

# Safety Data Sheet

Trade Name: Elution Buffer

Revision Date: 4/29/2016

## SECTION 1. IDENTIFICATION OF PRODUCT AND COMPANY:

**Product Name:** Elution Buffer

### **Manufacturer or Supplier Details:**

Company Name:	Bioland Scientific LLC
Address:	Bioland Scientific LLC 14925 Paramount Blvd., Suite C Paramount, CA 90723 USA
Telephone:	1-562-377-2668
Fax:	1-562-733-6008
Emergency Telephone:	1-562-377-2668

### **Recommended Use of the Chemical and Restrictions on Use:**

Recommended Use:	For research use only.
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## SECTION 2. HAZARDS IDENTIFICATION

### **Hazard Classification:**

Health Hazards:	No known OSHA hazards. Not a dangerous substance according to GHS.
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### **GHS Label Element:**

Hazard Symbol:	N/A
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<b>Hazard Statements:</b>	Not a hazardous substance or mixture.
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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS:

<b>Substance or Mixture:</b>	Mixture of non-hazardous substances.
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<b>Synonyms/Common Names:</b>	N/A
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## SECTION 4. FIRST AID MEASURES:

<b>General Advice:</b>	Wear protective gloves/protective clothing/eye protection/face protection.
<b>If Inhaled:</b>	If not breathing, give artificial respiration.
<b>In Case of Skin Contact:</b>	Wash with soap and water.
<b>In Case of Eye Contact:</b>	Remove contact lenses, if present and easy to do. Continue rinsing.
<b>If Swallowed:</b>	N/A
<b>Most Important Symptoms and Effects, Acute and Delayed:</b>	N/A
<b>Recommendations for Immediate Medical Attention and Special Treatment:</b>	Treat symptomatically. Symptoms may be delayed.

## SECTION 5. FIREFIGHTING MEASURES:

<b>Conditions of Flammability:</b>	Not flammable or combustible.
<b>Suitable Extinguishing Media:</b>	Dry powder, CO <sub>2</sub> , water spray or regular foam.
<b>Special Protective Equipment for Firefighters:</b>	Wear self-contained breathing apparatus, if necessary.
<b>Hazardous Combustion Products:</b>	N/A
<b>Further Information:</b>	Prevent firefighting water from entering surface water or groundwater.

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## SECTION 6. ACCIDENTAL RELEASE MEASURES:

<b>Personal Precautions:</b>	Avoid inhalation of vapors or mist. See Section 8: Exposure Controls/ Personal Protection for more information.
<b>Environmental Precautions:</b>	N/A
<b>Emergency Procedures:</b>	Evacuate personnel to safe areas and follow emergency response protocols.
<b>Methods and Materials for Containment and Cleaning Up:</b>	Use inert absorbent material to soak up spill.

## SECTION 7. HANDLING AND STORAGE:

<b>Precautions for Safe Handling:</b>	Handle in accordance with good chemical hygiene and safety practices. Protect from moisture. Avoid contact with eyes, skin and clothing. Avoid inhalation of vapors or mist.
<b>Conditions for Safe Storage:</b>	Keep container tightly closed in a dry, well-ventilated place.
<b>Incompatible Products:</b>	N/A

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

**Appropriate Engineering Controls:** Adequate ventilation and access to eye washing stations are required.

### Recommendations for Personal Protective Measures:

<b>Hand Protection:</b>	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.
<b>Eye Protection:</b>	Use a face shield and/or safety goggles when handling this product. Use eyewear that has been approved by NIOSH.
<b>Skin and Body Protection:</b>	Wear appropriate laboratory attire when handling this product, such as gloves, long pants, closed-toe shoes and a laboratory coat.

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Respiratory Protection:	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be used.
Hygiene Measures:	Avoid contact with eyes, skin and clothing. Wash hands thoroughly after using this product. Do not eat, drink or smoke when handling this product.

