

Safety Data Sheet

Trade Name: DNA Wash Buffer

Revision Date: 06/01/2018

SECTION 1. IDENTIFICATION OF PRODUCT AND COMPANY:

Product Name: DNA Wash Buffer

Manufacturer or Supplier Details:

Company Name:	Bioland Scientific LLC
Address:	14925 Paramount Blvd, Suite C Paramount, CA 90723 USA
Telephone:	1-800-832-8896
Email:	info@bioland-sci.com
Emergency Telephone:	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.
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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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Hazard Statements:	Not a hazardous substance or mixture.
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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS:

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

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

SECTION 5. FIREFIGHTING MEASURES:

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

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SECTION 6. ACCIDENTAL RELEASE MEASURES:

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

SECTION 7. HANDLING AND STORAGE:

Precautions for Safe Handling:	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.
Conditions for Safe Storage:	Keep container tightly closed in a dry, well-ventilated place.
Incompatible Products:	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:

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.

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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: 7.0-9.0

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.

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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

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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: DNA Wash Buffer

Revision Date: 06 / 01/2018

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: 06 / 01/2018

SECTION 16. OTHER INFORMATION:

Issue Date: 9/10/2017

Revision Date: 06/01/2018

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. Bioland Scientific LLC shall not be held liable for any damage resulting from handling or from contact with the above product.

Safety Data Sheet

Trade Name: Elution Buffer

Revision Date: 06/01/2018

SECTION 1. IDENTIFICATION OF PRODUCT AND COMPANY:

Product Name: Elution Buffer

Manufacturer or Supplier Details:

Company Name: Bioland Scientific LLC
Address: 14925 Paramount Blvd, Suite C
Paramount, CA 90723
USA
Telephone: 1-562-602-8882
Email: service@bioland-sci.com
Emergency Telephone: 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:

Health Hazards: No known OSHA hazards.
Not a dangerous substance according to GHS.

GHS Label Element:

Hazard Symbol: N/A

Hazard Statements: Not a hazardous substance or mixture.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS:

Substance or Mixture: Mixture of non-hazardous substances.

Synonyms/Common Names: N/A

Safety Data Sheet

Trade Name: Elution Buffer

Revision Date: 06/01/2018

SECTION 4. FIRST AID MEASURES:

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

SECTION 5. FIREFIGHTING MEASURES:

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

Safety Data Sheet

Trade Name: Elution Buffer

Revision Date: 06/01/2018

SECTION 6. ACCIDENTAL RELEASE MEASURES:

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

SECTION 7. HANDLING AND STORAGE:

Precautions for Safe Handling:	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.
Conditions for Safe Storage:	Keep container tightly closed in a dry, well-ventilated place.
Incompatible Products:	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:

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.

Safety Data Sheet

Trade Name: Elution Buffer

Revision Date: 06/01/2018

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

Trade Name: Elution Buffer

Revision Date: 06/01/2018

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: Elution Buffer

Revision Date: 06/01/2018

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: Elution Buffer

Revision Date: 06/01/2018

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

Safety Data Sheet

Trade Name: Elution Buffer

Revision Date: 06/01/2018

SECTION 16. OTHER INFORMATION:

Issue Date: 9/10/2015

Revision Date: 06/01/2018

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. Bioland Scientific LLC shall not be held liable for any damage resulting from handling or from contact with the above product.

Safety Data Sheet

Trade Name: RNase A

Revision Date: 12/30/2016

SECTION 1. IDENTIFICATION OF PRODUCT AND COMPANY:

Product Name:

Manufacturer or Supplier Details:

Company Name: Bioland Scientific LLC
Address: 14925 Paramount Blvd, Suite C
Paramount, CA 90723
USA

Telephone: 1-562-602-8882
Email: service@bioland-sci.com
Emergency Telephone: 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:

Health Hazards: Respiratory sensitizer Category 1

GHS Label Element:



Hazard Statements:

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary Statements:

P261 - Avoid breathing dust/fumes/gas/mist/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P284 - In case of inadequate ventilation, wear respiratory protection.
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P332 + P313 - IF SKIN IRRITATION OCCURS: Get medical advice/attention.
P342 + P311 - IF EXPERIENCING RESPIRATORY SYMPTOMS: Call a POISON CENTER or doctor/physician.

