

1. Product and Company Identification

Material name BioMaxi RNA Purification Kit - RP (Precipitation Buffer)
Version # 01
Issue date 11-09-2012
Revision date -
Supersedes date -
CAS # Mixture
Product use Purification of RNA from Stabilized Blood.
Manufacturer/Supplier Biomātrica, Inc.
 5627 Oberlin Dr Suite 120 San Diego,
 CA 92121
 info@biomatrica.com
 Contact Person: Scott Whitney
 (858) 550-0308
Emergency 1-866-379-6879 (NORTH AMERICA)

2. Hazards Identification

Physical state Liquid.
Appearance Clear, colorless liquid.
Emergency overview DANGER
 May be fatal if inhaled. Causes skin, eye and respiratory tract irritation.
OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects
Routes of exposure Ingestion. Skin contact. Eye contact. Inhalation.
Eyes Causes eye irritation.
Skin Causes skin irritation.
Inhalation May be fatal if inhaled. Causes respiratory tract irritation.
Ingestion May cause discomfort if swallowed.
Signs and symptoms Exposed individuals may experience eye tearing, redness, and discomfort. In high concentrations, mists/vapors may irritate throat and respiratory system and cause coughing.
Potential environmental effects Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Amino alcohol	Proprietary	1-10
Anionic surfactant	Proprietary	1-<5

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures
Eye contact Rinse the eye with water immediately. Get medical attention if irritation develops and persists.
Skin contact Remove contaminated clothing immediately and wash skin with water. Get medical attention immediately.
Inhalation Move injured person into fresh air and keep person calm under observation. Get medical attention immediately.

Ingestion	Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Only induce vomiting at the instruction of medical personnel. Get medical attention immediately.
Notes to physician	Provide general supportive measures and treat symptomatically.
General advice	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties	The product is not flammable.
Extinguishing media	
Suitable extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	No restrictions known.
Protection of firefighters	
Specific hazards arising from the chemical	No unusual fire or explosion hazards noted.
Protective equipment and precautions for firefighters	Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Use standard firefighting procedures and consider the hazards of other involved materials.
Hazardous combustion products	Carbon oxides. Nitrogen oxides.

6. Accidental Release Measures

Personal precautions	Avoid inhalation of vapors/spray and contact with skin and eyes. See Section 8 of the MSDS for Personal Protective Equipment.
Environmental precautions	Environmental manager must be informed of all major releases.
Methods for cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Clean surface thoroughly to remove residual contamination. Absorb spillage with suitable absorbent material. For waste disposal, see Section 13 of the MSDS. Never return spills to original containers for re-use.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling	Avoid inhalation of vapors/spray and contact with skin and eyes. Provide adequate ventilation. Local exhaust is recommended. Wear appropriate personal protective equipment (See Section 8). Observe good laboratory hygiene practices.
Storage	Store in a cool, well-ventilated, dark place. Store away from incompatible materials.

8. Exposure Controls / Personal Protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Exposure guidelines	Follow standard monitoring procedures.
Engineering controls	Ensure adequate ventilation, especially in confined areas. Provide adequate general and local exhaust ventilation.
Personal protective equipment	
Eye / face protection	Wear approved safety goggles.
Skin protection	Wear appropriate chemical resistant gloves. Wear appropriate clothing to prevent repeated or prolonged skin contact.
Respiratory protection	In case of inadequate ventilation use suitable respirator. If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance	Clear, colorless liquid.
Physical state	Liquid.
Form	Liquid.
Color	Colorless, clear.
Odor	Low.
Odor threshold	Not available.
pH	9 - 9.4
Vapor pressure	Not available.
Vapor density	Not available.
Boiling point	Not available.
Melting point/Freezing point	Not available.
Solubility (water)	Completely soluble in water.
Specific gravity	Not available.
Flash point	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
Viscosity	Not available.
Other data	
Flammability (solid, gas)	Not applicable.

