

Product Information	Revision Date: 06-18-2021	Version: 1.0
----------------------------	----------------------------------	---------------------

Product Name: Auto-Mag® Viral/Pathogen DNA/RNA Isolation Kit

Intended Use for the Product:

Use of the substance/mixture: Research Use Only

Name, Address, and Telephone of the Responsible Party

AMD Biotech Inc.
1860 Montreal Rd.
Tucker, GA 30084
USA.
Telephone 404-290-5063
Email Support@amdbiotech.com

Emergency telephone number

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

List of Components

- Auto-Mag® C-5 Particle
- VDR Buffer
- DRW1 Buffer
- DRW2 Buffer
- RNA Elution Buffer
- Proteinase K
- LEM 1

SECTION 1. IDENTIFICATION OF SUBSTANCE MIXTURE, COMPANY, AND UNDERTAKING**Identification of the substance or mixture**

Product Name: Auto-Mag® C-5 Particles
 Product Family: DNA/RNA purification
 Recommended Use: For laboratory research purposes only

Manufacturer/Supplier

AMD Biotech Inc.
 1860 Montreal Rd.
 Tucker, GA 30084
 USA.
 Telephone 404-290-5063
 Email Support@amdbiotech.com

Emergency Telephone

If Medical Emergency, Call 911
 Contact your local Poison Control Center.

SECTION 2. HAZAEDS IDENTIFICATION

GHS Classification	Not a dangerous substance according to GHS
GHS Symbol Elements	n/a
Signal word	n/a
Hazard statement(s)	No data available
Precautionary statement(s)	No data available
Other hazards	No data available
HMIS Classification (0-4)	
Health hazard:	0
Flammability:	0
Physical hazards:	0
NFPA Rating (0-4)	
Health hazard:	0
Fire:	0
Reactivity Hazard:	0
Potential Health Effects	No data available

SECTION 3. COMPOSITION/IFORMATION ON INGREDIENTS

Mixture of the substances listed below with nonhazardous additions.

Chemical Name	CAS No.	Concentration	Other Identifiers
n/a	n/a	n/a	n/a

Full text of H-phrases: see section 16

SECTION 4. FIRST-AID MEASURES**General Advice**

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

If Inhalation

Move to fresh air. If not breathing, give artificial respiration. Consult a physician

In Case of Skin Contact

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

In Case of Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open.

If swallowed

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

SECTION 5. FIRE-FIGHTING MEASURES

Conditions of flammability Not flammable or combustible

Suitable Extinguishing Media

Dry powder, CO2, water spray, or regular foam.

Special Protective Equipment and Precautions for Fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products No data available

SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

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

Methods and materials for containment and cleaning up

Soak up inert absorbent material and dispose of it as hazardous waste. Keep in suitable, closed containers for disposal.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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

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

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control Parameters**

Contains no substances with occupational exposure limit values.

Individual Protection**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/Face Protection:

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

Skin Protection:

Wear appropriate laboratory attire when handling this product such as gloves, long pants, closed-toe shoes, and 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 your hands thoroughly after using this product.

SECTION 9. PHYSICAL AND CHEMICAL PROTECTION

Basic Physical and Chemical Properties

Appearance	liquid.
Odor	Odorless
Color	Clear, with brown precipitate
PH	6-8
Melting Point/Freezing Point	No data available
Initial Boiling Point/Range	No data available
Evaporation Rate	No data available
Flash Point	No data available
Flammability (solid, gas)	No data available
Upper/Lower Explosive Limit	No data available
Vapor Pressure	No data available
Vapor Density (air = 1)	No data available
Relative Density (water = 1)	No data available
Solubility	No data available
Partition Coefficient,	No data available
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity No data available (kinematic)	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity Not reactive under normal conditions of use

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions No data available

Conditions to Avoid No data available

Incompatible Materials No data available

Hazardous Decomposition Products No data available

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Skin contact; eye contact; ingestion; inhalation.

Acute Toxicity

LC50: No information was located.

LD50 (oral): No information was located.

LD50 (dermal): No information was located.

Skin Corrosion/Irritation No information was located.

Serious Eye Damage/Eye Irritation Eyes No information was located.

