispose of in accordance with local regulations

---

## ***Section 14. Transport Information***

### **IATA**

**Proper shipping name** Not classified as dangerous in the meaning of transport regulations

**Hazard Class** No information available

**Subsidiary Class** No information available

**Packing group** No information available

**UN-No** No information available

---

## ***Section 15. Regulatory Information***

### **International Inventories**

#### **U.S. Federal Regulations**

**SARA 313** This product is not regulated by SARA.

#### **Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contains HAPs.

**WHMIS hazard class:**

Non-controlled

---

## ***Section 16. Regulatory Information***

### **Disclaimer**

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### **Notice to reader**

***To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*** THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.



# MATERIAL SAFETY DATA SHEET

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## Section 1. Product and Company Identification

**Product Name:** *TagMaster Site-Directed Mutagenesis Kit*

**Catalog Numbers:** GM7001, GM7002

**Part No.:** Control Primer #4 (20µM)

**Company Name & Address:**

GM Biosciences, Inc  
4539 Metropolitan CT.  
Frederick, MD 21704  
USA  
Tel.: 240-595-9177  
Fax.: 301-378-2862

**Information Number:** [Please contact GM Biosciences, Inc or your local distributor.](#)

**Use of the substance/preparation:** Refer to the instruction for proper and intended use. Otherwise, contact supplier for specific applications

---

## Section 2. Composition, Information on Ingredients

### Hazardous/Non-hazardous Components

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

---

## Section 3. Hazards Identification

### Emergency Overview

The product contains no substances which at their given concentration, are considered to be hazardous to health

May be harmful if swallowed

May cause skin and eye irritation in susceptible persons

### Principle Routes of Exposure/

#### Potential Health effects

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** May be harmful by inhalation.

**Ingestion** May be harmful if swallowed.

#### Specific effects

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

---

## Section 4. First Aid Measures

**Skin contact** Wash off immediately with plenty of water. If symptoms persist, call a physician.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

**Ingestion** Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

**Inhalation** Move to fresh air. If symptoms persist, call a physician.

**Notes to physician** Treat symptomatically.

---

## ***Section 5. Fire Fighting Measures***

**Suitable extinguishing media** Dry chemical

**Special protective equipment for firefighters**

Wear self-contained breathing apparatus and protective suit

---

## ***Section 6. Accidental Release Measures***

**Personal precautions** Use personal protective equipment

**Methods for cleaning up** Soak up with inert absorbent material.

---

## ***Section 7. Handling and Storage***

**Handling** No special handling advice required

**Storage** Keep in properly labelled containers

---

## ***Section 8. Exposure Controls/Personal Protection***

**Occupational exposure controls**

**Exposure limits**

**Engineering measures** Ensure adequate ventilation, especially in confined areas

**Personal protective equipment**

**Respiratory Protection** In case of insufficient ventilation wear suitable respiratory equipment

**Hand protection** Protective gloves

**Eye protection** Safety glasses with side-shields

**Skin and body protection** Lightweight protective clothing.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls** Prevent product from entering drains.

---

## ***Section 9. Physical and Chemical Properties***

**Physical state:** Liquid.

**Boiling point/range °C** No data available

**Melting point/range °C** No data available

**Flash point °C** No data available

**Autoignition temperature °C** No data available

**Oxidizing properties** No information available

**Water solubility** No data available

---

## ***Section 10. Stability and Reactivity***

**Stability** Stable under normal conditions.

**Materials to avoid** No information available

**Hazardous decomposition products** No information available

**Polymerization** Hazardous polymerisation does not occur.

---

## ***Section 11. Toxicological Information***

### **Acute toxicity**

#### **Principle Routes of Exposure/**

#### **Potential Health effects**

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** May be harmful by inhalation.

