

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**Product Identifier**

Product Name: HighPrep HMW DNA Kit

Intended Use for the Product:

Use of the substance/mixture: Research Use Only

Name, Address, and Telephone of the Responsible Party

Magbio Genomics
944 Clopper Road
Gaithersburg, MD 20878
USA (301) 302-0144

Emergency telephone number**Emergency number:**

In case of medical emergency, call 911. Contact your local Poison Control Center.

Section 2: List of Components

- HAS Buffer
- HTS Buffer
- HMW1 Buffer
- HMW2 Buffer
- MB Elution Buffer
- Pro K Solution
- MAG-HM1 Particles
- RNase A

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**Product Identifier****Component Name:** HAS Buffer**Intended Use for the Product:****Use of the substance/mixture:** Research Use Only**Name, Address, and Telephone of the Responsible Party**Magbio Genomics
944 Clopper Road
Gaithersburg, MD 20878
USA (301) 302-0144**Emergency telephone number****Emergency number:**

In case of medical emergency, call 911. Contact your local Poison Control Center.

Sect on 2: Hazards Identification**Classification of the substance or mixture****OSHA Hazards**

Target Organ Effect, Toxic by Ingestion, Irritant

Target Organs

Bone Marrow, Nerves

GHS-US Classification

Acute Toxicity, Oral (Category 4)

Acute Toxicity, Inhalation (Category 3)

Skin Irritation (Category 2)

Eye Irritation (Category 2A)

Label Elements**GHS – US labeling****Hazard Pictograms (GHS-US)****Signal Word (GHS-US)**

WARNING

Hazard Statements (GHS-US)

H302 Harmful if Swallowed

H315 Causes Skin Irritation

H319 Causes Serious Eye Irritation

H331 Toxic if Inhaled

Precautionary Statements (GHS-US)P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. P305+P351+P338
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
lenses, if present and easy to do. Continue rinsing.
P311 Call a POISON CENTER or doctor/physician.

HAS Buffer

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HMIS Classification (Scale 0-4)

Health Hazard 2
Flammability 0
Physical Hazards 0

NFPA Rating (Scale 0-4)

Health Hazard 2
Fire 0
Reactivity Hazard 0

Unknown acute toxicity (GHS-US)

Section 3: Composition/information on ingredients

Composition: Mixture of the substances listed below with nonhazardous additions.

| Name | Product Identifier | % | GHS-US classification |
|-------------------------|--|-------|---|
| Guanidine Hydrochloride | (CAS No.) 50-01-1 (EC No.) 200-002-3 (Index No.) 607-148-00-0 | 25-50 | Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; H302, H315, H319 |

Full text of H-phrases: see section 16

Section 4: First aid measures

Description of first aid measures

First Aid Measures General: Exit to a safe area. Consult a physician. Seek medical attention.

First Aid Measures after Inhalation: Move to fresh air. If not breathing, give artificial respiration. Seek medical attention

First Aid Measures after Skin Contact: Exit to safe area. Wash thoroughly with soap and water. Seek medical attention

First Aid Measures after Eye Contact: Flush eyes with clean water for a minimum of 15 minutes keeping eyes open. Seek medical attention.

First Aid Measures after Ingestion: Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek medical attention.

Most Important Symptoms and Effects, both acute and delayed

Symptoms/Injuries after skin contact: Harmful if absorbed through skin. May cause skin irritation

Symptoms/Injuries after inhalation: Toxic if Inhaled. May cause respiratory tract irritation.

Symptoms/Injuries after eye contact: Causes eye irritation

Symptoms/Injuries after ingestion: Harmful if swallowed

Other Symptoms/ Injuries: May cause nervous system disturbances in the case of an aggravated medical condition.

Indication of any medical attention and special treatment needed

If medical advice is needed, have product container or label at hand.

Section 5: Firefighting Measures

Extinguishing media

Suitable extinguishing media: Dry Powder, CO₂, Water Spray, or Regular Foam

Unsuitable extinguishing media:

Special Hazards arising from the substance or mixture

Flammability: Not flammable or combustible

Hazardous Combustion Products: Carbon oxides (CO, CO₂), Nitrogen oxides (NO_x), Hydrogen Chloride Gas.

Reactivity:

HAS Buffer

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Advice for Firefighters

Firefighting instructions: Prevent fire-fighting water from entering surface water or ground water.

Protection during firefighting: Wear self-contained breathing apparatus, if necessary

Sect on 6: Accidental release measures

Personal precautions, protective equipment, and emergency procedures

General Measures: 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.

Methods and material for containment and cleaning up

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

Reference to other sections

See heading 8, Exposure Controls and Personnel Protection

Sect on 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. Avoid inhalation of vapor or mist.

Conditions for safe storage, including any incompatibilities

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

Incompatible products: Strong oxidizing agents

Section 8: Exposure Controls/Personal Protection

Exposure Controls

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

Respiratory Protection

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



Hand Protection

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



Eye Protection

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



Skin and Body Protection

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



Hygiene Measures

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

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Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

| | |
|--------------------------------|-------------------|
| Physical State | Liquid |
| Color | Colorless |
| Odor | No data available |
| Odor Threshold | No data available |
| pH | No data available |
| Relative evaporation rate | No data available |
| Melting Point | No data available |
| Freezing Point | No data available |
| Boiling Point | No data available |
| Flash Point | No data available |
| Auto-ignition temperature | No data available |
| Decomposition Temperature | No data available |
| Flammability (Solid, Gas) | No data available |
| Vapor Pressure | No data available |
| Relative vapor density at 20°C | No data available |
| Relative Density | No data available |
| Density | No data available |
| Solubility | No data available |
| Log Pow | No data available |
| Log Kow | No data available |
| Viscosity, kinematic | No data available |
| Viscosity, dynamic | No data available |
| Explosive properties | No data available |
| Other Information | |

Section 10: Stability and reactivity

Reactivity

Chemical Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions: No data available

Conditions to Avoid: Heating

Incompatible Materials: Strong acids, strong oxidizing agents, organic materials

Hazardous Decomposition Products: Carbon oxides (COx), Nitrogen oxides (NOx), hydrogen chloride gas

Section 11: Toxicological Information

Information on Toxicological Effects

Acute Toxicity:

| | |
|-------------------------------------|-------------------|
| Oral LD50 | No data available |
| Inhalation LC50 | No data available |
| Dermal LD50 | No data available |
| Other Information on Acute Toxicity | No data available |

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Skin Corrosion/Irritation: No data available

Serious Eye Damage/Irritation: No data available

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

Germ Cell Mutagenicity: No data available

Carcinogenicity:

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

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

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

Reproductive Toxicity: No data available

Specific Target Organ Toxicity (Single Exposure) No data available

Specific Target Organ Toxicity (Repeated Exposure) No data available

Aspiration hazard: No data available

Potential Health Effects:

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion: Toxic if swallowed

Skin: May be harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Signs/Symptoms of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological Information

Toxicity: no data available

Persistence and Degradability: no data available

Bio accumulative Potential: no data available

Mobility in Soil: no data available

Other Adverse Effects: Harmful to aquatic life

Other Information

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.