Respiratory or Skin Sensitization

Components of the product may be absorbed into the body through the skin. Irritating to skin and mucous membranes.

Germ Cell Mutagenicity No information was located.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation: No information was located.

Skin Absorption: No information was located.
 Ingestion: No information was located.
Aspiration Hazard No information was located.

Carcinogenicity

IARC: No component 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 component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity No information was located.

Sexual Function and Fertility. No information was located.

Interactive Effects No information was located.

Synergistic Effects No information was located.

Potential Health Effects

Inhalation: Toxic if inhaled. May cause respiratory irritation.

Ingestion; Harmful if swallowed.

Skin: Harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Additional Information No information was located.

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

Harmful to aquatic life.

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**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 Hazards

Acute Health Hazard

Right to Know Components	Components	CAS No.
Massachusetts	Water	7732-18-5
Pennsylvania	Water	7732-18-5
New Jersey	Water	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

n/a

AMD Biotech 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 AMD Biotech 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 SUBSTANCE MIXTURE, COMPANY, AND UNDERTAKING**Identification of the substance or mixture**

Product Name: VDR Buffer
Product Family: DNA/RNA purification
Recommended Use: For laboratory research purposes only

Manufacturer/Supplier

AMD Biotech Inc.
1860 Montreal Rd.
Tucker, GA 30084
USA.
Telephone 404-290-5063
Email Support@amdbiotech.com

Emergency Telephone

If Medical Emergency, Call 911
Contact your local Poison Control Center.

SECTION 2. HAZAEDS IDENTIFICATION**GHS Classification**

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

GHS Symbol Elements**Signal word**

Danger

Hazard statement(s)

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

Precautionary statement(s)

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

HMIS Classification (0-4)

Health hazard: 2
Flammability: 0
Physical hazards: 0

NFPA Rating (0-4)

Health hazard: 2
Fire: 0
Reactivity Hazard: 0

Other hazards

No data available

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture of the substances listed below with nonhazardous additions.

Chemical Name	CAS No.	Concentration	Other Identifiers
Guanidine Thiocyanate	593-84-0	50-80%	n/a

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

SECTION 4. FIRST-AID MEASURES**General Advice**

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

If Inhalation

Move to fresh air. If not breathing, give artificial respiration. Consult a physician

In Case of Skin Contact

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

In Case of Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open.

If swallowed

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

SECTION 5. FIRE-FIGHTING MEASURES**Conditions of flammability**

Not flammable or combustible

Suitable Extinguishing Media

Dry powder, CO₂, water spray, or regular foam.

Special Protective Equipment and Precautions for Fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products

Carbon oxides (CO, CO₂), Sulfur Oxides (SOX), Nitrogen oxides (NO_x).

SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

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

Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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

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

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Contains no substances with occupational exposure limit values.

Individual Protection**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/Face Protection:

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

Skin Protection:

Wear appropriate laboratory attire when handling this product such as gloves, long pants, closed-toe shoes, and 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 your hands thoroughly after using this product.

SECTION 9. PHYSICAL AND CHEMICAL PROTECTION**Basic Physical and Chemical Properties**

Appearance	liquid.
Odor	Odorless
Color	Colorless
PH	<5
Melting Point/Freezing Point	No data available
Initial Boiling Point/Range	No data available
Evaporation Rate	No data available
Flash Point	No data available
Flammability (solid, gas)	No data available
Upper/Lower Explosive Limit	No data available
Vapor Pressure	No data available
Vapor Density (air = 1)	No data available
Relative Density (water = 1)	No data available
Solubility	No data available
Partition Coefficient,	No data available
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity No data available (kinematic)	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity Not reactive under normal conditions of use

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, cyanides

Hazardous Decomposition Products

Carbon oxides, Nitrogen oxides (NOx), hydrogen chloride gas.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Skin contact; eye contact; ingestion; inhalation.

Acute Toxicity

LC50: No information was located.

LD50 (oral): No information was located.

LD50 (dermal): No information was located.

Skin Corrosion/Irritation No information was located.

Serious Eye Damage/Eye Irritation Eyes No information was located.