Safety Data Sheet

Trade Name: RNase A

Revision Date: 12/30/2016

SECTION 3. COMPOSITION OF/INFORMATION ON INGREDIENTS:

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

Synonyms/Common Names: Ribonuclease A, ribonuclease I, ribonuclease 3' pyrimidinooligonucleotide hydrolase, pancreatic ribonuclease

Chemical Name	CAS No.	Concentration (%)
Glycerol	56-81-5	30-60%
RNase	9001-99-4	1-3%

SECTION 4. FIRST AID MEASURES:

General Advice: Exit to a safe area. Consult a physician.

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

In Case of Skin Contact: Wash off with soap and plenty of water. Consult a physician.

In Case of Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

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

Most Important Symptoms and Effects, Acute and Delayed: N/A

Recommendations for Immediate Medical Attention and Special Treatment: Treat symptomatically. Symptoms may be delayed.

SECTION 5. FIREFIGHTING MEASURES:

Conditions of Flammability: Not flammable or combustible.

Suitable Extinguishing Media: Dry powder, CO₂, water spray or alcohol-resistant foam.

Safety Data Sheet

Trade Name: RNase A

Revision Date: 12/30/2016

Special Protective Equipment for Firefighters:

Wear self-contained breathing apparatus, if necessary.

Hazardous Combustion Products:

Carbon oxides, nitrogen oxides

Further Information:

Prevent firefighting water from entering surface water or groundwater.

SECTION 6. ACCIDENTAL RELEASE MEASURES:

Personal Precautions:

Use personal protective equipment. Avoid breathing vapors or mist. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. See Section 8: Exposure Controls/Personal Protection for more information.

Environmental Precautions:

Do not let product enter drains.

Emergency Procedures:

Evacuate personnel to safe areas and follow emergency response protocols.

Methods and Materials for Containment and Cleaning Up:

Use inert material to soak up spill. Keep waste in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE:

Precautions for Safe Handling:

Handle in accordance with good chemical hygiene and safety practices. Avoid inhalation of vapor or mist.

Conditions for Safe Storage:

Store at 2-8°C. Keep containers tightly closed.

Incompatible Products:

Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Appropriate Engineering Controls:

Adequate ventilation and access to eye washing stations are required.

Safety Data Sheet

Trade Name: RNase A

Revision Date: 12/30/2016

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:

Components	CAS No.	Value	Control Parameters	Basis
Glycerol	56-81-5	PEL	15 mg/m ³	USA. OSHA Table Z-1 Limits for Air Contaminants
		PEL	5 mg/m ³	USA. OSHA Table Z-1 Limits for Air Contaminants
		TWA	10 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:

Form:	Liquid
Color:	Colorless

Odor: No data available

Odor Threshold: No data available

pH: No data available

Melting Point/Freezing Point: No data available

Initial Boiling Point/Boiling Range: No data available

Flash Point: No data available

Safety Data Sheet

Trade Name: RNase A

Revision Date: 12/30/2016

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
Vapor Pressure:	No data available
Vapor Density:	No data available
Relative Density:	No data available
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 reaction known under conditions of normal use
Chemical Stability:	Stable under recommended storage conditions
Possibility of Hazardous Reactions:	None under normal processing
Conditions to Avoid:	Extreme temperatures and direct sunlight
Materials to Avoid:	Strong oxidizing agents
Hazardous Decomposition Products:	No data available

SECTION 11. TOXICOLOGICAL INFORMATION:

Information on Toxicological Effects:

	RNase A	Glycerol
Acute Toxicity:		
Oral LD50:	No data available	12,600 mg/kg (rat)
Inhalation LC50:	No data available	No data available
Dermal LD50:	No data available	> 10,000 mg/kg (rabbit)
Other Information:	No data available	No data available
Skin Corrosion/Irritation:	No data available	Mild skin irritation, 24 hrs (rabbit)
Serious Eye Damage/Irritation:	No data available	Mild eye irritation, 24 hrs (rabbit)

Safety Data Sheet

Trade Name: RNase A

Revision Date: 12/30/2016

Respiratory or Skin Sensitization: No data available

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: Prolonged or repeated exposure may cause headache, nausea, vomiting.