Section 14: Transport Information

DOT (US): Not considered dangerous goods

IMDG: Not considered dangerous goods

IATA: Not considered dangerous goods

HAS Buffer

Safety Data Sheet

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Section 15: Regulatory Information

OSHA Hazards: Target organ effect, Toxic by ingestion, Irritant

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

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

SARA 311/312 Components: Acute Health Hazard, Chronic Health Hazard

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

California Prop. 65 Components: This product does not contain any chemicals listed by the State of California's Proposition 65.

Section 16: Other Information

GHS Full Text Phrases

| | |
|------------|-------------------------------|
| Acute Tox. | Acute Toxicity |
| Eye Irrit | Eye Irritation |
| H302 | Harmful if swallowed |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| Skin Irrit | Skin Irritation |

MagBio Genomics, Inc. does not make any representations, guaranties or warranties as to the accuracy of the information provided and is intended only to describe the product for the purposes of health, safety and environmental requirement. It is expressly understood and agreed that MagBio Genomics, Inc. shall in no way be deemed or held to be obligated, liable, or accountable upon or under any guaranties or warranties, express or implied, statutory, by operation of law, or otherwise, in any manner or form, including any implied warranty of merchantability or fitness for a particular purpose, that in any way relates to or arises out of the information provided in this Safety Data Sheet.

Sect on 1: Identification of the Substance Mixture and of the Com any/Undertaking**Product Identifier****Component Name:** HTS Buffer**Intended Use for the Product:****Use of the substance/mixture:** Research Use Only**Name, Address, and Telephone of the Responsible Party**MagBio Genomics
944 Clopper Road
Gaithersburg, MD 20878
(301) 302-0144**Emergency telephone number****Emergency number:**

In case of medical emergency, call 911. Contact your local Poison Control Center.

Sect on 2: Hazards Identification**Classification of the substance or mixture****OSHA Hazards**

No Known OSHA Hazards

GHS-US Classification

Not a dangerous substance according to GHS

Label Elements**GHS – US labeling****Hazard Pictograms (GHS-US)** n/a**Signal Word (GHS-US)** n/a**Hazard Statements (GHS-US)** n/a**Precautionary Statements (GHS-US)** n/a**HMIS Classification (Scale 0-4)**

Health Hazard 0

Flammability 0

Physical Hazards 0

NFPA Rating (Scale 0-4)

Health Hazard 0

Fire 0

Reactivity Hazard 0

Unknown acute toxicity (GHS-US)

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Section 3: Composition/information on ingredients

Composition: Mixture of substances listed below with nonhazardous additions.

| Name | Product Identifier | % | GHS-US classification |
|------|--------------------|-----|-----------------------|
| n/a | n/a | n/a | n/a |

Full text of H-phrases: see section 16

Section 4: First aid measures

Description of first aid measures

First Aid Measures General: Exit to a safe area. Consult a physician. Seek medical attention.

First Aid Measures after Inhalation: Move to fresh air. If not breathing, give artificial respiration. Seek medical attention

First Aid Measures after Skin Contact: Exit to safe area. Wash thoroughly with soap and water. Seek medical attention

First Aid Measures after Eye Contact: Flush eyes with clean water for a minimum of 15 minutes keeping eyes open. Seek medical attention

First Aid Measures after Ingestion: Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek medical attention

Most Important Symptoms and Effects, both acute and delayed

Symptoms/Injuries after skin contact: n/a

Symptoms/Injuries after inhalation: If not breathing give artificial respiration

Symptoms/Injuries after eye contact: n/a

Symptoms/Injuries after ingestion: n/a

Other Symptoms/ Injuries: n/a.

Indication of any medical attention and special treatment needed

If medical advice is needed, have product container or label at hand.

Section 5: Firefighting Measures

Extinguishing media

Suitable extinguishing media: Dry Powder, CO₂, Water Spray, or Alcohol-resistant foam

Unsuitable extinguishing media:

Special Hazards arising from the substance or mixture

Flammability: Not flammable or combustible

Hazardous Combustion Products: Sodium Oxides

Reactivity:

Advice for Firefighters

Firefighting instructions: Prevent fire-fighting water from entering surface water or ground water.

Protection during firefighting: Wear self-contained breathing apparatus, if necessary

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Methods and material for containment and cleaning up

Use inert absorbent material to soak up spill.

Reference to other sections

See heading 8, Exposure Controls and Personnel Protection

HTS Buffer

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Sect on 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.

Avoid inhalation of vapor or mist.

Conditions for safe storage, including any incompatibilities

No special storage conditions required

Section 8: Exposure Controls/Personal Protection

Exposure Controls

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

Respiratory Protection

No special protective equipment required

Hand Protection

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



Eye Protection

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



Skin and Body Protection

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



Hygiene Measures

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

Sect on 9: Physical and Chemical Properties

Information on basic physical and chemical properties

| | |
|---------------------------|-------------------|
| Physical State | Liquid |
| Color | Colorless |
| Odor | No data available |
| Odor Threshold | No data available |
| pH | 6.0-8.0 |
| Relative evaporation rate | No data available |
| Melting Point | No data available |
| Freezing Point | No data available |
| Boiling Point | No data available |
| Flash Point | No data available |

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| | |
|---------------------------------------|-------------------|
| Auto-ignition temperature | No data available |
| Decomposition Temperature | No data available |
| Flammability (Solid, Gas) | No data available |
| Vapor Pressure | No data available |
| Relative vapor density at 20°C | No data available |
| Relative Density | No data available |
| Density | No data available |
| Solubility | No data available |
| Log Pow | No data available |
| Log Kow | No data available |
| Viscosity, kinematic | No data available |
| Viscosity, dynamic | No data available |
| Explosive properties | No data available |
| Other Information | |

Section 10: Stability and reactivity

Reactivity

Chemical Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions: n/a

Conditions to Avoid: n/a

Incompatible Materials: n/a

Hazardous Decomposition Products: n/a

Section 11: Toxicological Information

Information on Toxicological Effects

Acute Toxicity:

| | |
|-------------------------------------|-------------------|
| Oral LD50 | No data available |
| Inhalation LC50 | No data available |
| Dermal LD50 | No data available |
| Other Information on Acute Toxicity | No data available |

Skin Corrosion/Irritation: No data available

Serious Eye Damage/Irritation: No data available

Respiratory or Skin Sensation: No data available

Germ Cell Mutagenicity: No data available

Carcinogenicity:

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

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

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

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

Reproductive Toxicity: No data available

Specific Target Organ Toxicity (Single Exposure) No data available

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According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Specific Target Organ Toxicity (Repeated Exposure) No data available

Aspiration hazard: No data available

Potential Health Effects:

Inhalation: n/a

Ingestion: n/a

Skin: n/a.

Eyes: n/a.

Signs/Symptoms of Exposure:

Section 12: Ecological Information

Toxicity: no data available

Persistence and Degradability: no data available

Bio accumulative Potential: no data available

Mobility in Soil: no data available

Other Adverse Effects: no data available

Other Information

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 (US): Not considered dangerous goods

IMDG: Not considered dangerous goods

IATA: Not considered dangerous goods

Section 15: Regulatory Information

OSHA Hazards: n/a

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

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

SARA 311/312 Components: Acute Health Hazard

California Prop. 65 Components: This product does not contain any chemicals listed by the State of California's Proposition 65.