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Conditions to avoid	Freezing. Excessive heat. Contact with incompatible materials.
Incompatible materials	Strong acids. Strong bases. Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides. Nitrogen oxides.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
Amino alcohol (CAS Proprietary)		
Acute		
<i>Oral</i>		
LD50	Rat	5900 mg/kg
Anionic surfactant (CAS Proprietary)		
Acute		
<i>Inhalation</i>		
LC50	Rat	0.05 - 0.5 mg/l/4h
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
Sensitization	No data available.	
Acute effects	Harmful if inhaled.	
Local effects	Causes skin, eye and respiratory tract irritation.	
Carcinogenicity	Not classified.	
Mutagenicity	No data available.	

Reproductive effects	No data available.
Teratogenicity	No data available.
Symptoms and target organs	Exposed individuals may experience eye tearing, redness, and discomfort. In high concentrations, mists/vapors may irritate throat and respiratory system and cause coughing.
Further information	No other specific acute or chronic health impact noted.

12. Ecological Information

Ecotoxicity	The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and degradability	No data available.
Bioaccumulation / Accumulation	No data available.
Partition coefficient Amino alcohol	-2.31 (20°C)
Mobility in environmental media	The product is water soluble and may spread in water systems.

13. Disposal Considerations

Disposal instructions	Dispose of in accordance with local regulations.
Waste from residues / unused products	Do not allow this material to drain into sewers/water supplies. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT	Not regulated as a hazardous material by DOT.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
TDG	Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations	This product is hazardous according to OSHA 29 CFR 1910.1200.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated.
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List	Not regulated.
CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)	None
Superfund Amendments and Reauthorization Act of 1986 (SARA)	
Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
Section 302 extremely hazardous substance (40 CFR 355, Appendix A)	No
Section 311/312 (40 CFR 370)	Yes

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)

Not controlled

Canadian regulations

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status

Controlled

WHMIS classification

D1A - Immediate/Serious-VERY TOXIC
D2B - Other Toxic Effects-TOXIC

WHMIS labeling



Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Not regulated.

Mexico regulations

This safety data sheet was prepared in accordance with the Official Mexican Standard (NOM-018-STPS-2000).

16. Other Information

Further information

HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings

Health: 2
Flammability: 0
Physical hazard: 0

NFPA ratings

Health: 3
Flammability: 0
Instability: 0

Disclaimer

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

1. Product and Company Identification

Material name BioMaxi RNA Purification Kit - RS (Resuspension Buffer)
Version # 01
Issue date 11-09-2012
Revision date -
Supersedes date -
CAS # Mixture
Product use Purification of RNA from Stabilized Blood.
Manufacturer/Supplier Biomatrixa, Inc.
 5627 Oberlin Dr Suite 120 San Diego,
 CA 92121
 info@biomatrica.com
 Contact Person: Scott Whitney
 (858) 550-0308
Emergency 1-866-379-6879 (NORTH AMERICA)

2. Hazards Identification

Physical state Liquid.
Appearance Clear, yellow liquid.
Emergency overview WARNING
 Harmful if inhaled, absorbed through skin, or swallowed. May cause eye, skin and respiratory tract irritation.
OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects
Routes of exposure Ingestion. Skin contact. Eye contact. Inhalation.
Eyes May cause eye irritation on direct contact.
Skin Harmful if absorbed through skin. May cause skin irritation.
Inhalation Harmful if inhaled. May cause respiratory tract irritation.
Ingestion Harmful if swallowed.
Signs and symptoms May cause abdominal pain with vomiting, nausea, diarrhea, or dizziness. Contact may cause irritation and redness.
Potential environmental effects Harmful to aquatic life with long lasting effects.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Salt of thiocyanic acid	Proprietary	40 - 60
Polyoxyethylenesorbitan monooleate	Proprietary	10 - 20

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures
Eye contact Rinse the eye with water immediately. Get medical attention if irritation develops and persists.
Skin contact Remove contaminated clothing immediately and wash skin with water. Get medical attention immediately.
Inhalation Move injured person into fresh air and keep person calm under observation. Get medical attention immediately.