## Special Requirements for Personal Protective Equipment, Protective Clothing, Respirators, etc:

N/A

## Components with Workplace Control Parameters:

N/A

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES:

### Appearance:

Form:	Liquid
Color:	Colorless

**Odor:** No data available

**Odor Threshold:** No data available

**pH:** 8.0-9.0

**Melting Point/Freezing Point:** No data available

**Initial Boiling Point/Boiling Range:** No data available

**Flash Point:** No data available

**Evaporation Rate:** No data available

**Flammability (Solid, Gas):** No data available

### Upper/Lower Limits on Flammability and Explosive Limits:

Flammability Limit (Upper): No data available

Flammability Limit (Lower): No data available

Explosive Limit (Upper): No data available

Explosive Limit (Lower): No data available

**Vapor Pressure:** No data available

**Vapor Density:** No data available

**Relative Density:** No data available.

# Safety Data Sheet

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Revision Date: 4/29/2016

**Solubility:**

Solubility in Water: No data available

Solubility (Other): No data available

**Partition Coefficient (n-octanol/  
water):**

No data available

**Auto-Ignition Temperature:**

No data available

**Decomposition Temperature:**

No data available

**Viscosity:**

No data available

## SECTION 10. STABILITY AND REACTIVITY:

**Reactivity:** No dangerous reactions known under conditions of normal use.

**Chemical Stability:** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** N/A

**Conditions to Avoid:** N/A

**Materials to Avoid:** N/A

**Hazardous Decomposition Products:** N/A

## SECTION 11. TOXICOLOGICAL INFORMATION:

**Information on Likely Routes of Exposure:**

Inhalation: No data available

Ingestion: No data available

Skin: No data available

Eyes: No data available

**Information on Toxicological Effects:****Acute Toxicity:**

Oral LD50: No data available

Inhalation LC50: No data available

Dermal LD50: No data available

Other Information: No data available

Skin Corrosion/Irritation: No data available

Serious Eye Damage/Irritation: No data available

Respiratory or Skin Sensitization: No data available

# Safety Data Sheet

Trade Name: Elution Buffer

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Germ Cell Mutagenicity: No data available

## **Carcinogenicity:**

IARC: No component of this product that is present at 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product that is present at 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

NTP: No component of this product that is present at 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA: No component of this product that is present at 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

Reproductive Toxicity: No data available

Teratogenicity: No data available

Specific Target Organ Toxicity - Single Exposure: No data available

Specific Target Organ Toxicity - Repeated Exposures: No data available

Aspiration Hazard: No data available

Signs and Symptoms of Exposure: No data available

Synergistic Effects: No data available

Additional Information: None known.

## **SECTION 12. ECOLOGICAL INFORMATION:**

Toxicity: No data available.

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

PBT and vPvB Assessment: No data available.

Other Adverse Effects: No data available.

# Safety Data Sheet

Trade Name: Elution Buffer

Revision Date: 4/29/2016

## SECTION 13. DISPOSAL CONSIDERATIONS:

**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.

**Contaminated Packaging:** Disposal must be made according to official regulations.

## SECTION 14. TRANSPORT INFORMATION:

**DOT:** Not regulated.

**IMDG:** Not regulated.

**IATA:** Not regulated.

## SECTION 15. REGULATORY INFORMATION:

### US Federal Regulations:

SARA 302 Components: None present or none present in regulated quantities.

SARA 313 Components: None present or none present in regulated quantities.

SARA 311/312 Hazards: No data available.

### US State Regulations:

California Prop. 65: No ingredient regulated by CA Prop 65 present.

Massachusetts RTK: No ingredient regulated by MS Right to Know Act present.

New Jersey & Community RTK: Water CAS No. 7732-18-5

Pennsylvania RTK: Water CAS No. 7732-18-5

Rhode Island RTK: No ingredient regulated by RI Right to Know Act present.

# Safety Data Sheet

Trade Name: Elution Buffer

Revision Date: 4/29/2016

## SECTION 16. OTHER INFORMATION:

**Issue Date:** 9/10/2015

**Revision Date:** 4/29/2016

**Version:** 3.0

**Further Information:** No data available.

**Disclaimer:** 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 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.



