

# Material Safety Data Sheet

Trade Name DNA WASH BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 1. IDENTIFICATION OF PRODUCT AND COMPANY

### 1.1. Identification and Product Name

Product Name DNA Wash Buffer

### 1.2. Intended Use

Research Use Only

### 1.3. Manufacturer

Omega Bio-tek, Inc.

400 Pinnacle Way, Suite 450

Norcross, Georgia 30071

USA

Telephone 1-800-832-8896

Email info@omegabiotek.com

### 1.4. Emergency Telephone

If medical emergency, call 911.

Contact your local Poison Control Center.

## 2. HAZARD IDENTIFICATION

### 2.1. Emergency Overview

OSHA Hazards

No known OSHA Hazards  
Not a dangerous substance according GHS

GHS Classification

Not a dangerous substance according GHS

GHS Symbols

Signal Word : n/a

Hazard Statement(s): n/a

Precautionary Statement(s)

n/a

### 2.2. HMIS Classification (Scale 0-4)

Health Hazard 0

Flammability 0

Physical Hazards 0

# Material Safety Data Sheet

Trade Name DNA WASH BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 2.3 NFPA Rating (Scale 0-4)

Health Hazard 0

Fire 0

Reactivity Hazard 0

## 2.4 Potential Health Effects

Inhalation May cause respiratory tract irritation

Skin

Eyes

Ingestion May be harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Chemical Characterization

Mixture of the substances listed below with nonhazardous additions.

### 3.2 Synonyms

n/a

### 3.3 Component

n/a

Classification

Concentration

Refer to Section 16 for full text of H-Statements and R-Phrases.

## 4. FIRST AID MEASURES

### 4.1 General Advice

Wear protective gloves/protective clothing/eye protection/face protection.

### 4.2 If Inhaled

If not breathing, give artificial respiration.

### 4.3 In Case of Skin Contact

Wash with soap and water.

### 4.4 In Case of Eye Contact

Remove contact lenses if present and easy to do. Continue rinsing.

### 4.5 If Swallowed

n/a

# Material Safety Data Sheet

Trade Name DNA WASH BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 5. FIREFIGHTING MEASURES

- 5.1 **Conditions of Flammability**  
Not flammable or combustible.
- 5.2 **Suitable Extinguishing Media**  
Dry powder, CO<sub>2</sub>, water spray, or alcohol-resistant foam.
- 5.3 **Special Protective Equipment for Firefighters**  
Wear self-contained breathing apparatus, if necessary.
- 5.4 **Hazardous Combustion Products**  
n/a
- 5.5 **Further Information**  
Prevent fire-fighting water from entering surface water or groundwater.

## 6. ACCIDENTAL RELEASE MEASURES

- 6.1 **Personal Precautions**
- 6.2 **Environmental Precautions**
- 6.3 **Methods and Materials for Containment and Cleaning Up**  
Use inert absorbent material to soak up spill.

## 7. HANDLING AND STORAGE

- 7.1 **Precautions for Safe Handling**  
Handle in accordance with good chemical hygiene and safety practices. Protect from moisture. Avoid contact with eyes. Avoid inhalation of vapor or mist.
- 7.2 **Conditions for Safe Storage**  
No special storage conditions required
- 7.3 **Incompatible Products**  
n/a

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# Material Safety Data Sheet

Trade Name DNA WASH BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 8.1 Components with workplace control parameters

This product does not contain any substances with occupational exposure limit values.

## 8.2 Personal Protective Equipment

### Respiratory Protection

No special protective equipment required.

### Hand Protection

Use gloves when handling this product. Inspect gloves prior to use for any visible damage. Use proper glove removal technique to prevent contact with skin. Dispose of gloves in accordance with applicable laws. Wash and dry hands after use.

### Eye Protection

Use a face shield and/or safety goggles when handling this product. Use eye ware that has been approved by NIOSH.

### Skin and Body Protection

Wear appropriate laboratory attire when handling this product such as gloves, long pants, closed-toe shoes, and laboratory coat.

### Hygiene Measures

Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Appearance

Form	liquid
Color	colorless

### 9.2 Safety Data

pH	7.0-9.0
Melting Point/Freezing Point	no data available
Boiling Point	no data available
Flash Point	no data available
Ignition Temperature	no data available
Autoignition Temperature	no data available
Lower Explosion Limit	no data available
Upper Explosion Limit	no data available
Vapor Pressure	no data available
Density	no data available
Water Solubility	no data available
Partition Coefficient: n-octanol/water	no data available

# Material Safety Data Sheet

Trade Name DNA WASH BUFFER

Revision Date: 09.10.2015

Version: 3.0

Relative Vapor Density	no data available
Odor	no data available
Odor Threshold	no data available
Evaporation Rate	no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Chemical Stability

Stable under recommended storage conditions.

### 10.2 Possibility of Hazardous Reactions

n/a

### 10.3 Conditions to Avoid

n/a

### 10.4 Materials to Avoid

n/a

### 10.5 Hazardous Decomposition Products

n/a

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Acute Toxicity

Oral LD50 no data available

Inhalation LC50 no data available

Dermal LD50 no data available

Other Information on Acute Toxicity no data available

11.2 Skin Corrosion/Irritation no data available

11.3 Serious Eye Damage/Eye Irritation no data available

11.4 Respiratory or Skin Sensitization no data available

11.5 Germ Cell Mutagenicity no data available

11.6 Carcinogenicity

# Material Safety Data Sheet

Trade Name DNA WASH BUFFER

Revision Date: 09.10.2015

Version: 3.0

IARC	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.
NTP	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.
OSHA	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.
11.7 Reproductive Toxicity	no data available
11.8 Teratogenicity	no data available
11.9 Specific Target Organ Toxicity - Single Exposure	no data available
11.10 Specific Target Organ Toxicity - Repeated Exposures	no data available
11.11 Aspiration Hazard	no data available
11.12 Potential Health Effects	
Inhalation	n/a
Ingestion	n/a
Skin	n/a
Eyes	n/a
11.13 Signs and Symptoms of Exposure	
11.14 Synergistic Effects	no data available
11.15 Additional Information	RTECS: not available

## 12. ECOLOGICAL INFORMATION

# Material Safety Data Sheet

Trade Name DNA WASH BUFFER

Revision Date: 09.10.2015

Version: 3.0

12.1	Toxicity	no data available
12.2	Persistence and Degradability	no data available
12.3	Bioaccumulative Potential	no data available
12.4	Mobility in Soil	no data available
12.5	PBT and vPvB Assessment	no data available
12.6	Other Adverse Effects	no data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Product

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

Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

### 13.2 Contaminated Packaging

Disposal must be made according to official regulations.

## 14. TRANSPORT INFORMATION

14.1	DOT (US)	Not considered dangerous goods
14.2	IMDG	Not considered dangerous goods
14.3	IATA	Not considered dangerous goods

## 15. REGULATORY INFORMATION

# Material Safety Data Sheet

Trade Name DNA WASH BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 15.1 OSHA Hazards

n/a

## 15.2 SARA 302 Components

No chemicals in this product are required to be reported according to SARA Title III, Section 302.

## 15.3 SARA 313 Components

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

## 15.4 SARA 311/312 Hazards

None

## 15.5 Right to Know Components

	Component(s)	CAS-No.
Massachusetts	Water	7732-18-5
Pennsylvania	Water	7732-18-5
New Jersey	Water	7732-18-5

## 15.6 California Prop. 65 Components

This product does not contain any chemicals listed in the State of California's Proposition 65.

## 16. OTHER INFORMATION

### 16.1 Text for H-code(s) and R-phrases(s) used in Section 3

n/a

### 16.2 Further Information

The above information is believed to be correct but does not claim to be all inclusive. This document shall be used only as a guide. All materials and mixtures may be present unknown hazards and should be used with caution. Omega Bio-tek, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.