Respiratory or Skin Sensitization

Components of the product may be absorbed into the body through the skin. Irritating to skin and mucous membranes.

Germ Cell Mutagenicity No information was located.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation: No information was located.

Skin Absorption: No information was located.

Ingestion: No information was located.

Aspiration Hazard No information was located.

Carcinogenicity

IARC: No component 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 component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity No information was located.

Sexual Function and Fertility. No information was located.

Interactive Effects No information was located.

Synergistic Effects No information was located.

Potential Health Effects

Inhalation: Toxic if inhaled. May cause respiratory irritation.

Ingestion; Harmful if swallowed.

Skin: Harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Additional Information No information was located.

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

Harmful to aquatic life.

SECTION 13. DISPOSAL CONSIDERATIONS

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

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**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 Hazards

Acute Health Hazard

Right to Know Components	Components	CAS No.
Massachusetts	Water	7732-18-5
Pennsylvania	Water Guanidine thiocyanate	7732-18-5 593-84-0
New Jersey	Water Guanidine thiocyanate	7732-18-5 593-84-0
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 Irri	Eye Irritation
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
Skin Irri	Skin Irritation

AMD Biotech 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 AMD Biotech 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 SUBSTANCE MIXTURE, COMPANY, AND UNDERTAKING**Identification of the substance or mixture**

Product Name: DRW1 Buffer
Product Family: DNA/RNA purification
Recommended Use: For laboratory research purposes only

Manufacturer/Supplier

AMD Biotech Inc.
1860 Montreal Rd.
Tucker, GA 30084
USA.
Telephone 404-290-5063
Email Support@amdbiotech.com

Emergency Telephone

If Medical Emergency, Call 911
Contact your local Poison Control Center.

SECTION 2. HAZAEDS IDENTIFICATION**GHS Classification**

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

GHS Symbol Elements**Signal word**

Danger

Hazard statement(s)

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

Precautionary statement(s)

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

HMIS Classification (0-4)

Health hazard: 2
Flammability: 0
Physical hazards: 0

NFPA Rating (0-4)

Health hazard: 2
Fire: 0
Reactivity Hazard: 0

Other hazards

No data available

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture of the substances listed below with nonhazardous additions.

Chemical Name	CAS No.	Concentration	Other Identifiers
Guanidine Thiocyanate	593-84-0	10-25%	n/a

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

SECTION 4. FIRST-AID MEASURES**General Advice**

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

If Inhalation

Move to fresh air. If not breathing, give artificial respiration. Consult a physician

In Case of Skin Contact

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

In Case of Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open.

If swallowed

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

SECTION 5. FIRE-FIGHTING MEASURES**Conditions of flammability**

Not flammable or combustible

Suitable Extinguishing Media

Dry powder, CO₂, water spray, or regular foam.

Special Protective Equipment and Precautions for Fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products

Carbon oxides (CO, CO₂), Sulfur Oxides (SOX), Nitrogen oxides (NO_x).

SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

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

Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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

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

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Contains no substances with occupational exposure limit values.

Individual Protection**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/Face Protection:

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

Skin Protection:

Wear appropriate laboratory attire when handling this product such as gloves, long pants, closed-toe shoes, and 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 your hands thoroughly after using this product.

SECTION 9. PHYSICAL AND CHEMICAL PROTECTION**Basic Physical and Chemical Properties**

Appearance	liquid.
Odor	Odorless
Color	Colorless
PH	<5
Melting Point/Freezing Point	No data available
Initial Boiling Point/Range	No data available
Evaporation Rate	No data available
Flash Point	No data available
Flammability (solid, gas)	No data available
Upper/Lower Explosive Limit	No data available
Vapor Pressure	No data available
Vapor Density (air = 1)	No data available
Relative Density (water = 1)	No data available
Solubility	No data available
Partition Coefficient,	No data available
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity No data available (kinematic)	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity Not reactive under normal conditions of use

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, cyanides

Hazardous Decomposition Products

Carbon oxides, Nitrogen oxides (NOx), hydrogen chloride gas.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Skin contact; eye contact; ingestion; inhalation.

Acute Toxicity

LC50: No information was located.

LD50 (oral): No information was located.