Synergistic Effects: No data available

Additional Information: Kidney: Irregularities - Based on human evidence (Glycerol)

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: RNase A

Revision Date: 12/30/2016

SECTION 13. DISPOSAL CONSIDERATIONS:

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.

Contaminated Packaging: 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:

DOT: Not considered dangerous goods.
IMDG: Not considered dangerous goods.
IATA: Not considered dangerous goods.

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: Acute health hazard

US State Regulations:

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

Safety Data Sheet

Trade Name: RNase A

Revision Date: 12/30/2016

SECTION 16. OTHER INFORMATION:

Issue Date: 9/9/2014

Revision Date: 12/30/2016

Version: 2.5

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: Buffer A I

Revision Date: 06/01/2018

SECTION 1. IDENTIFICATION OF PRODUCT AND COMPANY:

Product Name: Buffer A I

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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Hazard Statements:	Not a hazardous substance or mixture.
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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS:

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

Trade Name: Buffer A1

Revision Date: 06/01/2018

SECTION 4. FIRST AID MEASURES:

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

SECTION 5. FIREFIGHTING MEASURES:

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

Safety Data Sheet

Trade Name: Buffer A1

Revision Date: 06/01/2018

SECTION 6. ACCIDENTAL RELEASE MEASURES:

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

SECTION 7. HANDLING AND STORAGE:

Precautions for Safe Handling:	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.
Conditions for Safe Storage:	Keep container tightly closed in a dry, well-ventilated place.
Incompatible Products:	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:

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.

Safety Data Sheet

Trade Name: Buffer A1

Revision Date: 06/01/2018

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: 7.0-9.0

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

Trade Name: Buffer AI

Revision Date: 06/01/2018

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: Buffer AI

Revision Date: 06/01/2018

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: Buffer AI

Revision Date: 06/01/2018

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: Buffer A1

Revision Date: 06/01/2018

SECTION 16. OTHER INFORMATION:

Disclaimer:

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: Buffer A2

Revision Date: 6/9/2018

SECTION 1. IDENTIFICATION OF PRODUCT AND COMPANY:

Product Name: Buffer A2

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
Email: 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.

SECTION 2. HAZARDS IDENTIFICATION

Hazard Classification:

OSHA Hazards:	Corrosive to metals	Category 1
Health Hazards:	Skin irritation	Category 2
	Eye irritation	Category 2A

GHS Label Element:

Hazard Symbol:



Signal Word:

Warning

Hazard Statements:

H290 - May be corrosive to metals
H315 - Skin irritant
H319 - Eye irritant

Precautionary Statements:

P234 - Keep only in original container.
P264 - Wash skin thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Safety Data Sheet

Trade Name: Buffer A2

Revision Date: 6/9/2018

P332 + P313 - If skin irritation occurs: Get medical advice/attention.
P337 + P313 - If skin irritation persists: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P390 - Absorb spillage to prevent material damage.

Potential Health Effects:

Aggravated Medical Conditions:

Symptoms of Overexposure:

Inhalation: May be harmful if inhaled.
Skin: Causes skin irritation.
Eyes: Causes eye irritation.
Ingestion: May be 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: N/A

Chemical Name	CAS No.	Concentration (%)
Sodium Hydroxide NaOH	1310-73-2	≥ 1-5%

SECTION 4. FIRST AID MEASURES

General Advice: Exit to a safe area. Consult a physician. Seek medical attention.