Ingestion	Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Only induce vomiting at the instruction of medical personnel. Get medical attention immediately.
Notes to physician	Provide general supportive measures and treat symptomatically.
General advice	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties	The product is not flammable.
Extinguishing media	
Suitable extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	No restrictions known.
Protection of firefighters	
Specific hazards arising from the chemical	No unusual fire or explosion hazards noted.
Protective equipment and precautions for firefighters	Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Use standard firefighting procedures and consider the hazards of other involved materials.
Hazardous combustion products	Carbon oxides. Nitrogen oxides. Sulfur oxides.

6. Accidental Release Measures

Personal precautions	Avoid inhalation of vapors/spray and contact with skin and eyes. See Section 8 of the MSDS for Personal Protective Equipment.
Environmental precautions	Environmental manager must be informed of all major releases.
Methods for cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Clean surface thoroughly to remove residual contamination. Absorb spillage with suitable absorbent material. For waste disposal, see Section 13 of the MSDS. Never return spills to original containers for re-use.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling	Avoid inhalation of vapors/spray and contact with skin and eyes. Provide adequate ventilation. Local exhaust is recommended. Wear appropriate personal protective equipment (See Section 8). Observe good laboratory hygiene practices.
Storage	Store in a cool, well-ventilated, dark place. Do not store together with acids. Protect from light. Store away from incompatible materials.

8. Exposure Controls / Personal Protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Exposure guidelines	Follow standard monitoring procedures.
Engineering controls	Ensure adequate ventilation, especially in confined areas. Provide adequate general and local exhaust ventilation.
Personal protective equipment	
Eye / face protection	Wear approved safety goggles.
Skin protection	Wear appropriate chemical resistant gloves. Wear appropriate clothing to prevent repeated or prolonged skin contact.
Respiratory protection	If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance	Clear, yellow liquid.
Physical state	Liquid.
Form	Liquid.
Color	Clear. Yellow.
Odor	Low.
Odor threshold	Not available.
pH	5.8 - 6.2
Vapor pressure	Not available.
Vapor density	Not available.
Boiling point	Not available.
Melting point/Freezing point	Not available.
Solubility (water)	Completely soluble in water.
Specific gravity	Not available.
Flash point	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
Viscosity	Not available.
Other data	
Flammability (solid, gas)	Not applicable.

10. Chemical Stability & Reactivity Information

Chemical stability	Contact with acids liberates very toxic gas.
Conditions to avoid	Contact with acids. Freezing. Excessive heat. Contact with incompatible materials.
Incompatible materials	Acids. Cyanides. Strong bases. Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides. Nitrogen oxides. Sulfur oxides.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Sensitization	No data available.
Acute effects	Harmful if inhaled, absorbed through skin, or swallowed.
Local effects	May cause eye, skin and respiratory tract irritation.
Carcinogenicity	Not classified.
Mutagenicity	No data available.
Reproductive effects	No data available.
Teratogenicity	No data available.
Symptoms and target organs	May cause abdominal pain with vomiting, nausea, diarrhea, or dizziness. Contact may cause irritation and redness.
Further information	No other specific acute or chronic health impact noted.

12. Ecological Information

Ecotoxicity	Harmful to aquatic life with long lasting effects.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and degradability	No data available.
Bioaccumulation / Accumulation	No data available.

Mobility in environmental media The product is water soluble and may spread in water systems.

13. Disposal Considerations

Disposal instructions Dispose of in accordance with local regulations.
Waste from residues / unused products Do not allow this material to drain into sewers/water supplies. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT

Not regulated as a hazardous material by DOT.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

TDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations This product is hazardous according to OSHA 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance (40 CFR 355, Appendix A) No

Section 311/312 (40 CFR 370) Yes

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15) Not controlled

Canadian regulations This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status Controlled

WHMIS classification D2B - Other Toxic Effects-TOXIC

WHMIS labeling



Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Not regulated.

Mexico regulations This safety data sheet was prepared in accordance with the Official Mexican Standard (NOM-018-STPS-2000).