LD50 (dermal): No information was located.

Skin Corrosion/Irritation No information was located.

Serious Eye Damage/Eye Irritation Eyes No information was located.

Respiratory or Skin Sensitization

Components of the product may be absorbed into the body through the skin. Irritating to skin and mucous membranes.

Germ Cell Mutagenicity No information was located.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation: No information was located.

Skin Absorption: No information was located.

Ingestion: No information was located.

Aspiration Hazard No information was located.

Carcinogenicity

IARC: No component 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 component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity No information was located.

Sexual Function and Fertility. No information was located.

Interactive Effects No information was located.

Synergistic Effects No information was located.

Potential Health Effects

Inhalation: Toxic if inhaled. May cause respiratory irritation.

Ingestion; Harmful if swallowed.

Skin: Harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Additional Information No information was located.

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

Harmful to aquatic life.

SECTION 13. DISPOSAL CONSIDERATIONS

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

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

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 Hazards

Acute Health Hazard

Right to Know Components	Components	CAS No.
Massachusetts	Water	7732-18-5
Pennsylvania	Water	7732-18-5
	Guanidine thiocyanate	593-84-0
New Jersey	Water	7732-18-5
	Guanidine thiocyanate	593-84-0
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 Irri	Eye Irritation
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
Skin Irri	Skin Irritation

AMD Biotech 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 AMD Biotech 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 SUBSTANCE MIXTURE, COMPANY, AND UNDERTAKING**Identification of the substance or mixture**

Product Name: DRW2 Buffer
 Product Family: DNA/RNA purification
 Recommended Use: For laboratory research purposes only

Manufacturer/Supplier

AMD Biotech Inc.
 1860 Montreal Rd.
 Tucker, GA 30084
 USA.
 Telephone 404-290-5063
 Email Support@amdbiotech.com

Emergency Telephone

If Medical Emergency, Call 911
 Contact your local Poison Control Center.

SECTION 2. HAZAEDS IDENTIFICATION

GHS Classification Not a dangerous substance according to GHS
GHS Symbol Elements n/a
Signal word n/a
Hazard statement(s) No data available
Precautionary statement(s) No data available
Other hazards No data available
HMIS Classification (0-4)
Health hazard: 0
Flammability: 0
Physical hazards: 0
NFPA Rating (0-4)
Health hazard: 0
Fire: 0
Reactivity Hazard: 0
Potential Health Effects No data available

SECTION 3. COMPOSITION/IFORMATION ON INGREDIENTS

Mixture of the substances listed below with nonhazardous additions.

Chemical Name	CAS No.	Concentration	Other Identifiers
n/a	n/a	n/a	n/a

Full text of H-phrases: see section 16

SECTION 4. FIRST-AID MEASURES**General Advice**

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

If Inhalation

Move to fresh air. If not breathing, give artificial respiration. Consult a physician

In Case of Skin Contact

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

In Case of Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open.

If swallowed

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

SECTION 5. FIRE-FIGHTING MEASURES

Conditions of flammability Not flammable or combustible

Suitable Extinguishing Media

Dry powder, CO2, water spray, or regular foam.

Special Protective Equipment and Precautions for Fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products No data available

SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

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

Methods and materials for containment and cleaning up

Soak up inert absorbent material and dispose of it as hazardous waste. Keep in suitable, closed containers for disposal.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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

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

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control Parameters**

Contains no substances with occupational exposure limit values.

Individual Protection**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/Face Protection:

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

Skin Protection:

Wear appropriate laboratory attire when handling this product such as gloves, long pants, closed-toe shoes, and 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 your hands thoroughly after using this product.

SECTION 9. PHYSICAL AND CHEMICAL PROTECTION**Basic Physical and Chemical Properties**

Appearance	liquid.
Odor	Odorless
Color	Colorless
PH	6-8
Melting Point/Freezing Point	No data available
Initial Boiling Point/Range	No data available
Evaporation Rate	No data available
Flash Point	No data available
Flammability (solid, gas)	No data available
Upper/Lower Explosive Limit	No data available
Vapor Pressure	No data available
Vapor Density (air = 1)	No data available
Relative Density (water = 1)	No data available
Solubility	No data available
Partition Coefficient,	No data available
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity No data available (kinematic)	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity Not reactive under normal conditions of use

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions	No data available
Conditions to Avoid	No data available
Incompatible Materials	No data available
Hazardous Decomposition Products	No data available

SECTION 11. TOXICOLOGICAL INFORMATION**Likely Routes of Exposure**

Skin contact; eye contact; ingestion; inhalation.