Safety Data Sheet

Trade Name: Buffer A2

Revision Date: 9/9/2018

If Inhaled:	Move to fresh air. If not breathing, give artificial respiration. Seek medical attention.
In Case of Skin Contact:	Exit to safe area. Remove contaminated clothing. Wash thoroughly with soap and water. Seek medical attention.
In Case of Eye Contact:	Flush eyes with clean water for a minimum of 15 minutes keeping eyes open. Seek medical attention. Continue rinsing eyes during transport to hospital.
If Swallowed:	Do NOT induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek medical attention.
Most Important Symptoms and Effects, Acute and Delayed:	Irritation of skin and eyes.
Recommendations for Immediate Medical Attention and Special Treatment:	

SECTION 5. FIREFIGHTING MEASURES

Conditions of Flammability:	Not flammable or combustible.
Suitable Extinguishing Media:	Dry powder, CO ₂ , water spray or alcohol-resistant foam.
Special Protective Equipment for Firefighters:	Wear self-contained breathing apparatus, if necessary.
Hazardous Combustion Products:	Sodium oxides
Further Information:	Prevent firefighting water from entering surface water or groundwater.

SECTION 6. ACCIDENTAL RELEASE MEASURES

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

Safety Data Sheet

Trade Name: Buffer A2

Revision Date: 6/9/2018

Emergency Procedures:

Evacuate personnel to safe areas and follow emergency response protocols.

Methods and Materials for Containment and Cleaning Up:

Use inert absorbent material to soak up spill. Dispose of hazardous waste.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling:

Handle in accordance with good chemical hygiene and safety practices. Avoid contact with skin and eyes. Avoid inhalation of vapors or mist.

Conditions for Safe Storage:

Keep containers tightly closed in a dry, cool and well-ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Incompatible Products:

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:

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

Hygiene Measures:

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

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

N/A

Safety Data Sheet

Trade Name: Buffer A2

Revision Date: 6/9/2018

Components with Workplace Control Parameters:

Components	CAS No.	Value	Control Parameters	Basis
Sodium Hydroxide	1310-73-2	TWA	2 mg/m ³	USA. Occupational Exposure Limits (OSHA)- Table Z-1 Limits for Air Contaminants
		C	2 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
Remarks:	Eye, skin, and upper respiratory tract irritation.			
		C	2 mg/m ³	USA. NIOSH Recommended Exposure Limits

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form: Liquid
Color: Colorless

Odor: No data available

Odor Threshold: No data available

pH: 12.0-14.0

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

Solubility:

Solubility in Water: No data available

Solubility (Other): No data available

Safety Data Sheet

Trade Name: Buffer A2

Revision Date: 6/9/2018

SECTION 10. STABILITY AND REACTIVITY:

Reactivity:	No data available
Chemical Stability:	Stable under recommended storage conditions.
Possibility of Hazardous Reactions:	No data available
Conditions to Avoid:	No data available
Materials to Avoid:	Strong oxidizing agents, strong acids, organic materials
Hazardous Decomposition Products:	Sodium oxides

SECTION 11. TOXICOLOGICAL INFORMATION:

Information on Likely Routes of Exposure:

Inhalation:	May be harmful if inhaled.
Ingestion:	May be harmful if swallowed.
Skin:	Causes skin irritation.
Eyes:	Causes eye irritation.

Information on Toxicological Effects:

Acute Toxicity:	
Oral LD50:	No data available
Inhalation LC50:	No data available
Dermal LD50:	67,500 mg/kg (Rabbit)
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
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.