16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings
Health: 2
Flammability: 0
Physical hazard: 0

NFPA ratings
Health: 2
Flammability: 0
Instability: 0

Disclaimer This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

1. Product and Company Identification

Material name BioMaxi RNA Purification Kit - RW1 (Wash Buffer 1)
Version # 01
Issue date 11-08-2012
Revision date -
Supersedes date -
CAS # Mixture
Product use Purification of RNA from Stabilized Blood.
Manufacturer/Supplier Biomātrica, Inc.
 5627 Oberlin Drive, Suite 120
 CA 92121
 info@biomatrica.com
 Contact Person: Scott Whitney
 (858) 550-0308
Emergency 1-866-379-6879 (NORTH AMERICA)

2. Hazards Identification

Physical state Liquid.
Appearance Clear, colorless liquid.
Emergency overview WARNING
 Harmful if swallowed. Causes skin, eye and respiratory tract irritation.
OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects
Routes of exposure Ingestion. Skin contact. Eye contact. Inhalation.
Eyes Causes eye irritation.
Skin Causes skin irritation.
Inhalation Causes respiratory tract irritation.
Ingestion Harmful if swallowed.
Signs and symptoms Exposed individuals may experience eye tearing, redness, and discomfort. Irritation.
Potential environmental effects The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Lithium chloride	7447-41-8	30 - 60

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures
Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Skin contact Remove contaminated clothes and rinse skin thoroughly with water. Get medical attention if irritation persists after washing.
Inhalation Move injured person into fresh air and keep person calm under observation. Get medical attention if any discomfort continues.
Ingestion Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Get medical attention if any discomfort occurs.

Notes to physician Provide general supportive measures and treat symptomatically.
General advice Get medical attention if any discomfort develops.

5. Fire Fighting Measures

Flammable properties The product is not flammable.

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media No restrictions known.

Protection of firefighters

Specific hazards arising from the chemical No unusual fire or explosion hazards noted.

Protective equipment and precautions for firefighters Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions Use standard firefighting procedures and consider the hazards of other involved materials.

Hazardous combustion products None known.

6. Accidental Release Measures

Personal precautions Avoid inhalation of vapors/spray and contact with skin and eyes. See Section 8 of the MSDS for Personal Protective Equipment.

Environmental precautions Environmental manager must be informed of all major releases.

Methods for cleaning up Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Clean surface thoroughly to remove residual contamination. Absorb spillage with suitable absorbent material. For waste disposal, see Section 13 of the MSDS.

Never return spills to original containers for re-use.

Other information Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling Avoid inhalation of vapors/spray and contact with skin and eyes. Local exhaust is recommended. Wear appropriate personal protective equipment (See Section 8). Observe good laboratory hygiene practices.

Storage Avoid high temperatures. Store away from incompatible materials.

8. Exposure Controls / Personal Protection

Occupational exposure limits No exposure limits noted for ingredient(s).

Exposure guidelines Follow standard monitoring procedures.

Engineering controls Ensure adequate ventilation, especially in confined areas. Provide adequate general and local exhaust ventilation.

Personal protective equipment

Eye / face protection Wear approved safety goggles.

Skin protection Wear appropriate chemical resistant gloves. Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory protection In case of inadequate ventilation use suitable respirator.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance Clear, colorless liquid.

Physical state Liquid.

Form Liquid.

Color	Clear. Colorless.
Odor	Low.
Odor threshold	Not available.
pH	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Boiling point	Not available.
Melting point/Freezing point	Not available.
Solubility (water)	Not available.
Specific gravity	Not available.
Flash point	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
Evaporation rate	Not available.
Viscosity	Not available.
Other data	
Flammability (solid, gas)	Not applicable.