Acute Toxicity

LC50:	No information was located.
LD50 (oral):	No information was located.
LD50 (dermal):	No information was located.
Skin Corrosion/Irritation	No information was located.
Serious Eye Damage/Eye Irritation Eyes	No information was located.

Respiratory or Skin Sensitization

Components of the product may be absorbed into the body through the skin. Irritating to skin and mucous membranes.

Germ Cell Mutagenicity No information was located.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation:	No information was located.
Skin Absorption:	No information was located.
Ingestion:	No information was located.

Aspiration Hazard

No information was located.

Carcinogenicity

IARC: No component 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 component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity

No information was located.

Sexual Function and Fertility.

No information was located.

Interactive Effects

No information was located.

Synergistic Effects

No information was located.

Potential Health Effects

Inhalation: Toxic if inhaled. May cause respiratory irritation.

Ingestion; Harmful if swallowed.

Skin: Harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Additional Information

No information was located.

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

Harmful to aquatic life.

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**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 Hazards

Acute Health Hazard

Right to Know Components	Components	CAS No.
Massachusetts	Water	7732-18-5
Pennsylvania	Water	7732-18-5
New Jersey	Water	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**

n/a

AMD Biotech 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 AMD Biotech 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 SUBSTANCE MIXTURE, COMPANY, AND UNDERTAKING

Identification of the substance or mixture

Product Name: RNA Elution Buffer
 Product Family: DNA/RNA purification
 Recommended Use: For laboratory research purposes only

Manufacturer/Supplier

AMD Biotech Inc.
 1860 Montreal Rd.
 Tucker, GA 30084
 USA.
 Telephone 404-290-5063
 Email Support@amdbiotech.com

Emergency Telephone

If Medical Emergency, Call 911
 Contact your local Poison Control Center.

SECTION 2. HAZAEDS IDENTIFICATION

GHS Classification Not a dangerous substance according to GHS
GHS Symbol Elements n/a
Signal word n/a
Hazard statement(s) No data available
Precautionary statement(s) No data available
Other hazards No data available
HMIS Classification (0-4)
Health hazard: 0
Flammability: 0
Physical hazards: 0
NFPA Rating (0-4)
Health hazard: 0
Fire: 0
Reactivity Hazard: 0
Potential Health Effects No data available

SECTION 3. COMPOSITION/IFORMATION ON INGREDIENTS

Mixture of the substances listed below with nonhazardous additions.

Chemical Name	CAS No.	Concentration	Other Identifiers
n/a	n/a	n/a	n/a

Full text of H-phrases: see section 16

SECTION 4. FIRST-AID MEASURES

General Advice

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

If Inhalation

Move to fresh air. If not breathing, give artificial respiration. Consult a physician

In Case of Skin Contact

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

In Case of Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open.

If swallowed

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

SECTION 5. FIRE-FIGHTING MEASURES

Conditions of flammability Not flammable or combustible

Suitable Extinguishing Media

Dry powder, CO2, water spray, or regular foam.

Special Protective Equipment and Precautions for Fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products No data available

SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

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

Methods and materials for containment and cleaning up

Soak up inert absorbent material and dispose of it as hazardous waste. Keep in suitable, closed containers for disposal.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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

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

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control Parameters**

Contains no substances with occupational exposure limit values.

Individual Protection**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/Face Protection:

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

Skin Protection:

Wear appropriate laboratory attire when handling this product such as gloves, long pants, closed-toe shoes, and 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 your hands thoroughly after using this product.