# Material Safety Data Sheet

Trade Name ELUTION BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 1. IDENTIFICATION OF PRODUCT AND COMPANY

### 1.1. Identification and Product Name

Product Name Elution Buffer

### 1.2. Intended Use

Research Use Only

### 1.3. Manufacturer

Omega Bio-tek, Inc.

400 Pinnacle Way, Suite 450

Norcross, Georgia 30071

USA

Telephone 1-800-832-8896

Email info@omegabiotek.com

### 1.4. Emergency Telephone

If medical emergency, call 911.

Contact your local Poison Control Center.

## 2. HAZARD IDENTIFICATION

### 2.1. Emergency Overview

OSHA Hazards

No known OSHA Hazards  
Not a dangerous substance according GHS

GHS Classification

Not a dangerous substance according GHS

GHS Symbols

Signal Word : n/a

Hazard Statement(s): n/a

Precautionary Statement(s)

n/a

### 2.2. HMIS Classification (Scale 0-4)

Health Hazard 0

Flammability 0

Physical Hazards 0

# Material Safety Data Sheet

Trade Name ELUTION BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 2.3 NFPA Rating (Scale 0-4)

Health Hazard 0

Fire 0

Reactivity Hazard 0

## 2.4 Potential Health Effects

Inhalation May cause respiratory tract irritation

Skin

Eyes

Ingestion May be harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Chemical Characterization

Mixture of the substances listed below with nonhazardous additions.

### 3.2 Synonyms

n/a

### 3.3 Component

n/a

Classification

Concentration

Refer to Section 16 for full text of H-Statements and R-Phrases.

## 4. FIRST AID MEASURES

### 4.1 General Advice

Wear protective gloves/protective clothing/eye protection/face protection.

### 4.2 If Inhaled

If not breathing, give artificial respiration.

### 4.3 In Case of Skin Contact

Wash with soap and water.

### 4.4 In Case of Eye Contact

Remove contact lenses if present and easy to do. Continue rinsing.

### 4.5 If Swallowed

n/a

# Material Safety Data Sheet

Trade Name ELUTION BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 5. FIREFIGHTING MEASURES

- 5.1 **Conditions of Flammability**  
Not flammable or combustible.
- 5.2 **Suitable Extinguishing Media**  
Dry powder, CO<sub>2</sub>, water spray, or alcohol-resistant foam.
- 5.3 **Special Protective Equipment for Firefighters**  
Wear self-contained breathing apparatus, if necessary.
- 5.4 **Hazardous Combustion Products**  
n/a
- 5.5 **Further Information**  
Prevent fire-fighting water from entering surface water or groundwater.

## 6. ACCIDENTAL RELEASE MEASURES

- 6.1 **Personal Precautions**
- 6.2 **Environmental Precautions**
- 6.3 **Methods and Materials for Containment and Cleaning Up**  
Use inert absorbent material to soak up spill.

## 7. HANDLING AND STORAGE

- 7.1 **Precautions for Safe Handling**  
Handle in accordance with good chemical hygiene and safety practices. Protect from moisture. Avoid contact with eyes. Avoid inhalation of vapor or mist.
- 7.2 **Conditions for Safe Storage**  
No special storage conditions required
- 7.3 **Incompatible Products**  
n/a

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# Material Safety Data Sheet

Trade Name ELUTION BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 8.1 Components with workplace control parameters

This product does not contain any substances with occupational exposure limit values.

## 8.2 Personal Protective Equipment

### Respiratory Protection

No special protective equipment required.

### Hand Protection

Use gloves when handling this product. Inspect gloves prior to use for any visible damage. Use proper glove removal technique to prevent contact with skin. Dispose of gloves in accordance with applicable laws. Wash and dry hands after use.

### Eye Protection

Use a face shield and/or safety goggles when handling this product. Use eye ware that has been approved by NIOSH.

### Skin and Body Protection

Wear appropriate laboratory attire when handling this product such as gloves, long pants, closed-toe shoes, and laboratory coat.

### Hygiene Measures

Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Appearance

Form	liquid
Color	colorless

### 9.2 Safety Data

pH	8.0-9.0
Melting Point/Freezing Point	no data available
Boiling Point	no data available
Flash Point	no data available
Ignition Temperature	no data available
Autoignition Temperature	no data available
Lower Explosion Limit	no data available
Upper Explosion Limit	no data available
Vapor Pressure	no data available
Density	no data available
Water Solubility	no data available
Partition Coefficient: n-octanol/water	no data available

# Material Safety Data Sheet

Trade Name ELUTION BUFFER

Revision Date: 09.10.2015

Version: 3.0

Relative Vapor Density	no data available
Odor	no data available
Odor Threshold	no data available
Evaporation Rate	no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Chemical Stability

Stable under recommended storage conditions.

### 10.2 Possibility of Hazardous Reactions

n/a

### 10.3 Conditions to Avoid

n/a

### 10.4 Materials to Avoid

n/a

### 10.5 Hazardous Decomposition Products

n/a

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Acute Toxicity

Oral LD50 no data available

Inhalation LC50 no data available

Dermal LD50 no data available

Other Information on Acute Toxicity no data available

11.2 Skin Corrosion/Irritation no data available

11.3 Serious Eye Damage/Eye Irritation no data available

11.4 Respiratory or Skin Sensitization no data available

11.5 Germ Cell Mutagenicity no data available

11.6 Carcinogenicity

# Material Safety Data Sheet

Trade Name ELUTION BUFFER

Revision Date: 09.10.2015

Version: 3.0

IARC	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.
NTP	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.
OSHA	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.
11.7 Reproductive Toxicity	no data available
11.8 Teratogenicity	no data available
11.9 Specific Target Organ Toxicity - Single Exposure	no data available
11.10 Specific Target Organ Toxicity - Repeated Exposures	no data available
11.11 Aspiration Hazard	no data available
11.12 Potential Health Effects	
Inhalation	n/a
Ingestion	n/a
Skin	n/a
Eyes	n/a
11.13 Signs and Symptoms of Exposure	
11.14 Synergistic Effects	no data available
11.15 Additional Information	RTECS: not available

## 12. ECOLOGICAL INFORMATION

# Material Safety Data Sheet

Trade Name ELUTION BUFFER

Revision Date: 09.10.2015

Version: 3.0

12.1	Toxicity	no data available
12.2	Persistence and Degradability	no data available
12.3	Bioaccumulative Potential	no data available
12.4	Mobility in Soil	no data available
12.5	PBT and vPvB Assessment	no data available
12.6	Other Adverse Effects	no data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Product

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

Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

### 13.2 Contaminated Packaging

Disposal must be made according to official regulations.

## 14. TRANSPORT INFORMATION

14.1	DOT (US)	Not considered dangerous goods
14.2	IMDG	Not considered dangerous goods
14.3	IATA	Not considered dangerous goods

## 15. REGULATORY INFORMATION

# Material Safety Data Sheet

Trade Name ELUTION BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 15.1 OSHA Hazards

n/a

## 15.2 SARA 302 Components

No chemicals in this product are required to be reported according to SARA Title III, Section 302.

## 15.3 SARA 313 Components

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

## 15.4 SARA 311/312 Hazards

None

## 15.5 Right to Know Components

	Component(s)	CAS-No.
Massachusetts	Water	7732-18-5
Pennsylvania	Water	7732-18-5
New Jersey	Water	7732-18-5

## 15.6 California Prop. 65 Components

This product does not contain any chemicals listed in the State of California's Proposition 65.

## 16. OTHER INFORMATION

### 16.1 Text for H-code(s) and R-phrases(s) used in Section 3

n/a

### 16.2 Further Information

The above information is believed to be correct but does not claim to be all inclusive. This document shall be used only as a guide. All materials and mixtures may be present unknown hazards and should be used with caution. Omega Bio-tek, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.