10. Chemical Stability & Reactivity Information

Chemical stability	This product is stable under expected conditions of use.
Conditions to avoid	Freezing. Excessive heat.
Incompatible materials	Strong oxidizing agents. Water reactive materials.
Hazardous decomposition products	None known.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
Lithium chloride (CAS 7447-41-8)		
Acute		
<i>Oral</i>		
LD50	Rat	757 mg/kg
Sensitization	No data available.	
Acute effects	Harmful if swallowed.	
Local effects	Causes skin, eye and respiratory tract irritation.	
Carcinogenicity	Not classified.	
Mutagenicity	No data available.	
Reproductive effects	No data available.	
Symptoms and target organs	Exposed individuals may experience eye tearing, redness, and discomfort. Irritation. Defatting of the skin.	

12. Ecological Information

Ecotoxicity	The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and degradability	No data available.

Bioaccumulation / Accumulation No data available.

Mobility in environmental media The product is water soluble and may spread in water systems.

13. Disposal Considerations

Disposal instructions Dispose of in accordance with local regulations.

Waste from residues / unused products Do not allow this material to drain into sewers/water supplies. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT
Not regulated as a hazardous material by DOT.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

TDG
Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations This product is hazardous according to OSHA 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance (40 CFR 355, Appendix A) No

Section 311/312 (40 CFR 370) Yes

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15) Not controlled

Canadian regulations This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status Controlled

WHMIS classification D2B - Other Toxic Effects-TOXIC

WHMIS labeling



Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Not regulated.

Mexico regulations This safety data sheet was prepared in accordance with the Official Mexican Standard (NOM-018-STPS-2000).

16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings
 Health: 2
 Flammability: 0
 Physical hazard: 0

NFPA ratings
 Health: 2
 Flammability: 0
 Instability: 0

Disclaimer This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

1. Product and Company Identification

Material name BioMaxi RNA Purification Kit - RW2 (Wash Buffer 2)
Version # 01
Issue date 11-08-2012
Revision date -
Supersedes date -
CAS # Mixture
Product use Purification of RNA from Stabilized Blood.
Manufacturer/Supplier Biomātrica, Inc.
 5627 Oberlin Drive, Suite 120
 CA 92121
 info@biomatrica.com
 Contact Person: Scott Whitney
 (858) 550-0308
Emergency 1-866-379-6879 (NORTH AMERICA)

2. Hazards Identification

Physical state Liquid.
Appearance Clear, colorless liquid.
Emergency overview WARNING
 Causes skin, eye and respiratory tract irritation.
OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects
Routes of exposure Ingestion. Skin contact. Eye contact. Inhalation.
Eyes Causes eye irritation.
Skin Causes skin irritation.
Inhalation Causes respiratory tract irritation.
Ingestion May cause discomfort if swallowed.
Signs and symptoms Exposed individuals may experience eye tearing, redness, and discomfort. Irritation.
Potential environmental effects The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Tris-(hydroxymethyl)aminomethane	77-86-1	1 - 2.5

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures
Eye contact Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists. Immediately flush with plenty of water for up to 15 minutes.
Skin contact Remove contaminated clothes and rinse skin thoroughly with water. Get medical attention if irritation persists after washing.
Inhalation Move injured person into fresh air and keep person calm under observation. Get medical attention if any discomfort continues.
Ingestion Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Get medical attention if any discomfort occurs.

Notes to physician Provide general supportive measures and treat symptomatically.
General advice Get medical attention if any discomfort develops.

5. Fire Fighting Measures

Flammable properties The product is not flammable.

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media No restrictions known.

Protection of firefighters

Specific hazards arising from the chemical No unusual fire or explosion hazards noted.

Protective equipment and precautions for firefighters Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions Use standard firefighting procedures and consider the hazards of other involved materials.

Hazardous combustion products None known.

6. Accidental Release Measures

Personal precautions Avoid inhalation of vapors/spray and contact with skin and eyes. See Section 8 of the MSDS for Personal Protective Equipment.

Environmental precautions Environmental manager must be informed of all major releases.

Methods for cleaning up Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Clean surface thoroughly to remove residual contamination. Absorb spillage with suitable absorbent material. For waste disposal, see Section 13 of the MSDS.