# Safety Data Sheet

Trade Name: DNA Wash Buffer

Revision Date: 6/29/2018

## SECTION 1. IDENTIFICATION OF PRODUCT AND COMPANY:

**Product Name:** Wash Buffer

### **Manufacturer or Supplier Details:**

Company Name:	Bioland Scientific LLC
Address:	Bioland Scientific LLC 14925 Paramount Blvd., Suite C Paramount, CA 90723 USA
Telephone:	1-562-377-2668
Fax:	1-562-733-6008
Emergency Telephone:	1-562-377-2668

### **Recommended Use of the Chemical and Restrictions on Use:**

Recommended Use:	For research use only.
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## SECTION 2. HAZARDS IDENTIFICATION

### **Hazard Classification:**

Health Hazards:	No known OSHA hazards. Not a dangerous substance according to GHS.
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### **GHS Label Element:**

Hazard Symbol:	N/A
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<b>Hazard Statements:</b>	Not a hazardous substance or mixture.
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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS:

<b>Substance or Mixture:</b>	Mixture of non-hazardous substances.
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<b>Synonyms/Common Names:</b>	N/A
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# Safety Data Sheet

Trade Name: DNA Wash Buffer

Revision Date: 6/29/2018

## SECTION 4. FIRST AID MEASURES:

<b>General Advice:</b>	Wear protective gloves/protective clothing/eye protection/face protection.
<b>If Inhaled:</b>	If not breathing, give artificial respiration.
<b>In Case of Skin Contact:</b>	Wash with soap and water.
<b>In Case of Eye Contact:</b>	Remove contact lenses, if present and easy to do. Continue rinsing.
<b>If Swallowed:</b>	N/A
<b>Most Important Symptoms and Effects, Acute and Delayed:</b>	N/A
<b>Recommendations for Immediate Medical Attention and Special Treatment:</b>	Treat symptomatically. Symptoms may be delayed.

## SECTION 5. FIREFIGHTING MEASURES:

<b>Conditions of Flammability:</b>	Not flammable or combustible.
<b>Suitable Extinguishing Media:</b>	Dry powder, CO <sub>2</sub> , water spray or regular foam.
<b>Special Protective Equipment for Firefighters:</b>	Wear self-contained breathing apparatus, if necessary.
<b>Hazardous Combustion Products:</b>	N/A
<b>Further Information:</b>	Prevent firefighting water from entering surface water or groundwater.

# Safety Data Sheet

Trade Name: DNA Wash Buffer

Revision Date: 6/29/2018

## SECTION 6. ACCIDENTAL RELEASE MEASURES:

<b>Personal Precautions:</b>	Avoid inhalation of vapors or mist. See Section 8: Exposure Controls/ Personal Protection for more information.
<b>Environmental Precautions:</b>	N/A
<b>Emergency Procedures:</b>	Evacuate personnel to safe areas and follow emergency response protocols.
<b>Methods and Materials for Containment and Cleaning Up:</b>	Use inert absorbent material to soak up spill.

## SECTION 7. HANDLING AND STORAGE:

<b>Precautions for Safe Handling:</b>	Handle in accordance with good chemical hygiene and safety practices. Protect from moisture. Avoid contact with eyes, skin and clothing. Avoid inhalation of vapors or mist.
<b>Conditions for Safe Storage:</b>	Keep container tightly closed in a dry, well-ventilated place.
<b>Incompatible Products:</b>	N/A

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

**Appropriate Engineering Controls:** Adequate ventilation and access to eye washing stations are required.

### Recommendations for Personal Protective Measures:

<b>Hand Protection:</b>	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.
<b>Eye Protection:</b>	Use a face shield and/or safety goggles when handling this product. Use eyewear that has been approved by NIOSH.
<b>Skin and Body Protection:</b>	Wear appropriate laboratory attire when handling this product, such as gloves, long pants, closed-toe shoes and a laboratory coat.

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Trade Name: DNA Wash Buffer

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Respiratory Protection:	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be used.
Hygiene Measures:	Avoid contact with eyes, skin and clothing. Wash hands thoroughly after using this product. Do not eat, drink or smoke when handling this product.