**Ingestion** May be harmful if swallowed.

#### **Specific effects (Long Term Effects)**

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

---

## ***Section 12. Ecological Information***

**Ecotoxicity effects** No information available.

**Mobility** No information available.

**Biodegradation** Inherently biodegradable.

**Bioaccumulation** Does not bioaccumulate.

---

## ***Section 13. disposal Considerations***

Dispose of in accordance with local regulations

---

## ***Section 14. Transport Information***

### **IATA**

**Proper shipping name** Not classified as dangerous in the meaning of transport regulations

**Hazard Class** No information available

**Subsidiary Class** No information available

**Packing group** No information available

**UN-No** No information available

---

## ***Section 15. Regulatory Information***

### **International Inventories**

#### **U.S. Federal Regulations**

**SARA 313** This product is not regulated by SARA.

#### **Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contains HAPs.

**WHMIS hazard class:**

Non-controlled

---

## ***Section 16. Regulatory Information***

### **Disclaimer**

For R&D use only. Not for drug, household or other uses.

### **Notice to reader**

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# MATERIAL SAFETY DATA SHEET

---

## Section 1. Product and Company Identification

**Product Name:** *TagMaster Site-Directed Mutagenesis Kit*

**Catalog Numbers:** GM7001, GM7002

**Part No.:** pUC19 Control Plasmid (50ng/μl)

**Company Name & Address:**

GM Biosciences, Inc  
4539 Metropolitan CT.  
Frederick, MD 21704  
USA  
Tel.: 240-595-9177  
Fax.: 301-378-2862

**Information Number:** [Please contact GM Biosciences, Inc or your local distributor.](#)

**Use of the substance/preparation:** Refer to the instruction for proper and intended use. Otherwise, contact supplier for specific applications

---

## Section 2. Composition, Information on Ingredients

### Hazardous/Non-hazardous Components

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

---

## Section 3. Hazards Identification

### Emergency Overview

The product contains no substances which at their given concentration, are considered to be hazardous to health

May be harmful if swallowed

May cause skin and eye irritation in susceptible persons

### Principle Routes of Exposure/

#### Potential Health effects

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** May be harmful by inhalation.

**Ingestion** May be harmful if swallowed.

#### Specific effects

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

---

## Section 4. First Aid Measures

**Skin contact** Wash off immediately with plenty of water. If symptoms persist, call a physician.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

**Ingestion** Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

**Inhalation** Move to fresh air. If symptoms persist, call a physician.

**Notes to physician** Treat symptomatically.

---

## ***Section 5. Fire Fighting Measures***

**Suitable extinguishing media** Dry chemical

**Special protective equipment for firefighters**

Wear self-contained breathing apparatus and protective suit

---

## ***Section 6. Accidental Release Measures***

**Personal precautions** Use personal protective equipment

**Methods for cleaning up** Soak up with inert absorbent material.

---

## ***Section 7. Handling and Storage***

**Handling** No special handling advice required

**Storage** Keep in properly labelled containers

---

## ***Section 8. Exposure Controls/Personal Protection***

**Occupational exposure controls**

**Exposure limits**

**Engineering measures** Ensure adequate ventilation, especially in confined areas

**Personal protective equipment**

**Respiratory Protection** In case of insufficient ventilation wear suitable respiratory equipment

**Hand protection** Protective gloves

**Eye protection** Safety glasses with side-shields

**Skin and body protection** Lightweight protective clothing.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls** Prevent product from entering drains.

---

## ***Section 9. Physical and Chemical Properties***

**Physical state:** Liquid.

**Boiling point/range °C** No data available

**Melting point/range °C** No data available

**Flash point °C** No data available

**Autoignition temperature °C** No data available

**Oxidizing properties** No information available

**Water solubility** No data available

---

## ***Section 10. Stability and Reactivity***

**Stability** Stable under normal conditions.

**Materials to avoid** No information available

**Hazardous decomposition products** No information available

**Polymerization** Hazardous polymerisation does not occur.

---

## ***Section 11. Toxicological Information***

### **Acute toxicity**

#### **Principle Routes of Exposure/**

#### **Potential Health effects**

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** May be harmful by inhalation.