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Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Section 16: Other Information

GHS Full Text Phrases

n/a

MagBio Genomics, Inc. does not make any representations, guaranties or warranties as to the accuracy of the information provided and is intended only to describe the product for the purposes of health, safety and environmental requirements. It is expressly understood and agreed that MagBio Genomics, Inc. shall in no way be deemed or held to be obligated, liable, or accountable upon or under any guaranties or warranties, express or implied, statutory, by operation of law, or otherwise, in any manner or form, including any implied warranty of merchantability or fitness for a particular purpose, that in any way relates to or arises out of the information provided in this Safety Data Sheet.

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**Product Identifier**

Component Name: HMW1 Buffer

Intended Use for the Product:

Use of the substance/mixture: Research Use Only

Name, Address, and Telephone of the Responsible Party

MagBio Genomics
944 Clopper Road
Gaithersburg, MD 20878
(301) 302-0144

Emergency telephone number**Emergency number:**

In case of medical emergency, call 911. Contact your local Poison Control Center.

Sect on 2: Hazards Identification**Classification of the substance or mixture****OSHA Hazards**

Target Organ Effect, Toxic by Ingestion, Irritant

GHS-US Classification

Acute toxicity, Oral (Category 4)
Acute toxicity, Inhalation (Category 3)
Skin irritation (Category 2)
Eye irritation (Category 2A)

Label Elements**GHS – US labeling****Hazard Pictograms (GHS-US)****Signal Word (GHS-US)**

WARNING

Hazard Statements (GHS-US)

H302 Harmful if swallowed
H315 Causes skin irritation
H319 Causes serious eye irritation
H331 Toxic if inhaled

Precautionary Statements (GHS-US)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P311 Call a POISON CENTER or doctor/physician

HMW1 Buffer

Safety Data Sheet

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HMIS Classification (Scale 0-4)

Health Hazard 2
Flammability 0
Physical Hazards 0

NFPA Rating (Scale 0-4)

Health Hazard 2
Fire 0
Reactivity Hazard 0

Unknown acute toxicity (GHS-US)

Section 3: Composition/information on ingredients

Composition: Mixture of substances listed below with nonhazardous additions.

| Name | Product Identifier | % | GHS-US classification |
|-------------------------|---|-------|---|
| Guanidine Hydrochloride | (CAS No.) 50-01-1 (EC No.) 200-002-3 (Index No.) 607-148-00-0 | 25-50 | Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; H302, H315, H319 |

Full text of H-phrases: see section 16

Section 4: First aid measures

Description of first aid measures

First Aid Measures General: Exit to a safe area. Consult a physician. Seek medical attention.

First Aid Measures after Inhalation: Move to fresh air. If not breathing, give artificial respiration. Seek medical attention

First Aid Measures after Skin Contact: Exit to safe area. Wash thoroughly with soap and water. Seek medical attention

First Aid Measures after Eye Contact: Flush eyes with clean water for a minimum of 15 minutes keeping eyes open. Seek medical attention

First Aid Measures after Ingestion: Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek medical attention

Most Important Symptoms and Effects, both acute and delayed

Symptoms/Injuries after skin contact: Harmful if absorbed through skin. May cause skin irritation

Symptoms/Injuries after inhalation: Toxic if Inhaled. May cause respiratory tract irritation

Symptoms/Injuries after eye contact: Causes eye irritation

Symptoms/Injuries after ingestion: Harmful if swallowed

Other Symptoms/ Injuries: May cause nervous system disturbances in the case of an aggravated medical condition.

Indication of any medical attention and special treatment needed

If medical advice is needed, have product container or label at hand.

Section 5: Firefighting Measures

Extinguishing media

Suitable extinguishing media: Dry Powder, CO₂, Water Spray, or Regular Foam

Unsuitable extinguishing media:

Special Hazards arising from the substance or mixture

Flammability: Not flammable or combustible

Hazardous Combustion Products: Carbon oxides (CO, CO₂), Nitrogen oxides (NO_x), Hydrogen Chloride gas

Reactivity:

Advice for Firefighters

Firefighting instructions: Prevent fire-fighting water from entering surface water or ground water.

Protection during firefighting: Wear self-contained breathing apparatus, if necessary

HMW1 Buffer

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Section 6: Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

General Measures: 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.

Methods and material for containment and cleaning up

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

Reference to other sections

See heading 8, Exposure Controls and Personnel Protection

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. Avoid inhalation of vapor or mist.

Conditions for safe storage, including any incompatibilities

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

Incompatible products: Strong oxidizing agents

Specific end use(s)

Section 8: Exposure Controls/Personal Protection

Exposure Controls

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

Respiratory Protection

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



Hand Protection

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



Eye Protection

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



Skin and Body Protection

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



Hygiene Measures

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

HMW1 Buffer

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

| | |
|--------------------------------|-------------------|
| Physical State | Liquid |
| Color | Colorless |
| Odor | No data available |
| Odor Threshold | No data available |
| pH | No data available |
| Relative evaporation rate | No data available |
| Melting Point | No data available |
| Freezing Point | No data available |
| Boiling Point | No data available |
| Flash Point | No data available |
| Auto-ignition temperature | No data available |
| Decomposition Temperature | No data available |
| Flammability (Solid, Gas) | No data available |
| Vapor Pressure | No data available |
| Relative vapor density at 20°C | No data available |
| Relative Density | No data available |
| Density | No data available |
| Solubility | No data available |
| Log Pow | No data available |
| Log Kow | No data available |
| Viscosity, kinematic | No data available |
| Viscosity, dynamic | No data available |
| Explosive properties | No data available |
| Other Information | |

Section 10: Stability and reactivity

Reactivity

Chemical Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions: No data available

Conditions to Avoid: Heating

Incompatible Materials: Strong acids, strong oxidizing agents, organic materials

Hazardous Decomposition Products: Carbon oxides (COx), Nitrogen oxides (NOx), hydrogen chloride gas

Section 11: Toxicological Information

Information on Toxicological Effects

Acute Toxicity:

| | |
|-------------------------------------|-------------------|
| Oral LD50 | No data available |
| Inhalation LC50 | No data available |
| Dermal LD50 | No data available |
| Other Information on Acute Toxicity | No data available |

HMW1 Buffer

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Skin Corrosion/Irritation: No data available

Serious Eye Damage/Irritation: No data available

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

Germ Cell Mutagenicity: No data available

Carcinogenicity:

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

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

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

Reproductive Toxicity: No data available

Specific Target Organ Toxicity (Single Exposure) No data available

Specific Target Organ Toxicity (Repeated Exposure) No data available

Aspiration hazard: No data available

Potential Health Effects:

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion: Toxic if swallowed

Skin: May be harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Signs/Symptoms of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological Information

Toxicity: no data available

Persistence and Degradability: no data available

Bio accumulative Potential: no data available

Mobility in Soil: no data available

Other Adverse Effects: Harmful to aquatic life

Other Information

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.