## Special Requirements for Personal Protective Equipment, Protective Clothing, Respirators, etc:

N/A

## Components with Workplace Control Parameters:

N/A

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES:

### Appearance:

Form:	Liquid
Color:	Colorless

**Odor:** No data available

**Odor Threshold:** No data available

**pH:** 5.0-7.0

**Melting Point/Freezing Point:** No data available

**Initial Boiling Point/Boiling Range:** No data available

**Flash Point:** No data available

**Evaporation Rate:** No data available

**Flammability (Solid, Gas):** No data available

### Upper/Lower Limits on Flammability and Explosive Limits:

Flammability Limit (Upper): No data available

Flammability Limit (Lower): No data available

Explosive Limit (Upper): No data available

Explosive Limit (Lower): No data available

**Vapor Pressure:** No data available

**Vapor Density:** No data available

**Relative Density:** No data available.

# Safety Data Sheet

Trade Name: DNA Wash Buffer

Revision Date: 6/29/2018

**Solubility:**

Solubility in Water: No data available

Solubility (Other): No data available

**Partition Coefficient (n-octanol/  
water):**

No data available

**Auto-Ignition Temperature:**

No data available

**Decomposition Temperature:**

No data available

**Viscosity:**

No data available

## SECTION 10. STABILITY AND REACTIVITY:

**Reactivity:** No dangerous reactions known under conditions of normal use.

**Chemical Stability:** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** N/A

**Conditions to Avoid:** N/A

**Materials to Avoid:** N/A

**Hazardous Decomposition Products:** N/A

## SECTION 11. TOXICOLOGICAL INFORMATION:

**Information on Likely Routes of Exposure:**

Inhalation: No data available

Ingestion: No data available

Skin: No data available

Eyes: No data available

**Information on Toxicological Effects:****Acute Toxicity:**

Oral LD50: No data available

Inhalation LC50: No data available

Dermal LD50: No data available

Other Information: No data available

Skin Corrosion/Irritation: No data available

Serious Eye Damage/Irritation: No data available

Respiratory or Skin Sensitization: No data available

# Safety Data Sheet

Trade Name: DNA Wash Buffer

Revision Date: 6/29/2018

Germ Cell Mutagenicity: No data available

## **Carcinogenicity:**

IARC: No component of this product that is present at 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product that is present at 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

NTP: No component of this product that is present at 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA: No component of this product that is present at 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

**Reproductive Toxicity:** No data available

**Teratogenicity:** No data available

**Specific Target Organ Toxicity - Single Exposure:** No data available

**Specific Target Organ Toxicity - Repeated Exposures:** No data available

**Aspiration Hazard:** No data available

**Signs and Symptoms of Exposure:** No data available

**Synergistic Effects:** No data available

**Additional Information:** None known.

## **SECTION 12. ECOLOGICAL INFORMATION:**

**Toxicity:** No data available.

**Persistence and Degradability:** No data available.

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** No data available.

**PBT and vPvB Assessment:** No data available.

**Other Adverse Effects:** No data available.

# Safety Data Sheet

Trade Name: DNA Wash Buffer

Revision Date: 6/29/2018

## SECTION 13. DISPOSAL CONSIDERATIONS:

**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.

**Contaminated Packaging:** Disposal must be made according to official regulations.

## SECTION 14. TRANSPORT INFORMATION:

**DOT:** Not regulated.

**IMDG:** Not regulated.

**IATA:** Not regulated.

## SECTION 15. REGULATORY INFORMATION:

### US Federal Regulations:

SARA 302 Components: None present or none present in regulated quantities.

SARA 313 Components: None present or none present in regulated quantities.

SARA 311/312 Hazards: No data available.

### US State Regulations:

California Prop. 65: No ingredient regulated by CA Prop 65 present.

Massachusetts RTK: No ingredient regulated by MS Right to Know Act present.