**Ingestion** May be harmful if swallowed.

#### **Specific effects (Long Term Effects)**

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

---

## ***Section 12. Ecological Information***

**Ecotoxicity effects** No information available.

**Mobility** No information available.

**Biodegradation** Inherently biodegradable.

**Bioaccumulation** Does not bioaccumulate.

---

## ***Section 13. disposal Considerations***

Dispose of in accordance with local regulations

---

## ***Section 14. Transport Information***

### **IATA**

**Proper shipping name** Not classified as dangerous in the meaning of transport regulations

**Hazard Class** No information available

**Subsidiary Class** No information available

**Packing group** No information available

**UN-No** No information available

---

## ***Section 15. Regulatory Information***

### **International Inventories**

#### **U.S. Federal Regulations**

**SARA 313** This product is not regulated by SARA.

#### **Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contains HAPs.

**WHMIS hazard class:**

Non-controlled

---

## ***Section 16. Regulatory Information***

### **Disclaimer**

For R&D use only. Not for drug, household or other uses.

### **Notice to reader**

***To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*** THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.



# MATERIAL SAFETY DATA SHEET

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## Section 1. Product and Company Identification

**Product Name:** *TagMaster Site-Directed Mutagenesis Kit*

**Catalog Numbers:** GM7001, GM7002

**Part No.:** TagMaster Competent Cell

**Company Name & Address:**

GM Biosciences, Inc  
4539 Metropolitan CT.  
Frederick, MD 21704  
USA  
Tel.: 240-595-9177  
Fax.: 301-378-2862

**Information Number:** [Please contact GM Biosciences, Inc or your local distributor.](#)

**Use of the substance/preparation:** Refer to the instruction for proper and intended use. Otherwise, contact supplier for specific applications

---

## Section 2. Composition, Information on Ingredients

**Hazardous/Non-hazardous Components**

Chemical Name	CAS-No	Weight %
GLYCEROL	56-81-5	5-30
DIMETHYL SULFOXIDE	67-68-5	1-20

---

## Section 3. Hazards Identification

**Emergency Overview**

Contains material which may cause damage to the following organs: blood, kidneys, liver, gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

**Principle Routes of Exposure/**

**Potential Health effects**

**Eyes** May cause eye irritation tearing and reddening

**Skin** May Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage. Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause minor systemic damage.

**Inhalation** Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.

**Ingestion** Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.

**Specific effects**

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

---

## Section 4. First Aid Measures

**Skin contact** Wash with soap and water. Get medical attention if irritation develops or persists.  
**Eye contact** Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.  
**Ingestion** Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if adverse health effects persist or are severe.  
**Inhalation** Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.  
**Notes to physician** Treat symptomatically.

---

## **Section 5. Fire Fighting Measures**

**Flammability of the product** Non-flammable.  
**Suitable extinguishing media** Use an extinguishing agent suitable for the surrounding fire.  
**Special protective equipment for firefighters**  
Wear self-contained breathing apparatus and protective suit

---

## **Section 6. Accidental Release Measures**

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

---

## **Section 7. Handling and Storage**

Storage of some materials is regulated by federal, state, and/or local laws.  
Storage Pressure: Ambient  
Handling Procedures:  
Harmful or irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Keep closed or covered when not in use.  
Storage Procedures:  
Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Suitable for most general chemical storage areas.

---

## **Section 8. Exposure Controls/Personal Protection**

Exposure Limits:

Component	OSHA PEL(ppm)	AGCIH TWA(ppm)
DIMETHYL SULFOXIDE	Not established.	Not established.
GLYCEROL	15	10 MG/M3

### **Engineering Controls:**

Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Personal Protective Equipment:

**Eye:**

An eye wash station must be available where this product is used. Wear chemically resistant safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Do not wear contact lenses. Have an eye wash station available.