Safety Data Sheet

Trade Name: Buffer A2

Revision Date: 6/9/2018

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

SECTION 12. TOXICOLOGICAL 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

SECTION 13. DISPOSAL CONSIDERATIONS:

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

Safety Data Sheet

Trade Name: Buffer A2

Revision Date: 6/9/2018

SECTION 14. TRANSPORT INFORMATION:

DOT:

Proper Shipping Name:	UN Number	Class	Packaging Group
Sodium hydroxide solution	1824	8 - Corrosive material (49CFR173.136)	III - Minor danger
Poison Inhalation Hazard:	No		

IMDG:

Proper Shipping Name	UN Number	Class	Packaging Group	EMS-No.
Sodium hydroxide solution	1824	8	III	F-A, S-B

IATA:

Proper Shipping Name	UN Number	Class	Packaging Group
Sodium hydroxide solution	1824	8	III

SECTION 15. REGULATORY INFORMATION:

US Federal Regulations:

OSHA Hazards:	Corrosive to metals
Aggravated Medical Conditions:	
Symptoms of Overexposure:	
Inhalation:	May be harmful if inhaled.
Skin:	Causes skin irritation.
Eyes:	Causes eye irritation.
Ingestion:	May be 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.	
New Jersey & Community RTK:	Component(s)	CAS-No.
	Sodium Hydroxide	1310-73-2
	Water	7732-18-5

Safety Data Sheet

Trade Name: Buffer A2

Revision Date: 6/9/2018

Massachusetts RTK:	Sodium Hydroxide	1310-73-2
Pennsylvania RTK:	Sodium Hydroxide	1310-73-2
	Water	7732-18-5
Rhode Island RTK:	Sodium Hydroxide	1310-73-2
	Water	7732-18-5

SECTION 16. OTHER INFORMATION:

Disclaimer:

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: Buffer N1

Revision Date: 6/7/2018

SECTION 1. IDENTIFICATION OF PRODUCT AND COMPANY:

Product Name: Buffer N1

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.

SECTION 2. HAZARDS IDENTIFICATION

Hazard Classification:

OSHA Hazards:	Corrosive	
Health Hazards:	Skin corrosion	Category 1A
	Serious eye damage	Category 1
	Acute toxicity, oral	Category 4
	Specific target organ toxicity - single exposure	Category 3

GHS Label Element:

Hazard Symbol:



Signal Word: Danger

Hazard Statements:

H302 - Harmful if swallowed.
H314 - Causes severe eye burns and eye damage.
H318 - Causes serious eye damage.
H319 - Causes serious skin irritation.
H332 - Harmful if inhaled.

Safety Data Sheet

Trade Name: Buffer N1

Revision Date: 6/7/2018

Precautionary Statements:

P261 - Avoid breathing dust/fumes/gas/mist/vapors/spray.
P264 - Wash skin thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P311 - Call a POISON CENTER or doctor/physician.
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/take off all contaminated clothing. Rinse skin with water/shower.

Potential Health Effects:

Symptoms of Overexposure: Redness, pain, skin burns. Watering and irritation to eyes. Repeated exposures may cause erosion of exposed front teeth, darkening of the skin and chronic inflammation of the nose, throat and bronchial tubes.

Inhalation: Harmful if inhaled. Inhalation may cause lung and tooth damage.

Skin: Causes severe skin burns.

Eyes: Causes severe eye damage.

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/INFORMATION ON INGREDIENTS:

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

Synonyms/Common Names:

Chemical Name	CAS No.	Concentration (%)
Acetic acid $C_2H_4O_2$	64-19-7	5-10%
Guaniidine Hydrochloride CH_6ClN_3	50-01-1	25-50%

Safety Data Sheet

Trade Name: Buffer N1

Revision Date: 6/7/2018

SECTION 4. FIRST AID MEASURES:

General Advice:	Exit to a safe area. Consult a physician. Seek medical attention.
If Inhaled:	Move to fresh air. If not breathing, give artificial respiration. Seek medical attention.
In Case of Skin Contact:	Exit to safe area. If on skin or hair, take off contaminated clothing and shoes immediately. Wash thoroughly with soap and water. Seek medical attention.
In Case of Eye Contact:	Flush eyes with clean water for a minimum of 15 minutes keeping eyes open. Seek medical attention. Continue rinsing eyes during transport to hospital.
If Swallowed:	Do NOT induce vomiting. Give large quantity of water. Never give anything by mouth to an unconscious person. Seek medical attention.
Most Important Symptoms and Effects, Acute and Delayed:	Irritating to eyes, respiratory system and skin. Narcotic effect.
Recommendations for Immediate Medical Attention and Special Treatment:	Treat symptomatically. Symptoms may be delayed.