# Material Safety Data Sheet

Trade Name HBC BUFFER

Revision Date: 08.19.2015

Issue Date: 08.19.2015

Version: 4.0

## 1. IDENTIFICATION OF PRODUCT AND COMPANY

### 1.1. Identification and Product Name

Product Name HBC Buffer

### 1.2. Intended Use

Research Use Only

### 1.3. Manufacturer

Omega Bio-tek, Inc.

400 Pinnacle Way, Suite 450

Norcross, Georgia 30071

USA

Telephone 1-800-832-8896

Email info@omegabiotek.com

### 1.4. Emergency Telephone

If medical emergency, call 911.

Contact your local Poison Control Center.

## 2. HAZARD IDENTIFICATION

### 2.1. Emergency Overview

OSHA Hazards

Target Organ Effect, Toxic by Ingestion, Irritant

Target Organs

Bone Marrow, Nerves

GHS Classification

Acute toxicity, Oral (Category 4)  
Acute toxicity, Inhalation (Category 4)  
Skin irritation (Category 2)  
Eye irritation (Category 2A)

GHS Symbols



Signal Word

WARNING

Hazard Statement(s)

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled

# Material Safety Data Sheet

Trade Name HBC BUFFER

Revision Date: 08.19.2015

Issue Date: 08.19.2015

Version: 4.0

## Precautionary Statement(s)

P261  
P305 + P351 + P338  
P311

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Call a POISON CENTER or doctor/ physician.

## 2.2 HMIS Classification (Scale 0-4)

Health Hazard 2  
Flammability 0  
Physical Hazards 0

## 2.3 NFPA Rating (Scale 0-4)

Health Hazard 2  
Fire 0  
Reactivity Hazard 0

## 2.4 Potential Health Effects

Inhalation Toxic if Inhaled. May cause respiratory tract irritation.  
Skin Harmful if absorbed through skin. May cause skin irritation.  
Eyes Causes eye irritation.  
Ingestion Harmful if swallowed.  
Aggravated Medical Condition May cause nervous system disturbances.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Chemical Characterization

Mixture of the substances listed below with nonhazardous additions.

### 3.2 Synonyms

Guanidinium chloride  
Guanidine monohydrochloride  
Guanidinium hydrochloride

### 3.3 Component

Guanidine Hydrochloride  
CH<sub>6</sub>CIN<sub>3</sub>

CAS-No. 50-01-1  
EC-No. 200-002-3  
Index-No. 607-148-00-0

### Classification

Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; H302,  
H315, H319

### Concentration

50-100%

Refer to Section 16 for full text of H-Statements and R-Phrases.

# Material Safety Data Sheet

Trade Name HBC BUFFER

Revision Date: 08.19.2015

Issue Date: 08.19.2015

Version: 4.0

## 4. FIRST AID MEASURES

### 4.1 General Advice

Exit to a safe area. Consult a physician. Seek medical attention.

### 4.2 If Inhaled

Move to fresh air. If not breathing, give artificial respiration. Seek medical attention.

### 4.3 In Case of Skin Contact

Exit to safe area. Wash thoroughly with soap and water. Seek medical attention.

### 4.4 In Case of Eye Contact

Flush eyes with clean water for a minimum of 15 minutes keeping eyes open. Seek medical attention.

### 4.5 If Swallowed

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

## 5. FIREFIGHTING MEASURES

### 5.1 Conditions of Flammability

Not flammable or combustible.

### 5.2 Suitable Extinguishing Media

Dry powder, CO<sub>2</sub>, water spray, or regular foam.

### 5.3 Special Protective Equipment for Firefighters

Wear self-contained breathing apparatus, if necessary.

### 5.4 Hazardous Combustion Products

Carbon oxides (CO, CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>), Hydrogen Chloride gas

### 5.5 Further Information

Prevent fire-fighting water from entering surface water or groundwater.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal Precautions

Wear respiratory protection. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. See Section 8: Exposure Controls/Personal Protection for further details.

# Material Safety Data Sheet

Trade Name HBC BUFFER

Revision Date: 08.19.2015

Issue Date: 08.19.2015

Version: 4.0

## 6.2 Environmental Precautions

Prevent further leakage if area is safe. Do not let product enter drains. Avoid discharge into the environment.

## 6.3 Methods and Materials for Containment and Cleaning Up

Use inert absorbent material to soak up spill. Dispose of as hazardous waste. Do not flush with water.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for Safe Handling

Handle in accordance with good chemical hygiene and safety practices. Protect from moisture. Avoid contact with eyes. Avoid inhalation of vapor or mist.

### 7.2 Conditions for Safe Storage

Keep containers tightly closed in a dry, cool, and well-ventilated place. Protect from moisture.

### 7.3 Incompatible Products

Strong oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

This product does not contain any substances with occupational exposure limit values.

### 8.1 Personal Protective Equipment

#### Respiratory Protection

In case of insufficient ventilation wear suitable respiratory equipment. Use respirators that have been approved by NIOSH.

#### Hand Protection

Use gloves when handling this product. Inspect gloves prior to use for any visible damage. Use proper glove removal technique to prevent contact with skin. Dispose of gloves in accordance with applicable laws. Wash and dry hands after use.

#### Eye Protection

Use a face shield and/or safety goggles when handling this product. Use eye ware that has been approved by NIOSH.

#### Skin and Body Protection

Wear appropriate laboratory attire when handling this product such as gloves, long pants, closed-toe shoes, and laboratory coat.

#### Hygiene Measures

Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after using this product.

# Material Safety Data Sheet

Trade Name HBC BUFFER

Revision Date: 08.19.2015

Issue Date: 08.19.2015

Version: 4.0

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Appearance

Form	liquid
Color	colorless

### 9.2 Safety Data

pH	3.0 - 5.0
Melting Point/Freezing Point	no data available
Boiling Point	no data available
Flash Point	no data available
Ignition Temperature	no data available
Autoignition Temperature	no data available
Lower Explosion Limit	no data available
Upper Explosion Limit	no data available
Vapor Pressure	no data available
Density	no data available
Water Solubility	no data available
Partition Coefficient: n-octanol/water	no data available
Relative Vapor Density	no data available
Odor	no data available
Odor Threshold	no data available
Evaporation Rate	no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Chemical Stability

Stable under recommended storage conditions.

### 10.2 Possibility of Hazardous Reactions

no data available

### 10.3 Conditions to Avoid

no data available

### 10.4 Materials to Avoid

Strong oxidizing agents, Strong acids, Organic materials

### 10.5 Hazardous Decomposition Products

Carbon oxides, nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas

# Material Safety Data Sheet

Trade Name HBC BUFFER

Revision Date: 08.19.2015

Issue Date: 08.19.2015

Version: 4.0

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Acute Toxicity

Oral LD50	no data available
Inhalation LC50	no data available
Dermal LD50	2000 mg/kg (Rabbit )
Other Information on Acute Toxicity	no data available

11.2 Skin Corrosion/Irritation no data available

### 11.3 Serious Eye Damage/Eye Irritation

Eyes no data available

11.4 Respiratory or Skin Sensitization Components of the product may be absorbed into the body through the skin. Irritating to skin and mucous membranes.

11.5 Germ Cell Mutagenicity no data available

### 11.6 Carcinogenicity

IARC	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.
OSHA	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

11.7 Reproductive Toxicity no data available

11.8 Teratogenicity no data available

11.9 Specific Target Organ Toxicity - Single Exposure no data available

11.10 Specific Target Organ Toxicity - Repeated Exposures no data available

11.11 Aspiration Hazard no data available

### 11.12 Potential Health Effects

Inhalation	Harmful if inhaled. Causes respiratory tract irritation.
Ingestion	Harmful if swallowed.
Skin	Causes skin irritation.
Eyes	Causes serious eye irritation.