**Skin:**

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Have a safety shower available.

**Respiratory:**

Use supplied-air respiratory equipment as required. NIOSH approved air purifying respirator with dust/mist filter.

---

## **Section 9. Physical and Chemical Properties**

Physical state: Liquid.

**Boiling point/range** Lowest known value: 100°C (212°F) (Water). Weighted average: 122.01°C (251.6°F)

**Melting point/range** May start to solidify at the following temperature: 19.8°C (67.6°F) This is based on data for the following ingredient: Glycerol. Weighted average: 3.02°C (37.4°F)

**Flash point °C** No data available

**Autoignition temperature °C** No data available

**Oxidizing properties** No information available

**Water solubility** No data available

---

## **Section 10. Stability and Reactivity**

**Stability** Stable under normal conditions.

**Materials to avoid** Strong oxidizing agents. Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition. Strong alkalis. Temperatures above flash point in combination with sparks, open flames, or other sources of ignition.

**Hazardous decomposition products** Carbon monoxide. Carbon dioxide. Sulfur containing gases.

**Polymerization** Hazardous polymerisation does not occur.

---

## **Section 11. Toxicological Information**

### **Acute toxicity**

Chemical Name	LD50 (oral, rat/mouse)
Glycerol	12600 mg/kg (Rat)
Dimethyl sulfoxide	14500mg/kg (Rat)

### **Principle Routes of Exposure/**

### **Potential Health effects**

**Eyes** May cause eye irritation tearing and reddening

**Skin** May Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage. Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause minor systemic damage.

**Inhalation** Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.

**Ingestion** Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.

**Specific effects (Long Term Effects)**

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

---

## ***Section 12. Ecological Information***

**Ecotoxicity effects** No information available.

**Mobility** No information available.

**Biodegradation** Biodegrades quickly.

**Bioaccumulation** No information available

---

## ***Section 13. disposal Considerations***

Regulatory Information:

Not applicable.

Disposal Method:

Clean up and dispose of waste in accordance with all federal, state, and local environmental regulations. Dispose of by incineration following Federal, State, Local, or Provincial regulations.

---

## ***Section 14. Transport Information***

Regulatory information

DOT / IMDG / IATA : Not regulated.

---

## ***Section 15. Regulatory Information***

UNITED STATES:

TSCA:

This product is solely for research and development purposes only and may not be used, processed or distributed for a commercial purpose. It may only be handled by technically qualified individuals.

Prop 65 Listed Chemicals: PROP 65 PERCENT

No Prop 65 Chemicals.

No 313 Chemicals

CANADA:

DSL/NDSL:

Not determined.

COMPONENT	WHMIS Classification
DIMETHYL SULFOXIDE	D2B
GLYCEROL	D2B

EUROPEAN UNION:

PRODUCT RISK PHRASES: None assigned.

PRODUCT SAFETY PHRASES: None assigned.

PRODUCT CLASSIFICATION: None; Aucun; Geen; Keine; Nessuno; Ninguno/a

Component	EINECS Number
DIMETHYL SULFOXIDE	200-664-3
GLYCEROL	200-289-5

---

## **Section 16. Regulatory Information**

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# MATERIAL SAFETY DATA SHEET

---

## Section 1. Product and Company Identification

**Product Name:** *TagMaster Site-Directed Mutagenesis Kit*

**Catalog Numbers:** GM7001, GM7002

**Part No.:** 50x TagMaster Supplement

**Company Name & Address:**

GM Biosciences, Inc  
4539 Metropolitan CT.  
Frederick, MD 21704  
USA  
Tel.: 240-595-9177  
Fax.: 301-378-2862

**Information Number:** [Please contact GM Biosciences, Inc or your local distributor.](#)

**Use of the substance/preparation:** Refer to the instruction for proper and intended use. Otherwise, contact supplier for specific applications

---

## Section 2. Composition, Information on Ingredients

**Hazardous/Non-hazardous Components**

Chemical Name	CAS-No	Weight %
Component 1	-	1-10
Component 2	-	0.01-1

---

## Section 3. Hazards Identification

**Emergency Overview**

The product contains no substances which at their given concentration, are considered to be hazardous to health

May be harmful if swallowed

May cause skin and eye irritation in susceptible persons

**Principle Routes of Exposure/**

**Potential Health effects**

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** May be harmful by inhalation.