Section 14: Transport Information

DOT (US): Not considered dangerous goods

IMDG: Not considered dangerous goods

IATA: Not considered dangerous goods

HMW1 Buffer

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Section 15: Regulatory Information

OSHA Hazards: Target Organ Effect, Toxic by ingestion, Irritant

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

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

SARA 311/312 Components: Acute Health Hazard, Chronic Health Hazard

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

California Prop. 65 Components: This product does not contain any chemicals listed by the State of California's Proposition 65.

Section 16: Other Information

GHS Full Text Phrases

| | |
|-------------|-------------------------------|
| Acute Tox. | Acute Toxicity |
| Eye Irrit | Eye Irritation |
| H302 | Harmful if swallowed |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| Skin Irrit. | Causes serious eye irritation |

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Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**Product Identifier**

Component Name: HMW2 Buffer

Intended Use for the Product:

Use of the substance/mixture: Research Use Only

Name, Address, and Telephone of the Responsible Party

MagBio Genomics
944 Clopper Road
Gaithersburg, MD 20878
(301) 302-0144

Emergency telephone number**Emergency number:**

In case of medical emergency, call 911. Contact your local Poison Control Center.

Sect on 2: Hazards Identification**Classification of the substance or mixture****OSHA Hazards**

Target Organ Effect, Toxic by Ingestion, Irritant

GHS-US Classification

Acute toxicity, Oral (Category 4)
Acute toxicity, Inhalation (Category 3)
Skin irritation (Category 2)
Eye irritation (Category 2A)

Label Elements**GHS – US labeling****Hazard Pictograms (GHS-US)****Signal Word (GHS-US)**

WARNING

Hazard Statements (GHS-US)

H302 Harmful if swallowed
H315 Causes skin irritation
H319 Causes serious eye irritation
H331 Toxic if inhaled

Precautionary Statements (GHS-US)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P311 Call a POISON CENTER or doctor/physician

HMW2 Buffer

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

HMIS Classification (Scale 0-4)

Health Hazard 2
Flammability 0
Physical Hazards 0

NFPA Rating (Scale 0-4)

Health Hazard 2
Fire 0
Reactivity Hazard 0

Unknown acute toxicity (GHS-US)

Section 3: Composition/information on ingredients

Composition: Mixture of substances listed below with nonhazardous additions.

| Name | Product Identifier | % | GHS-US classification |
|-------------------------|---|-------|---|
| Guanidine Hydrochloride | (CAS No.) 50-01-1 (EC No.) 200-002-3 (Index No.) 607-148-00-0 | 25-50 | Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; H302, H315, H319 |

Full text of H-phrases: see section 16

Section 4: First aid measures

Description of first aid measures

First Aid Measures General: Exit to a safe area. Consult a physician. Seek medical attention.

First Aid Measures after Inhalation: Move to fresh air. If not breathing, give artificial respiration. Seek medical attention

First Aid Measures after Skin Contact: Exit to safe area. Wash thoroughly with soap and water. Seek medical attention

First Aid Measures after Eye Contact: Flush eyes with clean water for a minimum of 15 minutes keeping eyes open. Seek medical attention

First Aid Measures after Ingestion: Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek medical attention

Most Important Symptoms and Effects, both acute and delayed

Symptoms/Injuries after skin contact: Harmful if absorbed through skin. May cause skin irritation

Symptoms/Injuries after inhalation: Toxic if Inhaled. May cause respiratory tract irritation

Symptoms/Injuries after eye contact: Causes eye irritation

Symptoms/Injuries after ingestion: Harmful if swallowed

Other Symptoms/ Injuries: May cause nervous system disturbances in the case of an aggravated medical condition.

Indication of any medical attention and special treatment needed

If medical advice is needed, have product container or label at hand.

Section 5: Firefighting Measures

Extinguishing media

Suitable extinguishing media: Dry Powder, CO₂, Water Spray, or Regular Foam

Unsuitable extinguishing media:

Special Hazards arising from the substance or mixture

Flammability: Not flammable or combustible

Hazardous Combustion Products: Carbon oxides (CO, CO₂), Nitrogen oxides (NO_x), Hydrogen Chloride gas

Reactivity:

Advice for Firefighters

Firefighting instructions: Prevent fire-fighting water from entering surface water or ground water.

Protection during firefighting: Wear self-contained breathing apparatus, if necessary

HMW2 Buffer

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Section 6: Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

General Measures: 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.

Methods and material for containment and cleaning up

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

Reference to other sections

See heading 8, Exposure Controls and Personnel Protection

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. Avoid inhalation of vapor or mist.

Conditions for safe storage, including any incompatibilities

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

Incompatible products: Strong oxidizing agents

Specific end use(s)

Section 8: Exposure Controls/Personal Protection

Exposure Controls

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

Respiratory Protection

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



Hand Protection

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



Eye Protection

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



Skin and Body Protection

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



Hygiene Measures

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

HMW2 Buffer

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

| | |
|--------------------------------|-------------------|
| Physical State | Liquid |
| Color | Colorless |
| Odor | No data available |
| Odor Threshold | No data available |
| pH | No data available |
| Relative evaporation rate | No data available |
| Melting Point | No data available |
| Freezing Point | No data available |
| Boiling Point | No data available |
| Flash Point | No data available |
| Auto-ignition temperature | No data available |
| Decomposition Temperature | No data available |
| Flammability (Solid, Gas) | No data available |
| Vapor Pressure | No data available |
| Relative vapor density at 20°C | No data available |
| Relative Density | No data available |
| Density | No data available |
| Solubility | No data available |
| Log Pow | No data available |
| Log Kow | No data available |
| Viscosity, kinematic | No data available |
| Viscosity, dynamic | No data available |
| Explosive properties | No data available |
| Other Information | |

Section 10: Stability and reactivity

Reactivity

Chemical Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions: No data available

Conditions to Avoid: Heating

Incompatible Materials: Strong acids, strong oxidizing agents, organic materials

Hazardous Decomposition Products: Carbon oxides (CO_x), Nitrogen oxides (NO_x), hydrogen chloride gas

Section 11: Toxicological Information

Information on Toxicological Effects

Acute Toxicity:

| | |
|-------------------------------------|-------------------|
| Oral LD50 | No data available |
| Inhalation LC50 | No data available |
| Dermal LD50 | No data available |
| Other Information on Acute Toxicity | No data available |

HMW2 Buffer

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Skin Corrosion/Irritation: No data available

Serious Eye Damage/Irritation: No data available

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

Germ Cell Mutagenicity: No data available

Carcinogenicity:

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

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

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

Reproductive Toxicity: No data available

Specific Target Organ Toxicity (Single Exposure) No data available

Specific Target Organ Toxicity (Repeated Exposure) No data available

Aspiration hazard: No data available

Potential Health Effects:

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion: Toxic if swallowed

Skin: May be harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Signs/Symptoms of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological Information

Toxicity: no data available

Persistence and Degradability: no data available

Bio accumulative Potential: no data available

Mobility in Soil: no data available

Other Adverse Effects: Harmful to aquatic life

Other Information

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.