SECTION 5. FIREFIGHTING MEASURES:

Conditions of Flammability:	Not flammable or combustible.
Suitable Extinguishing Media:	Dry powder, CO ₂ , water spray or alcohol-resistant foam.
Special Protective Equipment for Firefighters:	Wear self-contained breathing apparatus, if necessary.
Hazardous Combustion Products:	Carbon oxides (CO, CO ₂), nitrogen oxides (NO _x), hydrogen chloride gas
Further Information:	Prevent firefighting water from entering surface water or groundwater.

Safety Data Sheet

Trade Name: Buffer N1

Revision Date: 6/7/2018

SECTION 6. ACCIDENTAL RELEASE MEASURES:

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

SECTION 7. HANDLING AND STORAGE:

Precautions for Safe Handling:	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.
Conditions for Safe Storage:	Keep containers tightly closed in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Incompatible Products:	Strong oxidizing agents

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.

Safety Data Sheet

Trade Name: Buffer N1

Revision Date: 6/7/2018

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:

Components with Workplace Control Parameters:

Components	CAS No.	Value	Control Parameters	Basis
Acetic acid	64-19-7	TWA	10 ppm	USA. ACGIH Threshold Limit Values (TLV)
Remarks:	Eye and upper respiratory tract irritation pulmonary function			
		STEL	15 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Eye and upper respiratory tract irritation, pulmonary function			
		TWA	10 ppm 25 mg/m ³	USA. OSHA - TABLE Z-1 for Air Contaminants - 1910.1000
	The value in mg/m ³ is approximate.			
		TWA	10 ppm 25 mg/m ³	USA. NIOSH recommended exposure limits
		ST	10ppm 25 mg/m ³	USA. NIOSH recommended exposure limits

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:

Form:	Liquid
Color:	Colorless
Odor:	Vinegar-like
Odor Threshold:	No data available
pH:	3.0-5.0
Melting Point/Freezing Point:	No data available
Initial Boiling Point/Boiling Range:	No data available

Safety Data Sheet

Trade Name: Buffer N1

Revision Date: 6/7/2018

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
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 reaction known under conditions of normal use.
Chemical Stability:	Stable under recommended storage conditions.
Possibility of Hazardous Reactions:	No data available.
Conditions to Avoid:	Contact with incompatible materials, excess heat
Materials to Avoid:	Oxidizing agents, metals, amines, alcohols, peroxides, permanganates (e.g. potassium permanganates), soluble carbonates and phosphates, hydroxides, chlorinated compounds
Hazardous Decomposition Products:	Carbon oxides, nitrogen oxides (NO _x), hydrogen chloride gas

SECTION 11. TOXICOLOGICAL INFORMATION:

Information on Likely Routes of Exposure:

Inhalation:	Harmful if inhaled. Inhalation may cause lung and tooth damage.
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Ingestion: Harmful if swallowed.
Skin: Causes severe skin burns.
Eyes: Causes severe eye damage.

Information on Toxicological Effects:

Acute Toxicity:	Acetic acid	GNC
Oral LD50:	3,310 mg/kg (Rat)	1,900 mg/kg (Rat)
Inhalation LC50:	No data available	No data available
Dermal LD50:	1.06 L/kg (Rabbit)	2,000 mg/kg (Rabbit)
Other Information:	No data available	No data available
Skin Corrosion/Irritation:	Causes severe skin burns.	
Serious Eye Damage/Irritation:	Causes serious eye damage.	
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 mutagenic components identified.	

