

## MSDS COVER SHEET

<b>GM 6021</b>	<b><i>OneMinute</i><sup>®</sup> WB Stripping Enhancing Buffer</b> Component: Buffer A, 25 x Supplement Buffer B, <i>OneMinute</i> <sup>®</sup> WB Stripping Enhancing Buffer
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# MATERIAL SAFETY DATA SHEET

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## Section 1. Chemical Product and Company Identification

**Product Name:** Buffer A, 25 x Supplement

**Catalog Numbers:** GM6021

**Company Name & Address:**

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

**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

### Description

Water solutions of components listed.  
Volume of each product package varies: 2-50 ml.

### Components in Water Reagent

### Concentration, %

Component 1	0.01-2
Component 2	0.01-5
Component 3	0.01-15

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## Section 3. Hazards Identification

Risk advice to man and the environment:

Causes burns

The toxic details of this product have not been thoroughly investigated.

Target Organs: Respiratory system, eyes and skin.

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract.

Corrosive to skin. Extent of damage to skin depends upon length of exposure.

Causes burns to mouth, throat, and stomach. Could be fatal if swallowed.

Eye contact can cause corneal damage or blindness

Corrosive to lungs. Causes irritation to gastro-intestinal or respiratory tract.

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## Section 4. First Aid Measures

**Notice to Reader** Get immediate medical attention.

### Inhalation Exposure

If inhaled, remove to fresh air. If breathing becomes difficult, Get medical attention.

### Ingestion Exposure

If swallowed, wash out mouth with water provided person is conscious. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

### Skin Exposure

In case of skin contact, immediately flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

### Eye Exposure

In case of contact with eyes, immediately flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Get medical attention.

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## Section 5. Fire Fighting Measures

**Flash Points** N/A

**Autoignition Temp** N/A

**Flammability** N/A

**Extinguishing Media**

Suitable: For small (incipient) fires, use media such as foam, dry chemical, or carbon dioxide. For large fires, use media such as foam, dry chemical, carbon dioxide or water.

**Fire Fighting**

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Methods of fire Fighting: for small (incipient) fire flammable liquid fires. For large fires, fixed fire suppression system, such as a sprinkler system, should be capable of extinguishing a flammable liquid fire.

During a fire, irritating and highly toxic gasses may occur.

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

**Personal Precautions**

Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

**Environmental Precautions and Clean-up Methods**

Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material and place in closed containers for disposal. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

**Small Spill and Leak**

Dilute with water and mop up or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

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

**Handling**

Do not get in eyes, on skin, on clothing. Do not breathe vapor. Wash thoroughly after handling.

**Storage**

Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 4C. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

**Intended Use**

Refer to the instruction for proper and intended use. Otherwise, contact supplier for specific applications.

**Special requirements**

May develop pressure. Open carefully. Use original container.

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

**Engineering Controls**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Safety shower and eye bath.

**Personal Protective Equipment**

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as

NIOSH (US) or CEN (EU).

#### **Hand protection**

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves.

#### **Eye protection**

Tightly fitting safety goggles. Faceshield (8-inch minimum).

#### **Skin and body protection**

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

#### **Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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

<b>Physical state:</b>	Liquid.
<b>Color:</b>	Colorless.
<b>Odor:</b>	N/A.
<b>Taste:</b>	N/A.
<b>pH:</b>	Acidic.
<b>Boiling Point:</b>	N/A
<b>Freezing Point:</b>	N/A
<b>Critical Temp:</b>	N/A
<b>Vapor pressure:</b>	N/A
<b>Vapor density:</b>	N/A.
<b>Evaporation Rate:</b>	N/A.
<b>Viscosity:</b>	N/A.
<b>Dispersion properties:</b>	See solubility in water.
<b>Solubility:</b>	N/A.
<b>Miscellaneous Data:</b>	N/A.
<b>Surface Tension:</b>	N/A.

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

**Stability and reactivity:** Stable, under recommended handling and storage conditions.

**Materials to avoid:** Strong oxidizing agents.

**Hazardous polymerization:** Will not occur.

**Hazardous Decomposition Products:** Toxic fumes of carbon monoxide, carbon dioxide, halogenated compounds, and phosphates.

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## **Section 11. Toxicological Information**

### **Route of Exposure**

Skin contact: Causes burns.

Skin Absorption: May be harmful if absorbed through the skin.

Eye contact: Causes burns.

Inhalation: may be harmful if inhaled.

Ingestion: May be harmful if swallowed.

### **Signs and Symptoms of Exposure**

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Prolonged contact can cause severe irritation or even burns. Symptoms of exposure may include burning sensation, lung irritation, chest pain, oedema (which may be fatal), coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema.

## **Section 12. Ecological Information**

No Data Available.

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## **Section 13. Disposal Considerations**

### **Substance disposal**

The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Contact a licensed professional waste disposal service to dispose of this material.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

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## **Section 14. Transport Information**

Contact the supplier for all information regarding the proper transportation method for this material.