New Jersey & Community RTK: Water CAS No. 7732-18-5

Pennsylvania RTK: Water CAS No. 7732-18-5

Rhode Island RTK: No ingredient regulated by RI Right to Know Act present.

# Safety Data Sheet

Trade Name: DNA Wash Buffer

Revision Date: 6/29/2018

## SECTION 16. OTHER INFORMATION:

### Disclaimer:

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Bioland Scientific LLC provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. BIOLAND SCIENTIFIC LLC MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, BIOLAND SCIENTIFIC LLC WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.



# Safety Data Sheet

Trade Name: GB Buffer

Revision Date: 5/10/2016

## SECTION 1. IDENTIFICATION OF PRODUCT AND COMPANY:

**Product Name:** GB Buffer

**Manufacturer or Supplier Details:** Bioland Scientific LLC

Company Name: Bioland Scientific LLC  
Address: 14925 Paramount Blvd., Suite C  
Paramount, CA 90723  
USA  
Telephone: 1-562-377-2668  
Fax: 1-562-733-6008  
Emergency Telephone: 1-562-377-2668  
  
CHEMTREC  
USA & Canada: 1-800-424-9300  
Outside USA & Canada: 1-703-527-3887

### Recommended Use of the Chemical and Restrictions on Use:

Recommended Use: For research use only.

## SECTION 2. HAZARDS IDENTIFICATION

### Hazard Classification:

OSHA Hazards:	Harmful by inhalation, harmful by ingestion, harmful in contact with skin.	
Health Hazards:	Acute toxicity, inhalation	Category 4
	Acute toxicity, oral	Category 4
	Acute toxicity, dermal	Category 4
	Acute aquatic toxicity	Category 3
	Chronic aquatic toxicity	Category 3

### GHS Label Element:

Hazard Symbol:



Signal Word:

Warning

### Hazard Statements:

H412 - Harmful to aquatic life with long lasting effects.  
H302 - Harmful if swallowed.  
H312 - Harmful in contact with skin.  
H332 - Harmful if inhaled.

# Safety Data Sheet

Trade Name: GB Buffer

Revision Date: 5/10/2016

## Precautionary Statements:

P261 - Avoid breathing dust/fumes/gas/mist/vapors/spray.  
P311 - Call a POISON CENTER or doctor/physician.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician.  
P304 + P340 - IF INHALED: Remove person to fresh air and keep in a position comfortable for breathing.

## Potential Health Effects:

Aggravated Medical Conditions: May cause nervous system disturbances.  
Symptoms of Overexposure:  
Inhalation: Harmful 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.

## Carcinogenicity:

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

## SECTION 3. COMPOSITION OF/INFORMATION ON INGREDIENTS

**Substance or Mixture:** Mixture of the substances listed below with non-hazardous additions.

**Synonyms/Common Names:** Guanidinium thiocyanate, Guanidinium rhodanide, Guanidinium isothiocyanate, Guanidine isothiocyanate

Chemical Name	CAS No.	Concentration (%)
Guanidine thiocyanate $\text{CH}_5\text{N}_3 \cdot \text{CHNS}$	593-84-0	25-50%

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## SECTION 4. FIRST AID MEASURES

<b>General Advice:</b>	Exit to a safe area. Consult a physician. Seek medical attention.
<b>If Inhaled:</b>	Move to fresh air. If not breathing, give artificial respiration. Seek medical attention.
<b>In Case of Skin Contact:</b>	Exit to safe area. Remove contaminated clothing. Wash thoroughly with soap and water. Seek medical attention.
<b>In Case of Eye Contact:</b>	Flush eyes with clean water for a minimum of 15 minutes keeping eyes open. Seek medical attention.
<b>If Swallowed:</b>	Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek medical attention.
<b>Most Important Symptoms and Effects, Acute and Delayed:</b>	May cause pain, irritation or redness, and watering of eyes.
<b>Recommendations for Immediate Medical Attention and Special Treatment:</b>	

## SECTION 5. FIREFIGHTING MEASURES

<b>Conditions of Flammability:</b>	Not flammable or combustible.
<b>Suitable Extinguishing Media:</b>	Dry powder, CO <sub>2</sub> , water spray or alcohol-resistant foam.
<b>Special Protective Equipment for Firefighters:</b>	Wear self-contained breathing apparatus, if necessary.
<b>Hazardous Combustion Products:</b>	Carbon oxides (CO, CO <sub>2</sub> ), sulfur oxides (SOx), nitrogen oxides (NOx)
<b>Further Information:</b>	Prevent firefighting water from entering surface water or groundwater.