SECTION 9. PHYSICAL AND CHEMICAL PROTECTION**Basic Physical and Chemical Properties**

Appearance	liquid.
Odor	Odorless
Color	Colorless
PH	6-8
Melting Point/Freezing Point	No data available
Initial Boiling Point/Range	No data available
Evaporation Rate	No data available
Flash Point	No data available
Flammability (solid, gas)	No data available
Upper/Lower Explosive Limit	No data available
Vapor Pressure	No data available
Vapor Density (air = 1)	No data available
Relative Density (water = 1)	No data available
Solubility	No data available
Partition Coefficient,	No data available
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity No data available (kinematic)	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity Not reactive under normal conditions of use

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions No data available

Conditions to Avoid No data available

Incompatible Materials No data available

Hazardous Decomposition Products No data available

SECTION 11. TOXICOLOGICAL INFORMATION**Likely Routes of Exposure**

Skin contact; eye contact; ingestion; inhalation.

Acute Toxicity

LC50: No information was located.

LD50 (oral): No information was located.

LD50 (dermal): No information was located.

Skin Corrosion/Irritation No information was located.

Serious Eye Damage/Eye Irritation Eyes No information was located.

Respiratory or Skin Sensitization

Components of the product may be absorbed into the body through the skin. Irritating to skin and mucous membranes.

Germ Cell Mutagenicity No information was located.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation: No information was located.

Skin Absorption: No information was located.

Ingestion: No information was located.

Aspiration Hazard

No information was located.

Carcinogenicity

IARC: No component 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 component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity

No information was located.

Sexual Function and Fertility.

No information was located.

Interactive Effects

No information was located.

Synergistic Effects

No information was located.

Potential Health Effects

Inhalation: Toxic if inhaled. May cause respiratory irritation.

Ingestion; Harmful if swallowed.

Skin: Harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Additional Information

No information was located.

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

Harmful to aquatic life.

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**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 Hazards

Acute Health Hazard

Right to Know Components	Components	CAS No.
Massachusetts	Water	7732-18-5
Pennsylvania	Water	7732-18-5
New Jersey	Water	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 n/a

AMD Biotech 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 AMD Biotech 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 SUBSTANCE MIXTURE, COMPANY, AND UNDERTAKING

Identification of the substance or mixture

Product Name: Proteinase K solution
 Product Family: DNA/RNA purification
 Recommended Use: For laboratory research purposes only

Manufacturer/Supplier

AMD Biotech Inc.
 1860 Montreal Rd.
 Tucker, GA 30084
 USA.
 Telephone 404-290-5063
 Email Support@amdbiotech.com

Emergency Telephone

If Medical Emergency, Call 911
 Contact your local Poison Control Center.

SECTION 2. HAZAEDS IDENTIFICATION

GHS Classification

Skin Irritation 2
 Skin Sensitizer 1
 Eye Irritation 2
 Respiratory Sensitization 1

GHS Symbol Elements



Signal word

Danger

Hazard statement(s)

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

Precautionary statement(s)

P280 Wear protective gloves/protective clothing/eye protection/face protection
 P261 Avoid breathing dust/ fume/ gas/ mist/ 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.

Other hazards

No data available

HMIS Classification (0-4)

Health hazard: 2
 Flammability: 0
 Physical hazards: 0

NFPA Rating (0-4)

Health hazard: 2

Fire: 0
 Reactivity Hazard: 0

Potential Health Effects

Inhalation: May cause respiratory tract irritation

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

Eyes: Causes eye irritation.

Ingestion: May be harmful if swallowed.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture of the substances listed below with nonhazardous additions.

Chemical Name	CAS No.	Concentration	Other Identifiers
Proteinase K	39450-01-6	10-40mg/ml	n/a
Glycerol	56-81-5	30-50 %	n/a

Full text of H-phrases: see section 16

SECTION 4. FIRST-AID MEASURES**General Advice**

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

If Inhalation

Move to fresh air. If not breathing, give artificial respiration. Consult a physician

In Case of Skin Contact

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

In Case of Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open.

If swallowed

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

SECTION 5. FIRE-FIGHTING MEASURES

Conditions of flammability Not flammable or combustible

Suitable Extinguishing Media

Dry powder, CO₂, water spray, or regular foam.