**Ingestion** May be harmful if swallowed

**Specific effects**

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

---

## Section 4. First Aid Measures

**Skin contact** Wash off immediately with plenty of water. If symptoms persist, call a physician.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

**Ingestion** Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

**Inhalation** Move to fresh air. If symptoms persist, call a physician.

**Notes to physician** Treat symptomatically.

---

## ***Section 5. Fire Fighting Measures***

**Suitable extinguishing media** Dry chemical

**Special protective equipment for firefighters**

Wear self-contained breathing apparatus and protective suit

---

## ***Section 6. Accidental Release Measures***

**Personal precautions** Use personal protective equipment

**Methods for cleaning up** Soak up with inert absorbent material.

---

## ***Section 7. Handling and Storage***

**Handling** No special handling advice required

**Storage** Keep in properly labelled containers

---

## ***Section 8. Exposure Controls/Personal Protection***

**Occupational exposure controls**

**Exposure limits**

**Engineering measures** Ensure adequate ventilation, especially in confined areas

**Personal protective equipment**

**Respiratory Protection** In case of insufficient ventilation wear suitable respiratory equipment

**Hand protection** Protective gloves

**Eye protection** Safety glasses with side-shields

**Skin and body protection** Lightweight protective clothing.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls** Prevent product from entering drains.

---

## ***Section 9. Physical and Chemical Properties***

**Physical state:** Liquid.

**Boiling point/range °C** No data available

**Melting point/range °C** No data available

**Flash point °C** No data available

**Autoignition temperature °C** No data available

**Oxidizing properties** No information available

**Water solubility** No data available

---

## ***Section 10. Stability and Reactivity***

**Stability** Stable under normal conditions.

**Materials to avoid** No information available

**Hazardous decomposition products** No information available  
**Polymerization** Hazardous polymerisation does not occur.

---

## ***Section 11. Toxicological Information***

### **Acute toxicity**

#### **Principle Routes of Exposure/**

#### **Potential Health effects**

**Eyes** May cause eye irritation with susceptible persons.

**Skin** May cause skin irritation in susceptible persons.

**Inhalation** May be harmful by inhalation.

**Ingestion** May be harmful if swallowed

#### **Specific effects (Long Term Effects)**

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

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## ***Section 12. Ecological Information***

**Ecotoxicity effects** No information available.

**Mobility** No information available.

**Biodegradation** No information available.

**Bioaccumulation** No information available

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## ***Section 13. disposal Considerations***

Dispose of in accordance with local regulations

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## ***Section 14. Transport Information***

### **IATA**

**Proper shipping name** Not classified as dangerous in the meaning of transport regulations

**Hazard Class** No information available

**Subsidiary Class** No information available

**Packing group** No information available

**UN-No** No information available

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## ***Section 15. Regulatory Information***

### **International Inventories**

#### **U.S. Federal Regulations**

**SARA 313** This product is not regulated by SARA.

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**



This product does not contains HAPs.