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: Respiratory tract irritation

Specific Target Organ Toxicity - Repeated Exposures: No data available

Aspiration Hazard: No data available

Signs and Symptoms of Exposure: Redness, pain, skin burns. Watering and irritation to eyes. Repeated exposures may cause erosion of exposed front teeth, darkening of the skin and chronic inflammation of the nose, throat and bronchial tubes.

Synergistic Effects: No data available

Additional Information: No data available

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SECTION 12. ECOLOGICAL INFORMATION:

Toxicity:	No data available
Persistence and Degradability:	No data available
Bioaccumulative Potential:	No data available
Mobility in Soil:	Product is water soluble and may spread in water systems.
PBT and vPvB Assessment:	No data available
Other Adverse Effects:	The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

SECTION 13. DISPOSAL CONSIDERATIONS:

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.
Contaminated Packaging:	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:

DOT:	Not considered dangerous goods.
IMDG:	Not considered dangerous goods.
IATA:	Not considered dangerous goods.
US State Regulations:	
California Prop. 65:	No ingredient regulated by CA Prop 65 present.
	Component(s) CAS-No.
Massachusetts RTK:	Acetic acid 64-19-7
New Jersey RTK:	Acetic acid 64-19-7
Pennsylvania RTK:	Acetic acid 64-19-7
Rhode Island RTK:	Acetic acid 64-19-7

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SECTION 15. REGULATORY INFORMATION:

US Federal Regulations:

OSHA Hazards:	Corrosive
Aggravated Medical Conditions:	May cause nervous system disturbances.
Symptoms of Overexposure:	
Inhalation:	Harmful if inhaled. Inhalation may cause lung and tooth damage.
Skin:	Causes severe skin burns.
Eyes:	Causes severe eye damage.
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, chronic health hazard

SECTION 16. OTHER INFORMATION:

Disclaimer:

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: Column Buffer

SECTION 1. IDENTIFICATION OF PRODUCT AND COMPANY:

Product Name: Column 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
Email:	Service@bioland-sci.com
Emergency Telephone:	1-562-377-2668

Recommended Use of the Chemical and Restrictions on Use:

Recommended Use: For research use only.

SECTION 2. HAZARDS IDENTIFICATION

Hazard Classification:

OSHA Hazards:	Corrosive to metals	Category 1
Health Hazards:	Skin irritation Eye irritation	Category 2 Category 2A

GHS Label Element:

Hazard Symbol:



Signal Word:

Warning

Hazard Statements:

H290 - May be corrosive to metals
H315 - Skin irritant
H319 - Eye irritant

Precautionary Statements:

P234 - Keep only in original container.
P264 - Wash skin thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P332 + P313 - If skin irritation occurs: Get medical advice/attention.
P337 + P313 - If skin irritation persists: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P390 - Absorb spillage to prevent material damage.

Potential Health Effects:

Aggravated Medical Conditions:

Symptoms of Overexposure:

Inhalation: May be harmful if inhaled.
Skin: Causes skin irritation.
Eyes: Causes eye irritation.
Ingestion: May be 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: N/A

Chemical Name	CAS No.	Concentration (%)
Sodium Hydroxide NaOH	1310-73-2	≥ 10-15%

SECTION 4. FIRST AID MEASURES

General Advice: Exit to a safe area. Consult a physician. Seek medical attention.

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If Inhaled:	Move to fresh air. If not breathing, give artificial respiration. Seek medical attention.
In Case of Skin Contact:	Exit to safe area. Remove contaminated clothing. Wash thoroughly with soap and water. Seek medical attention.
In Case of Eye Contact:	Flush eyes with clean water for a minimum of 15 minutes keeping eyes open. Seek medical attention. Continue rinsing eyes during transport to hospital.
If Swallowed:	Do NOT induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek medical attention.
Most Important Symptoms and Effects, Acute and Delayed:	Irritation of skin and eyes.
Recommendations for Immediate Medical Attention and Special Treatment:	

SECTION 5. FIREFIGHTING MEASURES

Conditions of Flammability:	Not flammable or combustible.
Suitable Extinguishing Media:	Dry powder, CO ₂ , water spray or alcohol-resistant foam.
Special Protective Equipment for Firefighters:	Wear self-contained breathing apparatus, if necessary.
Hazardous Combustion Products:	Sodium oxides
Further Information:	Prevent firefighting water from entering surface water or groundwater.