Special Protective Equipment and Precautions for Fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products No data available

SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

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

Methods and materials for containment and cleaning up

Soak up inert absorbent material and dispose of it as hazardous waste. Keep in suitable, closed containers for disposal.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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

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

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Individual Protection

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/Face Protection:

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

Skin Protection:

Wear appropriate laboratory attire when handling this product such as gloves, long pants, closed-toe shoes, and 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 your hands thoroughly after using this product.

SECTION 9. PHYSICAL AND CHEMICAL PROTECTION

Basic Physical and Chemical Properties

Appearance	liquid.
Odor	Odorless
Color	Clear/slight yellow
PH	No data available
Melting Point/Freezing Point	No data available
Initial Boiling Point/Range	No data available
Evaporation Rate	No data available
Flash Point	No data available
Flammability (solid, gas)	No data available
Upper/Lower Explosive Limit	No data available
Vapor Pressure	No data available
Vapor Density (air = 1)	No data available
Relative Density (water = 1)	No data available
Solubility	No data available
Partition Coefficient,	No data available
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available (kinematic)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	Not reactive under normal conditions of use
Chemical Stability	
Stable under recommended storage conditions.	
Possibility of Hazardous Reactions	No data available
Conditions to Avoid	No data available
Incompatible Materials	No data available
Hazardous Decomposition Products	No data available

SECTION 11. TOXICOLOGICAL INFORMATION**Likely Routes of Exposure**

Skin contact; eye contact; ingestion; inhalation.

Acute Toxicity

LC50: No information was located.

LD50 (oral): No information was located.

LD50 (dermal): No information was located.

Skin Corrosion/Irritation No information was located.

Serious Eye Damage/Eye Irritation Eyes No information was located.

Respiratory or Skin Sensitization

Components of the product may be absorbed into the body through the skin. Irritating to skin and mucous membranes.

Germ Cell Mutagenicity No information was located.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation: No information was located.

Skin Absorption: No information was located.

Ingestion: No information was located.

Aspiration Hazard No information was located.

Carcinogenicity

IARC: No component 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 component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity No information was located.

Sexual Function and Fertility. No information was located.

Interactive Effects No information was located.

Synergistic Effects No information was located.

Potential Health Effects

Inhalation: Toxic if inhaled. May cause respiratory irritation.

Ingestion; Harmful if swallowed.

Skin: Harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Additional Information No information was located.

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
Bio-accumulative Potential No data available
Mobility in Soil No data available
Other Adverse Effects No data available
 Harmful to aquatic life.

SETION 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.

SETION 14. TRANSPORT INFORMATION

DOT (US) Not considered dangerous goods.
IMDG Not considered dangerous goods.
IATA Not considered dangerous goods.

SETION 15. REGULATORY INFORMATION

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 Hazards

Acute Health Hazard

Right to Know Components	Components	CAS No.
Massachusetts	Glycerol	56-81-5
	Proteinase K	39450-01-6
Pennsylvania	Water	7732-18-5
	Glycerol	56-81-5
	Proteinase K	39450-01-6
New Jersey	Water	7732-18-5
	Glycerol	56-81-5
	Proteinase K	39450-01-6-5
California Prop. 65 Components		
This product does not contain any chemicals listed by the State of California’s Proposition 65.		

SETION 16. OTHER INFORMATION

GHS Full Text Phrases n/a

AMD Biotech 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 AMD Biotech 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 SUBSTANCE MIXTURE, COMPANY, AND UNDERTAKING**Identification of the substance or mixture**

Product Name: LEM 1
 Product Family: DNA/RNA purification
 Recommended Use: For laboratory research purposes only

Manufacturer/Supplier

AMD Biotech Inc.
 1860 Montreal Rd.
 Tucker, GA 30084
 USA.
 Telephone 404-290-5063
 Email Support@amdbiotech.com

Emergency Telephone

If Medical Emergency, Call 911
 Contact your local Poison Control Center.

SECTION 2. HAZAEDS IDENTIFICATION**GHS Classification**

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
 Respiratory sensitization (Category 1), H334
 For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS Symbol Elements**Signal word**

Danger

Hazard statement(s)

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

Precautionary statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
 P285 In case of inadequate ventilation wear respiratory protection.
 P342 + P341 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
 P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

No data available

HMIS Classification (0-4)

Health hazard: 0

Flammability: 0

Physical hazards: 0

NFPA Rating (0-4)

Health hazard: 0

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

Inhalation: May be harmful if inhaled

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

Eyes: Causes eye irritation.