Section 14: Transport Information

DOT (US): Not considered dangerous goods

IMDG: Not considered dangerous goods

IATA: Not considered dangerous goods

HMW2 Buffer

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Section 15: Regulatory Information

OSHA Hazards: Target Organ Effect, Toxic by ingestion, Irritant

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

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

SARA 311/312 Components: Acute Health Hazard, Chronic Health Hazard

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

California Prop. 65 Components: This product does not contain any chemicals listed by the State of California's Proposition 65.

Section 16: Other Information

GHS Full Text Phrases

| | |
|-------------|-------------------------------|
| Acute Tox. | Acute Toxicity |
| Eye Irrit | Eye Irritation |
| H302 | Harmful if swallowed |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| Skin Irrit. | Causes serious eye irritation |

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Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**Product Identifier**

Component Name: Pro K Solution

Intended Use for the Product:

Use of the substance/mixture: Research use only

Name, Address, and Telephone of the Responsible Party

MagBio Genomics
944 Clopper Road
Gaithersburg, MD 20878
(301) 302-0144

Emergency telephone number

Emergency number:

In case of medical emergency, call 911. Contact your local Poison Control Center.

Section 2: Hazards Identification**Classification of the substance or mixture****OSHA Hazards**

Target organ effect
Respiratory Sensitizer
Irritant

GHS-US Classification

Skin Irritation (Category 2)
Skin Sensitizer (Category 1)
Eye Irritation (Category 2)
Respiratory Sensitization (Category 1)

Label Elements**GHS – US labeling****Hazard Pictograms (GHS-US)****Signal Word (GHS-US)**

DANGER

Hazard Statements (GHS-US)

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

Precautionary Statements (GHS-US)

P280 Wear protective gloves/protective clothing/eye protection/face protection
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

HMIS Classification (Scale 0-4)

Health Hazard 2
Flammability 1
Physical Hazards 0

NFPA Rating (Scale 0-4)

Health Hazard 2
Fire 1
Reactivity Hazard 0

Unknown acute toxicity (GHS-US)

Section 3: Composition/information on ingredients

Composition: Mixture of substances listed below with nonhazardous additions.

| Name | Product Identifier | % | GHS-US classification |
|--------------|---|-------|--|
| Proteinase K | (CAS No.) 39450-01-6 (EC No.) 254-457-8 (Index No.) 647-014-00-9 | 1-5 | Skin Irrit.2, Eye Irrit.2, Resp. Sens.1, Skin Irrit.1, STOT SE 3, H315, H 319, H 334, H335 |
| Glycerol | (CAS No.) 56-81-5 (EC No.) 200-289-5 | 30-60 | |

Full text of H-phrases: see section 16

Section 4: First aid measures

Description of first aid measures

First Aid Measures General: Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance

First Aid Measures after Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

First Aid Measures after Skin Contact: Wash off with soap and plenty of water. Consult a physician.

First Aid Measures after Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician

First Aid Measures after Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

Most Important Symptoms and Effects, both acute and delayed

Symptoms/Injuries: May be harmful if absorbed through skin. Causes skin irritation.

Symptoms/Injuries after inhalation: May cause respiratory tract irritation

Symptoms/Injuries after eye contact: Causes eye irritation.

Symptoms/Injuries after ingestion: May be harmful if swallowed.

Indication of any medical attention and special treatment needed

If medical advice is needed, have product container or label at hand.

Section 5: Firefighting Measures

Extinguishing media

Suitable extinguishing media: Dry powder, CO₂, water spray, or alcohol-resistant foam.

Unsuitable extinguishing media:

Special Hazards arising from the substance or mixture

Flammability: Not flammable or combustible.

Hazardous Combustion Products: n/a

Reactivity:

Pro K Solution

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Advice for Firefighters

Firefighting instructions:

Protection during firefighting: Wear self-contained breathing apparatus, if necessary.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

Environmental Precautions

Do not let product enter drains

Methods and material for containment and cleaning up

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

Reference to other sections

See heading 8, Exposure Controls and Personnel Protection

Section 7: Handling and Storage

Precautions for safe handling

Avoid contact with skin and eyes

Conditions for safe storage, including any incompatibilities

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

Incompatible products: n/a

Specific end use(s)

Section 8: Exposure Controls/Personal Protection

Exposure Controls

| Components | CAS-No. | Value | Control Parameters | Basis |
|------------|---------|-------|----------------------|---|
| Glycerol | 56-81-5 | TWA | 10 mg/m ³ | USA. OSHA - TABLE Z-1 Limits for Air Contaminants -1910.1000 |
| | | TWA | 5 mg/m ³ | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| | | TWA | 10 mg/m ³ | USA. ACGIH Threshold Limit Values (TLV) |

Pro K Solution

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Respiratory Protection

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



Hand Protection

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



Eye Protection

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



Skin and Body Protection

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



Hygiene Measures

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

Sect on 9: Physical and Chemical Properties

Information on basic physical and chemical properties

| | |
|--------------------------------|---------------------|
| Physical State | Liquid |
| Color | Clear/Slight Yellow |
| Odor | No data available |
| Odor Threshold | No data available |
| pH | No data available |
| Relative evaporation rate | No data available |
| Melting Point | No data available |
| Freezing Point | No data available |
| Boiling Point | No data available |
| Flash Point | No data available |
| Auto-ignition temperature | No data available |
| Decomposition Temperature | No data available |
| Flammability (Solid, Gas) | No data available |
| Vapor Pressure | No data available |
| Relative vapor density at 20°C | No data available |
| Relative Density | No data available |
| Density | No data available |
| Solubility | No data available |
| Log Pow | No data available |
| Log Kow | No data available |
| Viscosity, kinematic | No data available |
| Viscosity, dynamic | No data available |
| Explosive properties | No data available |
| Other Information | |

Pro K Solution

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Section 10: Stability and reactivity

Reactivity

Chemical Stability: Stable under recommended conditions

Possibility of Hazardous Reactions n/a

Conditions to Avoid n/a

Incompatible Materials n/a

Hazardous Decomposition Products n/a

Section 11: Toxicological Information

Information on Toxicological Effects

| Acute Toxicity: | Proteinase K | Glycerol |
|-------------------------------------|-------------------|------------------------|
| Oral LD50 | No data available | 12,600 mg/kg (rat) |
| Inhalation LC50 | No data available | |
| Dermal LD50 | No data available | >10,000 mg/kg (Rabbit) |
| Other information on Acute Toxicity | No data available | |

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)

Respiratory or Skin Sensation: No data available

Germ Cell Mutagenicity: No data available

Carcinogenicity:

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

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

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

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

Reproductive Toxicity: No data available

Specific Target Organ Toxicity (Single Exposure) No data available

Specific Target Organ Toxicity (Repeated Exposure) No data available

Aspiration hazard: No data available

Potential Health Effects:

Inhalation: May be harmful if inhaled

Ingestion: May be harmful if swallowed

Skin: May be harmful if absorbed through skin

Eyes: Causes eye irritation

Section 12: Ecological Information

Toxicity

To Fish

- >5,000 mg/L *Carassius Auratus* (Goldfish)
- 44,000 mg/L *Pimephales Promelas* (Fathead Minnow)
- >100,100 mg/L other fish
- 67,500 mg/L *Oncorhynchus Mykiss* (Rainbow Trout)