# Material Safety Data Sheet

Trade Name HBC BUFFER

Revision Date: 08.19.2015

Issue Date: 08.19.2015

Version: 4.0

- 11.13 **Signs and Symptoms of Exposure** To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
- 11.14 **Synergistic Effects** no data available
- 11.15 **Additional Information**

## 12. ECOLOGICAL INFORMATION

- 12.1 **Toxicity** no data available
- 12.2 **Persistence and Degradability** no data available
- 12.3 **Bioaccumulative Potential** no data available
- 12.4 **Mobility in Soil** no data available
- 12.5 **PBT and vPvB Assessment** no data available
- 12.6 **Other Adverse Effects** Harmful to aquatic life.  
Log Pow <= -1.7 20 °C

## 13. DISPOSAL CONSIDERATIONS

- 13.1 **Product**  
Disposal should be in accordance with applicable regional, national and local laws and regulations.  
S29 - Do not empty into drains  
S57 - Use appropriate container to avoid environmental contamination  
Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.
- 13.2 **Contaminated Packaging**  
Disposal must be made according to official regulations.

# Material Safety Data Sheet

Trade Name HBC BUFFER

Revision Date: 08.19.2015

Issue Date: 08.19.2015

Version: 4.0

## 14. TRANSPORT INFORMATION

- 14.1 DOT (US) Not considered dangerous goods.
- 14.2 IMDG Not considered dangerous goods.
- 14.3 IATA Not considered dangerous goods.

## 15. REGULATORY INFORMATION

### 15.1 OSHA Hazards

Target Organ Effect, Toxic by ingestion, Irritant

### 15.2 SARA 302 Components

No chemicals in this product are required to be reported according to SARA Title III, Section 302.

### 15.3 SARA 313 Components

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

### 15.4 SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

### 15.5 Right to Know Components

	Component(s)	CAS-No.
Massachusetts	No components are subject to the Massachusetts Right to Know Act.	
Pennsylvania	Guanidine Hydrochloride	50-01-1
	Water	7732-18-5
New Jersey	Guanidine Hydrochloride	50-01-1
	Water	7732-18-5

### 15.6 California Prop. 65 Components

This product does not contain any chemicals listed in the State of California's Proposition 65.



# Material Safety Data Sheet

Trade Name HBC BUFFER

Revision Date: 08.19.2015

Issue Date: 08.19.2015

Version: 4.0

## 16. OTHER INFORMATION

### 16.1 Text for H-code(s) and R-phrases(s) used in Section 3

Acute Tox.	Acute toxicity
Eye Irrit.	Eye irritation
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
Skin Irrit.	Skin irritation

### 16.2 Further Information

The above information is believed to be correct but does not claim to be all inclusive. This document shall be used only as a guide. All materials and mixtures may be present unknown hazards and should be used with caution. Omega Bio-tek, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

# Material Safety Data Sheet

Trade Name MB1 BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 1. IDENTIFICATION OF PRODUCT AND COMPANY

### 1.1. Identification and Product Name

Product Name MB1 Buffer

### 1.2. Intended Use

Research Use Only

### 1.3. Manufacturer

Omega Bio-tek, Inc.

400 Pinnacle Way, Suite 450

Norcross, Georgia 30071

USA

Telephone 1-800-832-8896

Email info@omegabiotek.com

### 1.4. Emergency Telephone

If medical emergency, call 911.

Contact your local Poison Control Center.

## 2. HAZARD IDENTIFICATION

### 2.1. Emergency Overview

OSHA Hazards

No known OSHA Hazards

Not a dangerous substance according GHS

GHS Classification

Not a dangerous substance according GHS

GHS Symbols

Signal Word : n/a

Hazard Statement(s): n/a

Precautionary Statement(s)

n/a

### 2.2. HMIS Classification (Scale 0-4)

Health Hazard 0

Flammability 0

Physical Hazards 0

# Material Safety Data Sheet

Trade Name MB1 BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 2.3 NFPA Rating (Scale 0-4)

Health Hazard 0

Fire 0

Reactivity Hazard 0

## 2.4 Potential Health Effects

Inhalation May cause respiratory tract irritation

Skin

Eyes

Ingestion May be harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Chemical Characterization

Mixture of the substances listed below with nonhazardous additions.

### 3.2 Synonyms

n/a

### 3.3 Component

n/a

Classification

Concentration

Refer to Section 16 for full text of H-Statements and R-Phrases.

## 4. FIRST AID MEASURES

### 4.1 General Advice

Wear protective gloves/protective clothing/eye protection/face protection.

### 4.2 If Inhaled

If not breathing, give artificial respiration.

### 4.3 In Case of Skin Contact

Wash with soap and water.

### 4.4 In Case of Eye Contact

Remove contact lenses if present and easy to do. Continue rinsing.

### 4.5 If Swallowed

n/a

# Material Safety Data Sheet

Trade Name MB1 BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 5. FIREFIGHTING MEASURES

- 5.1 **Conditions of Flammability**  
Not flammable or combustible.
- 5.2 **Suitable Extinguishing Media**  
Dry powder, CO<sub>2</sub>, water spray, or alcohol-resistant foam.
- 5.3 **Special Protective Equipment for Firefighters**  
Wear self-contained breathing apparatus, if necessary.
- 5.4 **Hazardous Combustion Products**  
n/a
- 5.5 **Further Information**  
Prevent fire-fighting water from entering surface water or groundwater.

## 6. ACCIDENTAL RELEASE MEASURES

- 6.1 **Personal Precautions**
- 6.2 **Environmental Precautions**
- 6.3 **Methods and Materials for Containment and Cleaning Up**  
Use inert absorbent material to soak up spill.

## 7. HANDLING AND STORAGE

- 7.1 **Precautions for Safe Handling**  
Handle in accordance with good chemical hygiene and safety practices. Protect from moisture. Avoid contact with eyes. Avoid inhalation of vapor or mist.
- 7.2 **Conditions for Safe Storage**  
No special storage conditions required
- 7.3 **Incompatible Products**  
n/a

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# Material Safety Data Sheet

Trade Name MB1 BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 8.1 Components with workplace control parameters

This product does not contain any substances with occupational exposure limit values.

## 8.2 Personal Protective Equipment

### Respiratory Protection

No special protective equipment required.

### Hand Protection

Use gloves when handling this product. Inspect gloves prior to use for any visible damage. Use proper glove removal technique to prevent contact with skin. Dispose of gloves in accordance with applicable laws. Wash and dry hands after use.

### Eye Protection

Use a face shield and/or safety goggles when handling this product. Use eye ware that has been approved by NIOSH.

### Skin and Body Protection

Wear appropriate laboratory attire when handling this product such as gloves, long pants, closed-toe shoes, and laboratory coat.

### Hygiene Measures

Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Appearance

Form	liquid
Color	colorless

### 9.2 Safety Data

pH	7.0-9.0
Melting Point/Freezing Point	no data available
Boiling Point	no data available
Flash Point	no data available
Ignition Temperature	no data available
Autoignition Temperature	no data available
Lower Explosion Limit	no data available
Upper Explosion Limit	no data available
Vapor Pressure	no data available
Density	no data available
Water Solubility	no data available
Partition Coefficient: n-octanol/water	no data available

# Material Safety Data Sheet

Trade Name MB1 BUFFER

Revision Date: 09.10.2015

Version: 3.0

Relative Vapor Density	no data available
Odor	no data available
Odor Threshold	no data available
Evaporation Rate	no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Chemical Stability

Stable under recommended storage conditions.