Ingestion: May be harmful if swallowed.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture of the substances listed below with nonhazardous additions.

Chemical Name	CAS No.	Concentration	Other Identifiers
Lysozyme, from chicken egg white	12650-88-3	1-20mg/ml	n/a
Glycerol	56-81-5	30-50 %	n/a
Stabilizer	CBI*	0.001-0.1 %	n/a

Full text of H-phrases: see section 16

*CBI = Confidential Business Information. The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

General Advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If Inhalation

Move to fresh air. If not breathing, give artificial respiration. Consult a physician

In Case of Skin Contact

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

In Case of Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open.

If swallowed

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

SECTION 5. FIRE-FIGHTING MEASURES

Conditions of flammability Not flammable or combustible

Suitable Extinguishing Media

Dry powder, CO₂, water spray, or regular foam.

Special Protective Equipment and Precautions for Fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products No data available

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions

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

Methods and materials for containment and cleaning up

Soak up inert absorbent material and dispose of it as hazardous waste. Keep in suitable, closed containers for disposal.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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

Keep containers tightly closed, Recommended storage temperature-20 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Individual Protection

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/Face Protection:

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

Skin Protection:

Wear appropriate laboratory attire when handling this product such as gloves, long pants, closed-toe shoes, and 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 your hands thoroughly after using this product.

Control of environmental exposure

Do not let product enter drains.

SECTION 9. PHYSICAL AND CHEMICAL PROTECTION

Basic Physical and Chemical Properties

Appearance	liquid.
Odor	Odorless
Color	Clear
PH	No data available
Melting Point/Freezing Point	No data available
Initial Boiling Point/Range	No data available
Evaporation Rate	No data available
Flash Point	No data available
Flammability (solid, gas)	No data available
Upper/Lower Explosive Limit	No data available
Vapor Pressure	No data available
Vapor Density (air = 1)	No data available
Relative Density (water = 1)	No data available
Solubility	No data available
Partition Coefficient,	No data available
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available (kinematic)

Other safety information

No data available

SECTION 10. STABILITY AND REACTIVITY**Reactivity**

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

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

In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION**Likely Routes of Exposure**

Skin contact; eye contact; ingestion; inhalation.

Acute Toxicity

LD50 Oral - Rat - male and female - > 5,050 mg/kg

(US-EPA)

LC50 Inhalation - Rat - male and female - 4 h - > 2.51 mg/l

(US-EPA)

LD50 Dermal - Rabbit - male and female - > 5,050 mg/kg

(US-EPA)

No data available.

Skin Corrosion/Irritation No information was located.**Serious Eye Damage/Eye Irritation Eyes** No information was located.**Respiratory or Skin Sensitization**

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

Germ Cell Mutagenicity No information was located.**STOT (Specific Target Organ Toxicity) - Single Exposure**

Inhalation: No information was located.

Skin Absorption: No information was located.

Ingestion: No information was located.

Aspiration Hazard No information was located.**Carcinogenicity**

IARC: No component 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 component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity No information was located.**Sexual Function and Fertility.** No information was located.**Interactive Effects** No information was located.

Synergistic Effects No information was located.

Potential Health Effects

Inhalation: Toxic if inhaled. May cause respiratory irritation.

Ingestion; Harmful if swallowed.

Skin: Harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Additional Information

RTECS: OL5989000

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 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

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 Hazards

Acute Health Hazard

Right to Know Components	Components	CAS No.
Massachusetts	Glycerol	56-81-5
Pennsylvania	Water	7732-18-5
	Glycerol	56-81-5
New Jersey	Water	7732-18-5
	Glycerol	56-81-5

SECTION 16. OTHER INFORMATION**GHS Full Text Phrases**

n/a

AMD Biotech 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 AMD Biotech 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.

LEM 1

Auto-Mag® Viral/Pathogen DNA/RNA Isolation Kit

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

Material Safety Data Sheet