Persistence and Degradability: No data available

Pro K Solution

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Bio accumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: No data available

Other Information: No data available

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 (US): Not considered dangerous goods

IMDG: Not considered dangerous goods

IATA: Not considered dangerous goods

Section 15: Regulatory Information

OSHA Hazards: Target Organ Effect, Respiratory sensitizer, Irritant

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

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

SARA 311/312 Components: Acute Health Hazard

| Right to Know Components | Components | CAS-No. |
|--------------------------|--------------|------------|
| Massachusetts | Glycerol | 56-81-5 |
| | Proteinase K | 39450-01-6 |
| Pennsylvania | Glycerol | 56-81-5 |
| | Proteinase K | 39450-01-6 |
| New Jersey | Glycerol | 56-81-5 |
| | Proteinase K | 39450-01-6 |

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

Section 16: Other Information

GHS Full Text Phrases: n/a

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Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**Product Identifier**

Component Name: MB Elution Buffer

Intended Use for the Product:

Use of the substance/mixture: Research use only

Name, Address, and Telephone of the Responsible Party

MagBio Genomics
944 Clopper Road
Gaithersburg, MD 20878
(301) 302-0144

Emergency telephone number**Emergency number:**

In case of medical emergency, call 911. Contact your local Poison Control Center.

Sect on 2: Hazards Identification**Classification of the substance or mixture****OSHA Hazards**

No known OSHA hazards

GHS-US Classification

Not a dangerous substance according to GHS

Label Elements**GHS – US labeling**

Hazard Pictograms (GHS-US) n/a

Signal Word (GHS-US) n/a

Hazard Statements (GHS-US) n/a

Precautionary Statements (GHS-US) n/a

HMIS Classification (Scale 0-4)

Health Hazard 0

Flammability 0

Physical Hazards 0

NFPA Rating (Scale 0-4)

Health Hazard 0

Fire 0

Reactivity Hazard 0

Unknown acute toxicity (GHS-US)

MB Elution Buffer

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Section 3: Composition/information on ingredients

Composition: Mixture of substances listed below with nonhazardous additions.

| Name | Product Identifier | % | GHS-US classification |
|------|--------------------|-----|-----------------------|
| n/a | n/a | n/a | n/a |

Full text of H-phrases: see section 16

Section 4: First aid measures

Description of first aid measures

First Aid Measures General: Wear protective gloves/protective clothing/eye protection/face protection

First Aid Measures after Inhalation: If not breathing, give artificial respiration

First Aid Measures after Skin Contact: Wash with soap and water

First Aid Measures after Eye Contact: Remove contact lenses if present and easy to do. Continue rinsing

First Aid Measures after Ingestion: n/a

Most Important Symptoms and Effects, both acute and delayed

Symptoms/Injuries:

Symptoms/Injuries after inhalation: May cause respiratory tract irritation

Symptoms/Injuries after eye contact:

Symptoms/Injuries after ingestion: May be harmful if swallowed

Indication of any medical attention and special treatment needed

If medical advice is needed, have product container or label at hand.

Section 5: Firefighting Measures

Extinguishing media

Suitable extinguishing media: Dry powder, CO2, water spray, or alcohol-resistant foam

Unsuitable extinguishing media:

Special Hazards arising from the substance or mixture

Flammability: Not flammable or combustible

Hazardous Combustion Products: n/a

Reactivity:

Advice for Firefighters

Firefighting instructions: Prevent fire-fighting water from entering surface water or groundwater

Protection during firefighting: Wear self-contained breathing apparatus, if necessary

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

General Measures:

Environmental Precautions:

Methods and material for containment and cleaning up:

Reference to other sections

See heading 8, Exposure Controls and Personnel Protection

MB Elution Buffer

Safety Data Sheet

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Sect on 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. Avoid inhalation of vapor or mist.




Conditions for safe storage, including any incompatibilities

Storage conditions: No special storage conditions required

Incompatible products: n/a

Specific end use(s)

Sect on 8: Exposure controls/ personal protection

| | | |
|---------------------------------|---|---|
| Exposure Controls | This product does not contain any substances with occupational exposure limit values. | |
| Respiratory Protection | No special protective equipment required | |
| Hand Protection | Use gloves when handling this product. Inspect gloves prior to use for any visible damage. Use proper glove removal technique to prevent contact with skin. Dispose of gloves in accordance with applicable laws. Wash and dry hands after use. |  |
| Eye Protection | Use a face shield and/or safety goggles when handling this product. Use eye ware that has been approved by NIOSH. |  |
| Skin and Body Protection | Wear appropriate laboratory attire when handling this product such as gloves, long pants, closed-toe shoes, and laboratory coat. |  |
| Hygiene Measures | Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after using this product. | |

Sect on 9: Physical and Chemical Properties

Information on basic physical and chemical properties

| | |
|----------------------------------|-------------------|
| Physical State | Liquid |
| Color | Colorless |
| Odor | No data available |
| Odor Threshold | No data available |
| pH | 8.0-9.0 |
| Relative evaporation rate | No data available |
| Melting Point | No data available |
| Freezing Point | No data available |
| Boiling Point | No data available |
| Flash Point | No data available |
| Auto-ignition temperature | No data available |
| Decomposition Temperature | No data available |
| Flammability (Solid, Gas) | No data available |

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| | |
|--------------------------------|-------------------|
| Vapor Pressure | No data available |
| Relative vapor density at 20°C | No data available |
| Relative Density | No data available |
| Density | No data available |
| Solubility | No data available |
| Log Pow | No data available |
| Log Kow | No data available |
| Viscosity, kinematic | No data available |
| Viscosity, dynamic | No data available |
| Explosive properties | No data available |
| Other Information | |

Section 10: Stability and reactivity

Reactivity

Chemical Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions: n/a

Conditions to Avoid: n/a

Incompatible Materials: n/a

Hazardous Decomposition Products: n/a

Section 11: Toxicological Information

Information on Toxicological Effects

Acute Toxicity:

| | |
|-------------------------------------|-------------------|
| Oral LD50 | No data available |
| Inhalation LC50 | No data available |
| Dermal LD50 | No data available |
| Other Information on Acute Toxicity | No data available |

Skin Corrosion/Irritation: no data available

Serious Eye Damage/Irritation: no data available

Respiratory or Skin Sensation: no data available

Germ Cell Mutagenicity: no data available

Carcinogenicity:

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

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

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

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

Reproductive Toxicity: no data available

Specific Target Organ Toxicity (Single Exposure) no data available

Specific Target Organ Toxicity (Repeated Exposure) no data available

Aspiration hazard: no data available

Potential Health Effects:

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Inhalation: n/a
Ingestion: n/a
Skin: n/a
Eyes: n/a

Section 12: Ecological Information

Toxicity: No data available
Persistence and Degradability: No data available
Bio accumulative Potential: No data available
Mobility in Soil: No data available
Other Adverse Effects: No data available
Other Information: No data available

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 (US): Not considered dangerous goods
IMDG: Not considered dangerous goods
IATA: Not considered dangerous goods

Section 15: Regulatory Information

OSHA Hazards: n/a
SARA 302 Components: No chemicals in this product are required to be reported according to SARA Title III, Section 302.
SARA 313 Components: This product does not contain any chemicals with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Components: Acute Health Hazard

| Right to Know Components | Components | CAS-No. |
|--------------------------|------------|----------|
| Massachusetts | Water | 7732-1-5 |
| Pennsylvania | Water | 7732-1-5 |
| New Jersey | Water | 7732-1-5 |

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

MB Elution Buffer

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Section 16: Other Information

GHS Full Text Phrases: n/a

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Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**Product Identifier****Component Name:** MAG-HM1 Particles**Intended Use for the Product:****Use of the substance/mixture:** Research Use Only**Name, Address, and Telephone of the Responsible Party**MagBio Genomics
944 Clopper Road
Gaithersburg, MD 20878
(301) 302-0144**Emergency telephone number****Emergency number:**

In case of medical emergency, call 911. Contact your local Poison Control Center.