### 10.2 Possibility of Hazardous Reactions

n/a

### 10.3 Conditions to Avoid

n/a

### 10.4 Materials to Avoid

n/a

### 10.5 Hazardous Decomposition Products

n/a

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Acute Toxicity

Oral LD50 no data available

Inhalation LC50 no data available

Dermal LD50 no data available

Other Information on Acute Toxicity no data available

11.2 Skin Corrosion/Irritation no data available

11.3 Serious Eye Damage/Eye Irritation no data available

11.4 Respiratory or Skin Sensitization no data available

11.5 Germ Cell Mutagenicity no data available

11.6 Carcinogenicity

# Material Safety Data Sheet

Trade Name MB1 BUFFER

Revision Date: 09.10.2015

Version: 3.0

IARC	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.
NTP	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.
OSHA	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.
11.7 Reproductive Toxicity	no data available
11.8 Teratogenicity	no data available
11.9 Specific Target Organ Toxicity - Single Exposure	no data available
11.10 Specific Target Organ Toxicity - Repeated Exposures	no data available
11.11 Aspiration Hazard	no data available
11.12 Potential Health Effects	
Inhalation	n/a
Ingestion	n/a
Skin	n/a
Eyes	n/a
11.13 Signs and Symptoms of Exposure	
11.14 Synergistic Effects	no data available
11.15 Additional Information	RTECS: not available

## 12. ECOLOGICAL INFORMATION

# Material Safety Data Sheet

Trade Name MB1 BUFFER

Revision Date: 09.10.2015

Version: 3.0

12.1	Toxicity	no data available
12.2	Persistence and Degradability	no data available
12.3	Bioaccumulative Potential	no data available
12.4	Mobility in Soil	no data available
12.5	PBT and vPvB Assessment	no data available
12.6	Other Adverse Effects	no data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Product

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

Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

### 13.2 Contaminated Packaging

Disposal must be made according to official regulations.

## 14. TRANSPORT INFORMATION

14.1	DOT (US)	Not considered dangerous goods
14.2	IMDG	Not considered dangerous goods
14.3	IATA	Not considered dangerous goods

## 15. REGULATORY INFORMATION



# Material Safety Data Sheet

Trade Name MB1 BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 15.1 OSHA Hazards

n/a

## 15.2 SARA 302 Components

No chemicals in this product are required to be reported according to SARA Title III, Section 302.

## 15.3 SARA 313 Components

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

## 15.4 SARA 311/312 Hazards

None

## 15.5 Right to Know Components

	Component(s)	CAS-No.
Massachusetts	Water	7732-18-5
Pennsylvania	Water	7732-18-5
New Jersey	Water	7732-18-5

## 15.6 California Prop. 65 Components

This product does not contain any chemicals listed in the State of California's Proposition 65.

## 16. OTHER INFORMATION

### 16.1 Text for H-code(s) and R-phrases(s) used in Section 3

n/a

### 16.2 Further Information

The above information is believed to be correct but does not claim to be all inclusive. This document shall be used only as a guide. All materials and mixtures may be present unknown hazards and should be used with caution. Omega Bio-tek, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

# Material Safety Data Sheet

Trade Name MB2 BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 1. IDENTIFICATION OF PRODUCT AND COMPANY

### 1.1. Identification and Product Name

Product Name MB2 Buffer

### 1.2. Intended Use

Research Use Only

### 1.3. Manufacturer

Omega Bio-tek, Inc.

400 Pinnacle Way, Suite 450

Norcross, Georgia 30071

USA

Telephone 1-800-832-8896

Email info@omegabiotek.com

### 1.4. Emergency Telephone

If medical emergency, call 911.

Contact your local Poison Control Center.

## 2. HAZARD IDENTIFICATION

### 2.1. Emergency Overview

OSHA Hazards

No known OSHA Hazards  
Not a dangerous substance according GHS

GHS Classification

Not a dangerous substance according GHS

GHS Symbols

Signal Word : n/a

Hazard Statement(s): n/a

Precautionary Statement(s)

n/a

### 2.2. HMIS Classification (Scale 0-4)

Health Hazard 0

Flammability 0

Physical Hazards 0

# Material Safety Data Sheet

Trade Name MB2 BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 2.3 NFPA Rating (Scale 0-4)

Health Hazard 0

Fire 0

Reactivity Hazard 0

## 2.4 Potential Health Effects

Inhalation May cause respiratory tract irritation

Skin

Eyes

Ingestion May be harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Chemical Characterization

Mixture of the substances listed below with nonhazardous additions.

### 3.2 Synonyms

n/a

### 3.3 Component

n/a

Classification

Concentration

Refer to Section 16 for full text of H-Statements and R-Phrases.

## 4. FIRST AID MEASURES

### 4.1 General Advice

Wear protective gloves/protective clothing/eye protection/face protection.

### 4.2 If Inhaled

If not breathing, give artificial respiration.

### 4.3 In Case of Skin Contact

Wash with soap and water.

### 4.4 In Case of Eye Contact

Remove contact lenses if present and easy to do. Continue rinsing.

### 4.5 If Swallowed

n/a

# Material Safety Data Sheet

Trade Name MB2 BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 5. FIREFIGHTING MEASURES

- 5.1 **Conditions of Flammability**  
Not flammable or combustible.
- 5.2 **Suitable Extinguishing Media**  
Dry powder, CO<sub>2</sub>, water spray, or alcohol-resistant foam.
- 5.3 **Special Protective Equipment for Firefighters**  
Wear self-contained breathing apparatus, if necessary.
- 5.4 **Hazardous Combustion Products**  
n/a
- 5.5 **Further Information**  
Prevent fire-fighting water from entering surface water or groundwater.

## 6. ACCIDENTAL RELEASE MEASURES

- 6.1 **Personal Precautions**
- 6.2 **Environmental Precautions**
- 6.3 **Methods and Materials for Containment and Cleaning Up**  
Use inert absorbent material to soak up spill.

## 7. HANDLING AND STORAGE

- 7.1 **Precautions for Safe Handling**  
Handle in accordance with good chemical hygiene and safety practices. Protect from moisture. Avoid contact with eyes. Avoid inhalation of vapor or mist.
- 7.2 **Conditions for Safe Storage**  
No special storage conditions required
- 7.3 **Incompatible Products**  
n/a

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# Material Safety Data Sheet

Trade Name MB2 BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 8.1 Components with workplace control parameters

This product does not contain any substances with occupational exposure limit values.

## 8.2 Personal Protective Equipment

### Respiratory Protection

No special protective equipment required.

### Hand Protection

Use gloves when handling this product. Inspect gloves prior to use for any visible damage. Use proper glove removal technique to prevent contact with skin. Dispose of gloves in accordance with applicable laws. Wash and dry hands after use.

### Eye Protection

Use a face shield and/or safety goggles when handling this product. Use eye ware that has been approved by NIOSH.

### Skin and Body Protection

Wear appropriate laboratory attire when handling this product such as gloves, long pants, closed-toe shoes, and laboratory coat.

### Hygiene Measures

Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Appearance

Form	liquid
Color	colorless

### 9.2 Safety Data

pH	7.0-9.0
Melting Point/Freezing Point	no data available
Boiling Point	no data available
Flash Point	no data available
Ignition Temperature	no data available
Autoignition Temperature	no data available
Lower Explosion Limit	no data available
Upper Explosion Limit	no data available
Vapor Pressure	no data available
Density	no data available
Water Solubility	no data available
Partition Coefficient: n-octanol/water	no data available

# Material Safety Data Sheet

Trade Name MB2 BUFFER

Revision Date: 09.10.2015

Version: 3.0

Relative Vapor Density	no data available
Odor	no data available
Odor Threshold	no data available
Evaporation Rate	no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Chemical Stability

Stable under recommended storage conditions.