**WHMIS hazard class:**

Non-controlled

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## **Section 16. Regulatory Information**

**Disclaimer**

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**Notice to reader**

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# MATERIAL SAFETY DATA SHEET

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## Section 1. Product and Company Identification

**Product Name:** *TagMaster Site-Directed Mutagenesis Kit*

**Catalog Numbers:** GM7001, GM7002

**Part No.:** MgSO4 (25mM)

**Company Name & Address:**

GM Biosciences, Inc  
4539 Metropolitan CT.  
Frederick, MD 21704  
USA  
Tel.: 240-595-9177  
Fax.: 301-378-2862

**Information Number:** [Please contact GM Biosciences, Inc or your local distributor.](#)

**Use of the substance/preparation:** Refer to the instruction for proper and intended use. Otherwise, contact supplier for specific applications

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## Section 2. Composition, Information on Ingredients

### Hazardous/Non-hazardous Components

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

Magnesium sulphate	Concentration
CAS-No. 7487-88-9	<1%

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## Section 3. Hazards Identification

### Emergency Overview

The product contains no substances which at their given concentration, are considered to be hazardous to health  
May be harmful if swallowed  
May cause skin and eye irritation in susceptible persons

### Principle Routes of Exposure/

#### Potential Health effects

**Eyes** May cause eye irritation.

**Skin** May cause skin irritation.

**Inhalation** May be harmful by inhalation.

**Ingestion** May be harmful if swallowed.

#### Specific effects

**Carcinogenic effects** No information available

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

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## Section 4. First Aid Measures

**Skin contact** Wash off with soap and plenty of water.

**Eye contact** Rinse immediately with plenty of water.

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

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

**Notes to physician** Treat symptomatically.

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## ***Section 5. Fire Fighting Measures***

### **Conditions of flammability**

Not flammable or combustible.

### **Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### **Special protective equipment for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

### **Hazardous combustion products**

Hazardous decomposition products formed under fire conditions. - Sulphur oxides, Magnesium oxide

### **Further information**

The product itself does not burn.

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## ***Section 6. Accidental Release Measures***

**Personal precautions** Avoid breathing vapors, mist or gas.

**Methods for cleaning up** Keep in suitable, closed containers for disposal.

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## ***Section 7. Handling and Storage***

**Handling** No special handling advice required

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

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## ***Section 8. Exposure Controls/Personal Protection***

Contains no substances with occupational exposure limit values.

### **Personal protective equipment**

#### **Respiratory protection**

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).

#### **Hand 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.

#### **Eye protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### **Skin and 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.

#### **Hygiene measures**

General industrial hygiene practice.

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## ***Section 9. Physical and Chemical Properties***

**Physical state:** Liquid.

**Boiling point/range °C** No data available

**Melting point/range °C** No data available

**Flash point °C** No data available

**Autoignition temperature °C** No data available

**Oxidizing properties** No information available

**Water solubility** No data available

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## ***Section 10. Stability and Reactivity***

**Stability** Stable under normal conditions.

**Materials to avoid** Strong oxidizing agents

**Hazardous decomposition products** Hazardous decomposition products formed under fire conditions. - Sulphur oxides, Magnesium oxide

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## ***Section 11. Toxicological Information***

**Acute toxicity**

**Principle Routes of Exposure/**

**Potential Health effects**

**Eyes** May cause eye irritation.

**Skin** May cause skin irritation.

**Inhalation** May be harmful by inhalation.

**Ingestion** May be harmful if swallowed.

**Specific effects (Long Term Effects)**

**Carcinogenic effects** 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.

**Mutagenic effects** No information available

**Reproductive toxicity** No information available

**Sensitization** No information available

**Target Organ Effects** No information available

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## ***Section 12. Ecological Information***

**Ecotoxicity effects** No information available.

**Mobility** No information available.

**Biodegradation** No information available.

**Bioaccumulation** No information available

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## ***Section 13. disposal Considerations***

Dispose of in accordance with local regulations

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## ***Section 14. Transport Information***

IATA

**Proper shipping name** Not classified as dangerous in the meaning of transport regulations

**Hazard Class** No information available

**Subsidiary Class** No information available

**Packing group** No information available

**UN-No** No information available

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## **Section 15. Regulatory Information**

### **OSHA Hazards**

Target Organ Effect

### **SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### **SARA 313 Components**

SARA 313: 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**

Chronic Health Hazard

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## **Section 16. Regulatory Information**

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