Sect on 2: Hazards Identification**Classification of the substance or mixture****OSHA Hazards**

No Known OSHA Hazards

GHS-US Classification

Not a dangerous substitute according to GHS

Label Elements**GHS – US labeling****Hazard Pictograms (GHS-US)** n/a**Signal Word (GHS-US)** n/a**Hazard Statements (GHS-US)** n/a**Precautionary Statements (GHS-US)** n/a**HMIS Classification (Scale 0-4)**Health Hazard 1
Flammability 0
Physical Hazards 2**NFPA Rating (Scale 0-4)**Health Hazard
Fire 0
Reactivity Hazard 0**Unknown acute toxicity (GHS-US)**

MAG-HM1 Particles

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Section 3: Composition/information on ingredients

Composition: Mixture of substances listed below with nonhazardous additions.

| Hazardous Ingredients | Chemical Name | % by weight | Hazard Classification of Pure Ingredients | |
|---|---------------|-------------|---|---|
| | | | EU 1272/2008 CLP/GHS | GHS |
| Sodium Azide CAS # 26628-22-8 EINECS # 247-852-1 Index # 011-004-00-7 | | 0.05 | Acute Tox. Oral 2, H300 Aquatic Acute 1, H400 Aquatic Long term 1, H410 | Acute Tox. Oral 2, H300 Aquatic Acute 1, H400 Aquatic Long term 1, H410 |

Section 4: First aid measures

Description of first aid measures

First Aid Measures General: Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures after Inhalation: If individual is not breathing, begin artificial respiration immediately and obtain medical attention.

First Aid Measures after Skin Contact: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If pain or irritation occurs, obtain medical attention.

First Aid Measures after Eye Contact: If product enters eyes, wash eyes gently under running water for 15 minutes or longer, making sure that the eyelids are held open. If pain or irritation occurs, obtain medical attention.

First Aid Measures after Ingestion: If ingested, wash mouth out with water. If irritation or discomfort occurs, seek medical attention.

Most Important Symptoms and Effects, both acute and delayed

The known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

Indication of any medical attention and special treatment needed

If medical advice is needed, have product container or label at hand.

Section 5: Firefighting Measures

Extinguishing media

Suitable extinguishing media: Dry Powder, CO₂, Water Spray, or Alcohol resistant foam

Unsuitable extinguishing media:

Special Hazards arising from the substance or mixture Flammability: Not flammable or combustible

Hazardous Combustion Products: Sodium oxides.

Reactivity: Hydrogen chloride gas, Iron oxides, silicon oxides, Cesium/cesium oxides

Advice for Firefighters

Firefighting instructions: Prevent fire-fighting water from entering surface water or ground water.

Protection during firefighting: Wear self-contained breathing apparatus, if necessary

Section 6: Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

General Measures: Use good laboratory procedures, avoid eye and skin contact

Environmental Precautions

Contain spill to prevent migration

Methods and material for containment and cleaning up

Absorb spilled material with an appropriate inert, non-flammable absorbent and dispose of according to local regulations.

Reference to other sections

See heading 8, Exposure Controls and Personnel Protection

MAG-HM1 Particles

Safety Data Sheet

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Section 7: Handling and Storage

Precautions for safe handling

Use good laboratory procedures, avoid eye and skin contact.

Conditions for safe storage, including any incompatibilities

Storage conditions: Keep away from incompatible materials. To maintain efficacy, store according to the instructions on product labeling.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

Section 8: Exposure Controls/Personal Protection

Exposure Controls

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

Respiratory Protection

No special protective equipment required.

Hand Protection

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



Eye Protection

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



Skin and Body Protection

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



Hygiene Measures

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

Sect on 9: Physical and Chemical Properties

Information on basic physical and chemical properties

| | |
|---------------------------|-------------------|
| Physical State | Liquid |
| Color | Colorless |
| Odor | No data available |
| Odor Threshold | No data available |
| pH | 6.0-8.0 |
| Relative evaporation rate | No data available |
| Melting Point | No data available |
| Freezing Point | No data available |
| Boiling Point | No data available |
| Flash Point | No data available |
| Auto-ignition temperature | No data available |
| Decomposition Temperature | No data available |
| Flammability (Solid, Gas) | No data available |
| Vapor Pressure | No data available |

MAG-HM1 Particles

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

| | |
|--------------------------------|-------------------|
| Relative vapor density at 20°C | No data available |
| Relative Density | No data available |
| Density | No data available |
| Solubility | No data available |
| Log Pow | No data available |
| Log Kow | No data available |
| Viscosity, kinematic | No data available |
| Viscosity, dynamic | No data available |
| Explosive properties | No data available |
| Other Information | |

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

Incompatible Materials: Strong oxidizing agents

Hazardous Decomposition Products: Hazardous decomposition products formed under fire conditions. - Hydrogen chloride gas, Iron oxides, silicon oxides, Cesium/cesium oxides. In the event of fire: see section 5

Section 11: Toxicological Information

Information on Toxicological Effects

Acute Toxicity:

| | |
|-------------------------------------|-------------------|
| Oral LD50 | No data available |
| Inhalation LC50 | No data available |
| Dermal LD50 | No data available |
| Other Information on Acute Toxicity | No data available |

Skin Corrosion/Irritation: No data available

Serious Eye Damage/Irritation: No data available

Respiratory or Skin Sensation: No data available

Germ Cell Mutagenicity: No data available

Carcinogenicity:

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

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

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

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

Reproductive Toxicity: No data available

Specific Target Organ Toxicity (Single Exposure) No data available

Specific Target Organ Toxicity (Repeated Exposure) No data available

Aspiration hazard: No data available

Potential Health Effects:

Inhalation: n/a

MAG-HM1 Particles

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According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Ingestion: n/a
Skin: n/a
Eyes: n/a

Section 12: Ecological Information

Toxicity: no data available
Persistence and Degradability: no data available
Bio accumulative Potential: no data available
Mobility in Soil: no data available
Other Adverse Effects: no data available
Other Information

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 (US): Not considered dangerous goods
IMDG: Not considered dangerous goods
IATA: Not considered dangerous goods

Section 15: Regulatory Information

OSHA Hazards: n/a
SARA 302 Components: No chemicals in this product are required to be reported according to SARA Title III, Section 302.
SARA 313 Components: This product does not contain any chemicals with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Components: Acute Health Hazard

| Right to Know Components | Components | CAS-No. |
|--------------------------|--------------|------------|
| Massachusetts | Sodium Azide | 26628-22-8 |
| Pennsylvania | Sodium Azide | 26628-22-8 |
| New Jersey | Sodium Azide | 26628-22-8 |

California Prop. 65 Components: This product does not contain any chemicals listed by the State of California's Proposition 65.