### 10.2 Possibility of Hazardous Reactions

n/a

### 10.3 Conditions to Avoid

n/a

### 10.4 Materials to Avoid

n/a

### 10.5 Hazardous Decomposition Products

n/a

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Acute Toxicity

Oral LD50 no data available

Inhalation LC50 no data available

Dermal LD50 no data available

Other Information on Acute Toxicity no data available

11.2 Skin Corrosion/Irritation no data available

11.3 Serious Eye Damage/Eye Irritation no data available

11.4 Respiratory or Skin Sensitization no data available

11.5 Germ Cell Mutagenicity no data available

11.6 Carcinogenicity

# Material Safety Data Sheet

Trade Name MB2 BUFFER

Revision Date: 09.10.2015

Version: 3.0

IARC	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.
NTP	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.
OSHA	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.
11.7 Reproductive Toxicity	no data available
11.8 Teratogenicity	no data available
11.9 Specific Target Organ Toxicity - Single Exposure	no data available
11.10 Specific Target Organ Toxicity - Repeated Exposures	no data available
11.11 Aspiration Hazard	no data available
11.12 Potential Health Effects	
Inhalation	n/a
Ingestion	n/a
Skin	n/a
Eyes	n/a
11.13 Signs and Symptoms of Exposure	
11.14 Synergistic Effects	no data available
11.15 Additional Information	RTECS: not available

## 12. ECOLOGICAL INFORMATION

# Material Safety Data Sheet

Trade Name MB2 BUFFER

Revision Date: 09.10.2015

Version: 3.0

12.1	Toxicity	no data available
12.2	Persistence and Degradability	no data available
12.3	Bioaccumulative Potential	no data available
12.4	Mobility in Soil	no data available
12.5	PBT and vPvB Assessment	no data available
12.6	Other Adverse Effects	no data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Product

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

Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

### 13.2 Contaminated Packaging

Disposal must be made according to official regulations.

## 14. TRANSPORT INFORMATION

14.1	DOT (US)	Not considered dangerous goods
14.2	IMDG	Not considered dangerous goods
14.3	IATA	Not considered dangerous goods

## 15. REGULATORY INFORMATION



# Material Safety Data Sheet

Trade Name MB2 BUFFER

Revision Date: 09.10.2015

Version: 3.0

## 15.1 OSHA Hazards

n/a

## 15.2 SARA 302 Components

No chemicals in this product are required to be reported according to SARA Title III, Section 302.

## 15.3 SARA 313 Components

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

## 15.4 SARA 311/312 Hazards

None

## 15.5 Right to Know Components

	Component(s)	CAS-No.
Massachusetts	Water	7732-18-5
Pennsylvania	Water	7732-18-5
New Jersey	Water	7732-18-5

## 15.6 California Prop. 65 Components

This product does not contain any chemicals listed in the State of California's Proposition 65.

## 16. OTHER INFORMATION

### 16.1 Text for H-code(s) and R-phrases(s) used in Section 3

n/a

### 16.2 Further Information

The above information is believed to be correct but does not claim to be all inclusive. This document shall be used only as a guide. All materials and mixtures may be present unknown hazards and should be used with caution. Omega Bio-tek, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

# Material Safety Data Sheet

Trade Name: Proteinase K Solution

Revision Date: 09/08/2014

## 1. IDENTIFICATION OF PRODUCT AND COMPANY

### 1.1. Identification and Product Name

Product Name           **Proteinase K Solution**

### 1.2. Intended Use

Research Use Only

### 1.3. Manufacturer

Omega Bio-tek, Inc.

400 Pinnacle Way, Suite 450

Norcross, Georgia 30071

USA

Telephone               1-800-832-8896

Email                    info@omegabiotek.com

### 1.4. Emergency Telephone

If medical emergency, call 911.

Contact your local Poison Control Center.

## 2. HAZARD IDENTIFICATION

### 2.1. Emergency Overview

OSHA Hazards

Target Organ Effect,  
Respiratory Sensitizer  
Irritant

GHS Classification:

Skin Irritation 2

Skin Sensitizer 1

Eye Irritation 2

Respiratory Sensitization 1

GHS Symbols



Signal Word : Danger

# Material Safety Data Sheet

Trade Name: Proteinase K Solution

Revision Date: 09/08/2014

## Hazard Statement(s):

H317 May cause an allergic skin reaction  
H315 Causes skin irritation  
H319 Causes serious eye irritation  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H335 May cause respiratory irritation.

## Precautionary Statement(s)

P280 Wear protective gloves/protective clothing/eye protection/face protection  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

## 2.2 HMIS Classification (Scale 0-4)

Health Hazard 2  
Flammability 1  
Physical Hazards 0

## 2.3 NFPA Rating (Scale 0-4)

Health Hazard 2  
Fire 1  
Reactivity Hazard 0

## 2.4 Potential Health Effects

Inhalation May cause respiratory tract irritation  
Skin May be harmful if absorbed through skin. Causes skin irritation.  
Eyes Causes eye irritation.  
Ingestion May be harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Chemical Characterization

Mixture of the substances listed below with nonhazardous additions.

### 3.2 Synonyms

Endopeptidase K

### 3.3 Component

#### Proteinase K

Classification	Concentration
Cas No. 39450-01-6	1-5%
EC No. 254-457-8	
Index No. 647-014-00-9	

#### Classification

#### Concentration

Skin Irrit. 2; Eye Irrit. 2; Resp. Sens. 1 Skin Irrit. 1; STOT SE 3; H315, H319, H334, H335	
---	--

# Material Safety Data Sheet

Trade Name: Proteinase K Solution

Revision Date: 09/08/2014

## Glycerol

Cas No. 56-81-5

30-60%

EC No. 200-289-5

Refer to Section 16 for full text of H-Statements and R-Phrases.

## 4. FIRST AID MEASURES

### 4.1 General Advice

Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

### 4.2 If Inhaled

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

### 4.3 In Case of Skin Contact

Wash off with soap and plenty of water. Consult a physician.

### 4.4 In Case of Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

### 4.5 If Swallowed

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

## 5. FIREFIGHTING MEASURES

### 5.1 Conditions of Flammability

Not flammable or combustible.

### 5.2 Suitable Extinguishing Media

Dry powder, CO<sub>2</sub>, water spray, or alcohol-resistant foam.

### 5.3 Special Protective Equipment for Firefighters

Wear self-contained breathing apparatus, if necessary.

### 5.4 Hazardous Combustion Products

N/A

### 5.5 Further Information

# Material Safety Data Sheet

Trade Name: Proteinase K Solution

Revision Date: 09/08/2014

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal Precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Use personal protective equipment.

### 6.2 Environmental Precautions

Do not let product enter drains.

### 6.3 Methods and Materials for Containment and Cleaning Up

Absorb on sand or vermiculite and place in closed containers for disposal. Pick up and transfer to properly labeled containers. Ensure proper ventilation and cleaning of spill site.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for Safe Handling

Avoid contact with skin and eyes.

### 7.2 Conditions for Safe Storage

Keep container tightly closed in a dry and well-ventilated place. Recommended Storage Temperature 2-8°C

### 7.3 Incompatible Products

N/A

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Components with workplace control parameters

Components	CAS-No.	Value	Control Parameters	Basis
Glycerol	56-81-5	TWA	10 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	5 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	10 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Upper Respiratory Tract Irritation		
		TWA	5 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	15 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants

# Material Safety Data Sheet

Trade Name: Proteinase K Solution

Revision Date: 09/08/2014

## 8.2 Personal Protective Equipment

### Respiratory Protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Hand Protection

Use gloves when handling this product. Inspect gloves prior to use for any visible damage. Use proper glove removal technique to prevent contact with skin. Dispose of gloves in accordance with applicable laws. Wash and dry hands after use.

### Eye Protection

Use a face shield and/or safety goggles when handling this product. Use eye ware that has been approved by NIOSH.

### Skin and Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Hygiene Measures

Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Appearance

Form	Liquid
Color	Clear/Slight Yellow

### 9.2 Safety Data

pH	no data available
Melting Point/Freezing Point	no data available
Boiling Point	no data available
Flash Point	no data available
Ignition Temperature	no data available
Autoignition Temperature	no data available
Lower Explosion Limit	no data available
Upper Explosion Limit	no data available
Vapor Pressure	no data available
Density	no data available
Water Solubility	no data available
Partition Coefficient: n-octanol/water	no data available
Relative Vapor Density	no data available
Odor	no data available
Odor Threshold	no data available
Evaporation Rate	no data available

# Material Safety Data Sheet

Trade Name: Proteinase K Solution

Revision Date: 09/08/2014

## 10. STABILITY AND REACTIVITY

### 10.1 Chemical Stability

Stable under recommended storage conditions.