# Safety Data Sheet

Trade Name: GB Buffer

Revision Date: 5/10/2016

## SECTION 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	Wear respiratory protection when ventilation is inadequate. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. See Section 8: Exposure Controls/Personal Protection for more details.
<b>Environmental Precautions:</b>	Prevent further leakage if area is safe. Do not let product enter drains. Avoid discharge into the environment.
<b>Emergency Procedures:</b>	Evacuate personnel to safe areas and follow emergency response protocols.
<b>Methods and Materials for Containment and Cleaning Up:</b>	Use inert absorbent material to soak up spill. Dispose of hazardous waste. Do not flush with water.

## SECTION 7. HANDLING AND STORAGE

<b>Precautions for Safe Handling:</b>	Handle in accordance with good chemical hygiene and safety practices. Protect from moisture. Avoid contact with skin and eyes. Avoid inhalation of vapors or mist.
<b>Conditions for Safe Storage:</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from light and moisture. Do not store near acids.
<b>Incompatible Products:</b>	Strong oxidizing agents, strong acids

# Safety Data Sheet

Trade Name: GB Binding Buffer

Revision Date: 5/10/2016

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Appropriate Engineering Controls:** Adequate ventilation and access to eye washing stations are required.

### Recommendations for Personal Protective Measures:

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 eyewear 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 a laboratory coat.
Respiratory Protection:	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be used.
Hygiene Measures:	Avoid contact with eyes, skin and clothing. Wash hands thoroughly after using this product. Do not eat, drink or smoke when handling this product.

### Special Requirements for Personal Protective Equipment, Protective Clothing, Respirators, etc.

N/A

### Components with Workplace Control Parameters:

N/A

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance:

Form:	Liquid
Color:	Dark yellow

**Odor:** No data available

**Odor Threshold:** No data available

**pH:** 4.0-6.0

**Melting Point/Freezing Point:** No data available

**Initial Boiling Point/Boiling Range:** No data available

# Safety Data Sheet

Trade Name: GB Binding Buffer

Revision Date: 5/10/2016

<b>Flash Point:</b>	No data available
<b>Evaporation Rate:</b>	No data available
<b>Flammability (Solid, Gas):</b>	No data available
<b>Upper/Lower Limits on Flammability and Explosive Limits:</b>	
Flammability Limit (Upper):	No data available
Flammability Limit (Lower):	No data available
Explosive Limit (Upper):	No data available
Explosive Limit (Lower):	No data available
<b>Vapor Pressure:</b>	No data available
<b>Vapor Density:</b>	No data available
<b>Relative Density:</b>	No data available
<b>Solubility:</b>	
Solubility in Water:	No data available
Solubility (Other):	No data available
<b>Partition Coefficient (n-octanol/water):</b>	No data available
<b>Auto-Ignition Temperature:</b>	No data available
<b>Decomposition Temperature:</b>	No data available
<b>Viscosity:</b>	No data available

## SECTION 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	No dangerous reaction known under conditions of normal use.
<b>Chemical Stability:</b>	Stable under recommended storage conditions.
<b>Possibility of Hazardous Reactions:</b>	No data available.
<b>Conditions to Avoid:</b>	Heating, flames, sparks
<b>Materials to Avoid:</b>	Strong acids, strong oxidizing agents, cyanides
<b>Hazardous Decomposition Products:</b>	Carbon oxides (COx), sulfur oxides (SOx), nitrogen oxides (NOx)

## SECTION 11. TOXICOLOGICAL INFORMATION

### Information on Likely Routes of Exposure:

Inhalation:	Harmful if inhaled. May cause respiratory tract irritation.
Ingestion:	Harmful if swallowed.
Skin:	Harmful if absorbed through skin. May cause skin irritation.