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## **Section 15. Regulatory Information**

### **European/International Regulations**

R20/21/22R34R37: Harmful if inhaled, ingested, or in contact with skin. Causes burns. Irritating to the respiratory system

S26S27S36/37/39: If contact is made with eyes, immediately rinse with large amounts of water and seek medical consultation.

Hazard Symbol: C

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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.***

# MATERIAL SAFETY DATA SHEET

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## SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Buffer B, OneMinute® WB Stripping Enhancing Buffer

**Catalog Numbers:** GM6021

**Company Name & Address:**

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

**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

### DESCRIPTION

Water solutions of components listed.  
Volume of each product package varies: 10-500 ml.

COMPONENTS IN WATER REAGENT	CONCENTRATION, %
Component 1	0.01-1
Component 2	0.01-8

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## SECTION 3. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

Caution: Avoid contact and inhalation.

### HMIS RATING

HEALTH: 1  
FLAMMABILITY: 0  
REACTIVITY: 0

### NFPA RATING

HEALTH: 1  
FLAMMABILITY: 0  
REACTIVITY: 0

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## SECTION 4. FIRST AID MEASURES

**NOTICE TO READER** Get immediate medical attention.

### INHALATION EXPOSURE

If inhaled, remove to fresh air. If breathing becomes difficult, Get medical attention.

### INGESTION EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

### SKIN EXPOSURE

In case of skin contact, immediately flush with copious amounts of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

### EYE EXPOSURE

In case of contact with eyes, immediately flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Get medical attention.

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## SECTION 5. FIRE FIGHTING MEASURES

**FLASH POINTS** N/A

**AUTOIGNITION TEMP** N/A

**FLAMMABILITY** N/A

**EXTINGUISHING MEDIA**

Suitable: For small (incipient) fires, use media such as foam, dry chemical, or carbon dioxide. For large fires, use media such as foam, dry chemical, carbon dioxide or water.

**FIRE FIGHTING**

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s): Emits toxic fumes under fire conditions.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

**PERSONAL PRECAUTIONS**

Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.

**METHODS FOR CLEANING UP**

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

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## **SECTION 7. HANDLING AND STORAGE**

**HANDLING**

Do not get in eyes, on skin, on clothing. Avoid inhalation. Avoid prolonged or repeated exposure.

**STORAGE**

Keep container tightly closed.

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**ENGINEERING CONTROLS**

Safety shower and eye bath. Mechanical exhaust required.

**PERSONAL PROTECTIVE EQUIPMENT**

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks.

Hand: Protective gloves.

Eye: Chemical safety goggles.

**GENERAL HYGIENE MEASURES**

Wash thoroughly after handling.

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical state:** Liquid.

**Color:** Colorless.

**Odor:** N/A.

**Taste:** N/A.

**pH:** N/A

**Boiling Point:** N/A

**Freezing Point:** N/A

**Critical Temp:** N/A

**Vapor pressure:** N/A

**Vapor density:** N/A.

**Evaporation Rate:** N/A.

**Viscosity:** N/A  
**Dispersion properties:** N/A  
**Solubility:** N/A.  
**Miscellaneous Data:** N/A.  
**Surface Tension:** N/A.

N/A = not available

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## **SECTION 10. STABILITY AND REACTIVITY**

**STABILITY AND REACTIVITY:** Stable, under recommended handling and storage conditions.

**MATERIALS TO AVOID:** Potassium, Acid anhydrides.

**HAZARDOUS POLYMERIZATION:** Will not occur.

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

### **ROUTE OF EXPOSURE**

Skin contact: Causes burns.  
Skin Absorption: May be harmful if absorbed through the skin.  
Eye contact: May cause eye irritation  
Inhalation: may be harmful if inhales.  
Ingestion: May be harmful if swallowed.

### **SIGNS AND SYMPTOMS OF EXPOSURE**

Ingestion or absorption may cause nausea, vomiting, diarrhea, abdominal cramps, and erythematous lesions on the skin and mucous membranes. Other symptoms include: circulatory collapse, tachycardia, cyanosis, delirium, convulsions, and coma.

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## **SECTION 12. ECOLOGICAL INFORMATION**

No Data Available.

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

### **APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION**

The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

Contact the supplier for all information regarding the proper transportation method for this material.

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## **SECTION 15. REGULATORY INFORMATION**

### **EU ADDITIONAL CLASSIFICATION**

S: 24/25

Safety Statements: Avoid contact with skin and eyes.

### **US CLASSIFICATION AND LABEL TEXT**

US Statements: Caution: Avoid contact and inhalation.

### **UNITED STATES REGULATORY INFORMATION**

SARA LISTED: No

### **CANADA REGULATORY INFORMATION**

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No



## **SECTION 16. REGULATORY INFORMATION**

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