### 10.2 Possibility of Hazardous Reactions

N/A

### 10.3 Conditions to Avoid

N/A

### 10.4 Materials to Avoid

N/A

### 10.5 Hazardous Decomposition Products

N/A

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Acute Toxicity

Oral LD50

Proteinase K

no data available

Glycerol

12,600 mg/kg (rat)

Inhalation LC50

no data available

Dermal LD50

no data available

>10,000 mg/kg (rabbit)

Other Information on Acute Toxicity

no data available

### 11.2 Skin Corrosion/Irritation

no data available

Mild skin irritation 24 hrs (rabbit)

### 11.3 Serious Eye Damage/Eye Irritation

no data available

Mild eye irritation 24 hrs (rabbit)

### 11.4 Respiratory or Skin Sensitization

no data available

### 11.5 Germ Cell Mutagenicity

no data available

### 11.6 Carcinogenicity

IARC

No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH

No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

NTP

No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA

No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

# Material Safety Data Sheet

Trade Name: Proteinase K Solution

Revision Date: 09/08/2014

11.7	Reproductive Toxicity	no data available
11.8	Teratogenicity	no data available
11.9	Specific Target Organ Toxicity - Single Exposure	no data available
11.10	Specific Target Organ Toxicity - Repeated Exposures	no data available
11.11	Aspiration Hazard	no data available
11.12	Potential Health Effects	
	Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
	Ingestion	May be harmful if swallowed.
	Skin	May be harmful if absorbed through skin.
	Eyes	Causes eye irritation.
11.13	Signs and Symptoms of Exposure	
11.14	Synergistic Effects	no data available
11.15	Additional Information	RTECS: not available

## 12. ECOLOGICAL INFORMATION

12.1	Toxicity	
	Toxicity to Fish LC50	>5,000 mg/L Carassius Auratus (Goldfish) 44,000 mg/L Pimephales Promelas (Fathead Minnow) >100,100 mg/L other fish 67,500 mg/L Oncorhynchus Mykiss (Rainbow Trout)



# Material Safety Data Sheet

Trade Name: Proteinase K Solution

Revision Date: 09/08/2014

12.2	Persistence and Degradability	no data available
12.3	Bioaccumulative Potential	no data available
12.4	Mobility in Soil	no data available
12.5	PBT and vPvB Assessment	no data available
12.6	Other Adverse Effects	no data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Product

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

Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

### 13.2 Contaminated Packaging

Disposal must be made according to official regulations.

## 14. TRANSPORT INFORMATION

14.1	DOT (US)	Not considered dangerous goods
14.2	IMDG	Not considered dangerous goods
14.3	IATA	Not considered dangerous goods

## 15. REGULATORY INFORMATION

### 15.1 OSHA Hazards

Target Organ Effect, Respiratory sensitiser, Irritant

### 15.2 SARA 302 Components

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

### 15.3 SARA 313 Components

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

### 15.4 SARA 311/312 Hazards

Acute Health Hazard

# Material Safety Data Sheet

Trade Name: Proteinase K Solution

Revision Date: 09/08/2014

## 15.5 Right to Know Components

	Component(s)	CAS-No.
Massachusetts	Glycerol	56-81-5
	Proteinase K	39450-01-6
Pennsylvania	Water	7732-18-5
	Glycerol	56-81-5
	Proteinase K	39450-01-6
New Jersey	Water	7732-18-5
	Glycerol	56-81-5
	Proteinase K	39450-01-6

## 15.6 California Prop. 65 Components

This product does not contain any chemicals listed in the State of California's Proposition 65.

## 16. OTHER INFORMATION

### 16.1 Text for H-code(s) and R-phrases(s) used in Section 3

N/A

### 16.2 Further Information

The above information is believed to be correct but does not claim to be all inclusive. This document shall be used only as a guide. All materials and mixtures may be present unknown hazards and should be used with caution. Omega Bio-tek, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

# Material Safety Data Sheet

Trade Name: RBB Buffer

Revision Date: 08.28.2014

Version: 2.0

## 1. IDENTIFICATION OF PRODUCT AND COMPANY

### 1.1. Identification and Product Name

Product Name RBB Buffer

### 1.2. Intended Use

Research Use Only

### 1.3. Manufacturer

Omega Bio-tek, Inc.

400 Pinnacle Way, Suite 450

Norcross, Georgia 30071

USA

Telephone 1-800-832-8896

Email info@omegabiotek.com

### 1.4. Emergency Telephone

If medical emergency, call 911.

Contact your local Poison Control Center.

## 2. HAZARD IDENTIFICATION

### 2.1. Emergency Overview

OSHA Hazards

Toxic by Inhalation, Harmful by Ingestion

Target Organs

not applicable

GHS Classification

Acute Toxicity, Inhalation (Category 3)  
Acute Toxicity, Oral (Category 4)  
Acute Aquatic Toxicity (Category 3)

GHS Symbols



Signal Word

DANGER

Hazard Statement(s)

H226 Flammable liquid and vapour  
H302 Harmful if Swallowed  
H331 Toxic if Inhaled  
H402 Harmful to Aquatic Life

Precautionary Statement(s)

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.  
P311 Call a Poison Control Center or physician.

# Material Safety Data Sheet

Trade Name: RBB Buffer

Revision Date: 08.28.2014

Version: 2.0

## 2.2 HMIS Classification (Scale 0-4)

Health Hazard 2  
Flammability 2  
Physical Hazards 0

## 2.3 NFPA Rating (Scale 0-4)

Health Hazard 2  
Fire 2  
Reactivity Hazard 0

## 2.4 Potential Health Effects

Inhalation Toxic if Inhaled. May cause respiratory tract irritation.  
Skin Harmful if absorbed through skin. May cause skin irritation.  
Eyes May cause eye irritation.  
Ingestion Harmful if swallowed.  
Aggravated Medical Condition May cause nervous system disturbances.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Chemical Characterization

Mixture of the substances listed below with nonhazardous additions.

### 3.2 Synonyms

Guanidinium thiocyanate  
Guanidinium rhodanide  
Guanidinium isothiocyanate  
Guanidine isothiocyanate

#### *Ethanol*

Ethyl Alcohol

### 3.3 Component

Guanidine Thiocyanate  
CH<sub>5</sub>N<sub>3</sub> x CHNS

CAS-No. 593-84-0  
EC-No. 209-812-1  
Index-No. 615-030-00-5

### Classification

Acute Tox. 4; Skin Corr. 1C; Aquatic Chronic 3;  
H302 + H312 + H332, H314, H412, EUH032

### Concentration

25-50%

# Material Safety Data Sheet

Trade Name: RBB Buffer

Revision Date: 08.28.2014

Version: 2.0

Ethanol		Flam. Liq. 2; H225	10-20%
$C_2H_6O$			
CAS-No.	64-17-5		
EC-No.	200-578-6		
Index-No.	603-002-00-5		

Refer to Section 16 for full text of H-Statements and R-Phrases.

## 4. FIRST AID MEASURES

### 4.1 General Advice

Exit to a safe area. Consult a physician. Seek medical attention.

### 4.2 If Inhaled

Move to fresh air. If not breathing, give artificial respiration. Seek medical attention.

### 4.3 In Case of Skin Contact

Exit to safe area. Wash thoroughly with soap and water. Seek medical attention.

### 4.4 In Case of Eye Contact

Flush eyes with clean water for a minimum of 15 minutes keeping eyes open. Seek medical attention.

### 4.5 If Swallowed

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

## 5. FIREFIGHTING MEASURES

### 5.1 Conditions of Flammability

Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

### 5.2 Suitable Extinguishing Media

Dry powder,  $CO_2$ , water spray, or regular foam.

### 5.3 Special Protective Equipment for Firefighters

Wear self-contained breathing apparatus, if necessary.