# Safety Data Sheet

Trade Name: GB Buffer

Revision Date: 5/10/2016

Eyes: May cause eye irritation.

## Information on Toxicological Effects:

### Acute Toxicity:

Oral LD50:	593 mg/kg (Rat)
Inhalation LC50:	No data available
Dermal LD50:	No data available
Other Information:	Peritoneal LD50: 300 mg/kg (Mouse)
Skin Corrosion/Irritation:	No data available
Serious Eye Damage/Irritation:	No data available
Respiratory or Skin Sensitization:	Components of this product may be absorbed into the body through the skin. Irritating to skin and mucus membranes.
Germ Cell Mutagenicity:	No data available

## Carcinogenicity:

IARC:	No component of this product that is present at 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH:	No component of this product that is present at 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.
NTP:	No component of this product that is present at 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.
OSHA:	No component of this product that is present at 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

Reproductive Toxicity: No data available

Teratogenicity: No data available

Specific Target Organ Toxicity - Single Exposure: No data available

Specific Target Organ Toxicity - Repeated Exposures: No data available

Aspiration Hazard: No data available

Signs and Symptoms of Exposure: Irritating to eyes, respiratory system and skin.

Synergistic Effects: No data available

Additional Information: No data available

# Safety Data Sheet

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## SECTION 12. ECOLOGICAL INFORMATION

<b>Toxicity:</b>	EC50: 42.4 mg/L - 48 h ( <i>Daphnia</i> )
<b>Persistence and Degradability:</b>	No data available.
<b>Bioaccumulative Potential:</b>	No data available.
<b>Mobility in Soil:</b>	Product is water soluble and may spread in water systems.
<b>PBT and vPvB Assessment:</b>	No data available.
<b>Other Adverse Effects:</b>	Harmful to aquatic life with long lasting effects.

## SECTION 13. DISPOSAL CONSIDERATIONS

<b>Product:</b>	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.
<b>Contaminated Packaging:</b>	Disposal must be made according to official regulations.  To minimize exposure, please refer to Section 8: Exposure Control/Personal Protection of this SDS.

## SECTION 14. TRANSPORT INFORMATION

<b>DOT:</b>	Not considered dangerous goods.
<b>IMDG:</b>	Not considered dangerous goods.
<b>IATA:</b>	Not considered dangerous goods.

## SECTION 15. REGULATORY INFORMATION

<b>US Federal Regulations:</b>	
OSHA Hazards:	Harmful by inhalation, harmful by ingestion, harmful in contact with skin.
Aggravated Medical Conditions:	May cause nervous system disturbances.
Symptoms of Overexposure:	



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Inhalation:	Harmful if inhaled. May cause respiratory irritation.
Skin:	Harmful if absorbed through skin. May cause skin irritation.
Eyes:	May cause eye irritation.
Ingestion:	Harmful if swallowed.
SARA 302 Components:	None present or none present in regulated quantities.
SARA 313 Components:	None present or none present in regulated quantities.
SARA 311/312 Hazards:	Acute health hazard

## US State Regulations:

California Prop. 65:	No ingredient regulated by CA Prop 65 present.	
Massachusetts RTK:	No component are subject to the MA RTK Act.	
New Jersey RTK:	<b>Component(s)</b>	<b>CAS-No.</b>
	Guanidine thiocyanate	593-84-0
	Water	7732-18-5
Pennsylvania RTK:	Guanidine thiocyanate	593-84-0
	Water	7732-18-5
Rhode Island RTK:	Guanidine thiocyanate	593-84-0
	Water	7732-18-5

## SECTION 16. OTHER INFORMATION

<b>Issue Date:</b>	8/29/2016
<b>Revision Date:</b>	5/10/2016
<b>Version:</b>	4.0
<b>Further Information:</b>	No data available.
<b>Disclaimer:</b>	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 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.