SECTION 6. ACCIDENTAL RELEASE MEASURES

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

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Emergency Procedures:

Evacuate personnel to safe areas and follow emergency response protocols.

Methods and Materials for Containment and Cleaning Up:

Use inert absorbent material to soak up spill. Dispose of hazardous waste.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling:

Handle in accordance with good chemical hygiene and safety practices. Avoid contact with skin and eyes. Avoid inhalation of vapors or mist.

Conditions for Safe Storage:

Keep containers tightly closed in a dry, cool and well-ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Incompatible Products:

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:

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

Hygiene Measures:

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

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

N/A

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Components with Workplace Control Parameters:

Components	CAS No.	Value	Control Parameters	Basis
Sodium Hydroxide	1310-73-2	TWA	2 mg/m ³	USA. Occupational Exposure Limits (OSHA)- Table Z-1 Limits for Air Contaminants
		C	2 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
Remarks:	Eye, skin, and upper respiratory tract irritation.			
		C	2 mg/m ³	USA. NIOSH Recommended Exposure Limits

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form: Liquid
Color: Colorless

Odor: No data available

Odor Threshold: No data available

pH: 12.0-14.0

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

Solubility:

Solubility in Water: No data available

Solubility (Other): No data available

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SECTION 10. STABILITY AND REACTIVITY:

Reactivity:	No data available
Chemical Stability:	Stable under recommended storage conditions.
Possibility of Hazardous Reactions:	No data available
Conditions to Avoid:	No data available
Materials to Avoid:	Strong oxidizing agents, strong acids, organic materials
Hazardous Decomposition Products:	Sodium oxides

SECTION 11. TOXICOLOGICAL INFORMATION:

Information on Likely Routes of Exposure:

Inhalation:	May be harmful if inhaled.
Ingestion:	May be harmful if swallowed.
Skin:	Causes skin irritation.
Eyes:	Causes eye irritation.

Information on Toxicological Effects:

Acute Toxicity:	
Oral LD50:	No data available
Inhalation LC50:	No data available
Dermal LD50:	67,500 mg/kg (Rabbit)
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
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.

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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

SECTION 12. TOXICOLOGICAL 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

SECTION 13. DISPOSAL CONSIDERATIONS:

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

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SECTION 14. TRANSPORT INFORMATION:

DOT:

Proper Shipping Name:	UN Number	Class	Packaging Group
Sodium hydroxide solution	1824	8 - Corrosive material (49CFR173.136)	III - Minor danger
Poison Inhalation Hazard:	No		

IMDG:

Proper Shipping Name	UN Number	Class	Packaging Group	EMS-No.
Sodium hydroxide solution	1824	8	III	F-A, S-B

IATA:

Proper Shipping Name	UN Number	Class	Packaging Group
Sodium hydroxide solution	1824	8	III

SECTION 15. REGULATORY INFORMATION:

US Federal Regulations:

OSHA Hazards:	Corrosive to metals
Aggravated Medical Conditions:	
Symptoms of Overexposure:	
Inhalation:	May be harmful if inhaled.
Skin:	Causes skin irritation.
Eyes:	Causes eye irritation.
Ingestion:	May be 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.	
New Jersey & Community RTK:	Component(s)	CAS-No.
	Sodium Hydroxide	1310-73-2
	Water	7732-18-5

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Massachusetts RTK:	Sodium Hydroxide	1310-73-2
Pennsylvania RTK:	Sodium Hydroxide	1310-73-2
	Water	7732-18-5
Rhode Island RTK:	Sodium Hydroxide	1310-73-2
	Water	7732-18-5

SECTION 16. OTHER INFORMATION:

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