### 5.4 Hazardous Combustion Products

Carbon oxides ( $CO$ ,  $CO_2$ ), Sulfur Oxides ( $SOx$ ), Nitrogen oxides ( $NOx$ ).

### 5.5 Further Information

Prevent fire-fighting water from entering surface water or groundwater.

# Material Safety Data Sheet

Trade Name: RBB Buffer

Revision Date: 08.28.2014

Version: 2.0

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal Precautions

Wear respiratory protection. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. See Section 8: Exposure Controls/Personal Protection for further details.

### 6.2 Environmental Precautions

Prevent further leakage if area is safe. Do not let product enter drains. Avoid discharge into the environment.

### 6.3 Methods and Materials for Containment and Cleaning Up

Use inert absorbent material to soak up spill. Dispose of as hazardous waste. Do not flush with water.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for Safe Handling

Handle in accordance with good chemical hygiene and safety practices. Protect from moisture. Avoid contact with eyes. Avoid inhalation of vapor or mist.

### 7.2 Conditions for Safe Storage

Keep containers tightly closed in a dry, cool, and well-ventilated place. Protect from moisture.

### 7.3 Incompatible Products

Strong oxidizing agents. Strong Acids.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Components with workplace control parameters

Components	CAS-No.	Value	Control Parameters	Basis
Ethanol	64-17-5	TWA	1000 ppm 1900 mg/m <sup>3</sup>	OSHA PEL
		STEL	1000 ppm	OSHA PEL

### 8.2 Personal Protective Equipment

#### Respiratory Protection

In case of insufficient ventilation wear suitable respiratory equipment. Use respirators that have been approved by NIOSH.

#### Hand Protection

Use gloves when handling this product. Inspect gloves prior to use for any visible damage. Use proper glove removal technique to prevent contact with skin. Dispose of gloves in accordance with applicable laws. Wash and dry hands after use.

# Material Safety Data Sheet

Trade Name: RBB Buffer

Revision Date: 08.28.2014

Version: 2.0

## Eye Protection

Use a face shield and/or safety goggles when handling this product. Use eye ware that has been approved by NIOSH.

## Skin and Body Protection

Wear appropriate laboratory attire when handling this product such as gloves, long pants, closed-toe shoes, and laboratory coat.

## Hygiene Measures

Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Appearance

Form	liquid
Color	Clear

### 9.2 Safety Data

pH	5.0-7.0
Melting Point/Freezing Point	no data available
Boiling Point	no data available
Flash Point	no data available
Ignition Temperature	no data available
Autoignition Temperature	no data available
Lower Explosion Limit	no data available
Upper Explosion Limit	no data available
Vapor Pressure	no data available
Density	no data available
Water Solubility	no data available
Partition Coefficient: n-octanol/water	no data available
Relative Vapor Density	no data available
Odor	no data available
Odor Threshold	no data available
Evaporation Rate	no data available

## 10. STABILITY AND REACTIVITY

### 10.1 Chemical Stability

Stable under recommended storage conditions.

### 10.2 Possibility of Hazardous Reactions

no data available

# Material Safety Data Sheet

Trade Name: RBB Buffer

Revision Date: 08.28.2014

Version: 2.0

## 10.3 Conditions to Avoid

Heating

## 10.4 Materials to Avoid

Strong acids, strong oxidizing agents, cyanides

## 10.5 Hazardous Decomposition Products

Carbon oxides (COx), Sulfur Oxides (SOx), Nitrogen oxides (NOx), hydrogen cyanide, ammonia

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Acute Toxicity

Oral LD50	282 mg/kg (rat)
Inhalation LC50	no data available
Dermal LD50	no data available
Other Information on Acute Toxicity	no data available

11.2 Skin Corrosion/Irritation no data available

### 11.3 Serious Eye Damage/Eye Irritation

Eyes no data available

11.4 Respiratory or Skin Sensitization Components of the product may be absorbed into the body through the skin. Irritating to skin and mucous membranes.

11.5 Germ Cell Mutagenicity no data available

### 11.6 Carcinogenicity

IARC	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.
OSHA	No component of this product that is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

11.7 Reproductive Toxicity no data available

11.8 Teratogenicity no data available

11.9 Specific Target Organ Toxicity - Single Exposure no data available



# Material Safety Data Sheet

Trade Name: RBB Buffer

Revision Date: 08.28.2014

Version: 2.0

- |       |  |   |
|-------|--|---|
| 11.10 | <b>Specific Target Organ Toxicity - Repeated Exposures</b> | no data available   |
| 11.11 | <b>Aspiration Hazard</b>                                   | no data available   |
| 11.12 | <b>Potential Health Effects</b>                            |   |
|       | Inhalation   | Toxic if inhaled. May cause respiratory irritation.   |
|       | Ingestion  | Harmful if swallowed.   |
|       | Skin   | Harmful if absorbed through skin. May cause skin irritation.  |
|       | Eyes   | May cause eye irritation.   |
| 11.13 | <b>Signs and Symptoms of Exposure</b>                      | To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. |
| 11.14 | <b>Synergistic Effects</b>                                 | no data available   |
| 11.15 | <b>Additional Information</b>                              |   |

## 12. ECOLOGICAL INFORMATION

- |      |                                      |                          |
|------|--------------------------------------|--------------------------|
| 12.1 | <b>Toxicity</b>                      | no data available        |
| 12.2 | <b>Persistence and Degradability</b> | no data available        |
| 12.3 | <b>Bioaccumulative Potential</b>     | no data available        |
| 12.4 | <b>Mobility in Soil</b>              | no data available        |
| 12.5 | <b>PBT and vPvB Assessment</b>       | no data available        |
| 12.6 | <b>Other Adverse Effects</b>         | Harmful to aquatic life. |

# Material Safety Data Sheet

Trade Name: RBB Buffer

Revision Date: 08.28.2014

Version: 2.0

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Product

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

S29 - Do not empty into drains

S57 - Use appropriate container to avoid environmental contamination

Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

### 13.2 Contaminated Packaging

Disposal must be made according to official regulations.

## 14. TRANSPORT INFORMATION

14.1 DOT (US) Not considered dangerous goods.

14.2 IMDG Not considered dangerous goods.

14.3 IATA Not considered dangerous goods.

## 15. REGULATORY INFORMATION

### 15.1 OSHA Hazards

Toxic by inhalation.

Harmful by ingestion.

### 15.2 SARA 302 Components

No chemicals in this product are required to be reported according to SARA Title III, Section 302.

### 15.3 SARA 313 Components

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

### 15.4 SARA 311/312 Hazards

Acute Health Hazard

# Material Safety Data Sheet

Trade Name: RBB Buffer

Revision Date: 08.28.2014

Version: 2.0

## 15.5 Right to Know Components

	Component(s)	CAS-No.
Massachusetts	64-17-5	
Pennsylvania	Guanidine Thiocyanate	593-84-0
	Water	7732-18-5
	Ethanol	64-17-5
New Jersey	Guanidine Thiocyanate	593-84-0
	Water	7732-18-5
	Ethanol	64-17-5

## 15.6 California Prop. 65 Components

This product does not contain any chemicals listed in the State of California's Proposition 65.

## 16. OTHER INFORMATION

### 16.1 Text for H-code(s) and R-phrases(s) used in Section 3

Acute Tox.	Acute Toxicity
Aquatic Chronic	Chronic Aquatic Toxicity
EUH032	Contact with acids liberates very toxic gases.
H302 + H312 + H332	Harmful if swallowed, in contact with skin, or if inhaled.
H314	Causes severe skin burns and eye damage.
H412	Harmful to aquatic life with long lasting effects.
Skin Corr.	Skin Corrosion

### 16.2 Further Information

The above information is believed to be correct but does not claim to be all inclusive. This document shall be used only as a guide. All materials and mixtures may be present unknown hazards and should be used with caution. Omega Bio-tek, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.