Section 16: Other Information

GHS Full Text Phrases
n/a

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RNase A

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

Product Identifier

Component Name: RNase A

Intended Use for the Product:

Use of the substance/mixture: Research Use Only

Name, Address, and Telephone of the Responsible Party

Magbio Genomics
944 Clopper Road
Gaithersburg, MD 20878
(301) 302-0144

Emergency telephone number

Emergency number:

In case of medical emergency, call 911. Contact your local Poison Control Center.

Section 2: Hazards Identification

Classification of the substance or mixture

OSHA Hazards

Target Organ Effect: Kidney

GHS-US Classification

Skin Irritation
Eye Irritation

Label Elements

GHS – US labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

WARNING

Hazard Statements (GHS-US)

H316 Causes mild skin irritation
H320 Causes eye irritation

Precautionary Statements (GHS-US)

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.

HMIS Classification (Scale 0-4)

Health Hazard 0
Flammability 0
Physical Hazards 0

NFPA Rating (Scale 0-4)

Health Hazard 0
Fire 0
Reactivity Hazard 0

Unknown acute toxicity (GHS-US)

RNase A

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Section 3: Composition/information on ingredients

Composition: Mixture of substances listed below with nonhazardous additions.

Section 3: Composition/information on ingredients

| Name | Product Identifier | % | GHS-US classification |
|----------|---|-------|-----------------------|
| Glycerol | (CAS No.) 56-81-5 (EC No.) 200-289-5 | 25-50 | |

Full text of H-phrases: see section 16

Section 4: First aid measures

Description of first aid measures

First Aid Measures General: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

First Aid Measures after Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician

First Aid Measures after Skin Contact: Wash off with soap and plenty of water. Consult a physician

First Aid Measures after Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

First Aid Measures after Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

Most Important Symptoms and Effects, both acute and delayed

Symptoms/Injuries after skin contact: May be harmful if absorbed through skin. Causes skin irritation

Symptoms/Injuries after inhalation: May cause respiratory tract irritation

Symptoms/Injuries after eye contact: Causes eye irritation

Symptoms/Injuries after ingestion: May be harmful if swallowed

Other Symptoms/ Injuries:

Indication of any medical attention and special treatment needed

If medical advice is needed, have product container or label at hand.

Section 5: Firefighting Measures

Extinguishing media

Suitable extinguishing media: Dry Powder, CO₂, Water Spray, or Alcohol Resistant Foam

Unsuitable extinguishing media:

Special Hazards arising from the substance or mixture

Flammability: Not flammable or combustible

Hazardous Combustion Products: Sodium Oxides

Reactivity:

Advice for Firefighters

Firefighting instructions: Prevent fire-fighting water from entering surface water or ground water.

Protection during firefighting: Wear self-contained breathing apparatus, if necessary

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

General Measures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Environmental Precautions

Do not let product enter drains.

RNase A

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Methods and material for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

See heading 8, Exposure Controls and Personnel Protection

Section 7: Handling and Storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Conditions for safe storage, including any incompatibilities

Storage conditions: Keep containers tightly closed in a dry, cool, and well-ventilated place. Recommended storage temperature 2-8°C.

Incompatible products: n/a

Specific end use(s)

Section 8: Exposure controls/ personal protection

Components with Workplace Control Parameters

| Components | CAS-No. | Value | Control Parameters | Basis |
|------------|---------|-------|---------------------|---|
| Glycerol | 56-81-5 | TWA | 10mg/m ³ | USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000 |

Respiratory Protection

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



Hand Protection

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



Eye Protection

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



Skin and Body Protection

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



Hygiene Measures

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

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Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

| | |
|--------------------------------|-------------------|
| Physical State | Liquid |
| Color | No data available |
| Odor | No data available |
| Odor Threshold | No data available |
| pH | No data available |
| Relative evaporation rate | No data available |
| Melting Point | No data available |
| Freezing Point | No data available |
| Boiling Point | No data available |
| Flash Point | No data available |
| Auto-ignition temperature | No data available |
| Decomposition Temperature | No data available |
| Flammability (Solid, Gas) | No data available |
| Vapor Pressure | No data available |
| Relative vapor density at 20°C | No data available |
| Relative Density | No data available |
| Density | No data available |
| Solubility | No data available |
| Log Pow | No data available |
| Log Kow | No data available |
| Viscosity, kinematic | No data available |
| Viscosity, dynamic | No data available |
| Explosive properties | No data available |
| Other Information | |

Section 10: Stability and reactivity

Reactivity

Chemical Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions: n/a

Conditions to Avoid: n/a

Incompatible Materials: n/a

Hazardous Decomposition Products: n/a

Section 11: Toxicological Information

Information on Toxicological Effects

Acute Toxicity:

| | |
|-------------------------------------|-------------------|
| Oral LD50 | No data available |
| Inhalation LC50 | No data available |
| Dermal LD50 | No data available |
| Other Information on Acute Toxicity | No data available |

RNase A

Safety Data Sheet

According to Federal Register/ Vol. 77, No. 58/ Monday, March 26, 2012/ Rules and Regulations

Skin Corrosion/Irritation: No data available

Serious Eye Damage/Irritation: No data available

Respiratory or Skin Sensation: No data available

Germ Cell Mutagenicity: No data available

Carcinogenicity:

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

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

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

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

Reproductive Toxicity: No data available

Specific Target Organ Toxicity (Single Exposure) No data available

Specific Target Organ Toxicity (Repeated Exposure) No data available

Aspiration hazard: No data available

Potential Health Effects:

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion: May be harmful if swallowed

Skin: May be harmful if absorbed through skin.

Eyes: Causes eye irritation.

Signs/Symptoms of Exposure: Prolonged or repeated exposure may cause; headache, nausea, vomiting.

Section 12: Ecological Information

Toxicity: no data available

Persistence and Degradability: no data available

Bio accumulative Potential: no data available

Mobility in Soil: 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.

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 (US): Not considered dangerous goods

IMDG: Not considered dangerous goods

IATA: Not considered dangerous goods

Section 15: Regulatory Information

OSHA Hazards: Target organ effect

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

SARA 313 Components: This product does not contain any chemicals with known CAS numbers that exceed the threshold (De

RNase A

Safety Data Sheet

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Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Components: Chronic Health Hazard

| Right to Know Components | Components | CAS-No. |
|--------------------------|------------|---------|
| Massachusetts | Glycerol | 56-81-5 |
| Pennsylvania | Glycerol | 56-81-5 |
| New Jersey | Glycerol | 56-81-5 |

California Prop. 65 Components: This product does not contain any chemicals listed by the State of California's Proposition 65.

Section 16: Other Information

GHS Full Text Phrases

n/a

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