Never return spills to original containers for re-use.

Other information Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling Avoid inhalation of vapors/spray and contact with skin and eyes. Local exhaust is recommended. Wear appropriate personal protective equipment (See Section 8). Observe good laboratory hygiene practices.

Storage Avoid high temperatures. Store away from incompatible materials.

8. Exposure Controls / Personal Protection

Occupational exposure limits No exposure limits noted for ingredient(s).

Exposure guidelines Follow standard monitoring procedures. No exposure standards allocated.

Engineering controls Ensure adequate ventilation, especially in confined areas. Provide adequate general and local exhaust ventilation.

Personal protective equipment

Eye / face protection Wear approved safety goggles.

Skin protection Wear appropriate chemical resistant gloves. Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory protection In case of inadequate ventilation use suitable respirator.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance Clear, colorless liquid.

Physical state Liquid.

Form Liquid.

Color	Clear. Colorless.
Odor	Low.
Odor threshold	Not available.
pH	7 - 7.5
Vapor pressure	Not available.
Vapor density	Not available.
Boiling point	Not available.
Melting point/Freezing point	Not available.
Solubility (water)	Not available.
Specific gravity	Not available.
Flash point	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
Other data	
Flammability (solid, gas)	Not applicable.

10. Chemical Stability & Reactivity Information

Chemical stability	This product is stable under expected conditions of use.
Conditions to avoid	Freezing. Excessive heat.
Incompatible materials	Strong oxidizing agents. Water reactive materials.
Hazardous decomposition products	None known.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
Tris-(hydroxymethyl)aminomethane (CAS 77-86-1)		
Acute		
<i>Oral</i>		
LD50	Rat	5900 mg/kg
Sensitization	No data available.	
Acute effects	May cause discomfort if swallowed.	
Local effects	Causes skin, eye and respiratory tract irritation.	
Carcinogenicity	Not classified.	
Mutagenicity	No data available.	
Reproductive effects	No data available.	
Teratogenicity	No data available.	
Symptoms and target organs	Exposed individuals may experience eye tearing, redness, and discomfort. Irritation. Skin irritation.	

12. Ecological Information

Ecotoxicity	The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and degradability	No data available.
Bioaccumulation / Accumulation	No data available.

Partition coefficient

Tris-(hydroxymethyl)aminomethane -2.31 (20°C)

Mobility in environmental media

The product is water soluble and may spread in water systems.

13. Disposal Considerations**Disposal instructions**

Dispose of in accordance with local regulations.

Waste from residues / unused products

Do not allow this material to drain into sewers/water supplies. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport Information**DOT**

Not regulated as a hazardous material by DOT.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

TDG

Not regulated as dangerous goods.

15. Regulatory Information**US federal regulations**

This product is hazardous according to OSHA 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No**Section 302 extremely hazardous substance (40 CFR 355, Appendix A)**

No

Section 311/312 (40 CFR 370)

Yes

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)

Not controlled

Canadian regulations

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status

Controlled

WHMIS classification

D2B - Other Toxic Effects-TOXIC

WHMIS labeling**Inventory status****Country(s) or region**
Canada**Inventory name**
Domestic Substances List (DSL)**On inventory (yes/no)***
Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
Not listed.

US. Massachusetts RTK - Substance List
Not regulated.

US. New Jersey Worker and Community Right-to-Know Act
Not regulated.

US. Pennsylvania RTK - Hazardous Substances
Not regulated.

Mexico regulations This safety data sheet was prepared in accordance with the Official Mexican Standard (NOM-018-STPS-2000).

16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings
Health: 2
Flammability: 0
Physical hazard: 0

NFPA ratings
Health: 2
Flammability: 0
Instability: 0

Disclaimer This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

Date of Initial Issue: 19 Nov 2012

Revision Date: N/A

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: DNase I (RNase-Free), 1500 units

Biomatrica, Inc.
5627 Oberlin Drive
Suite 120
San Diego, CA 92121
(858) 550-0308 (USA)

EMERGENCY CONTACT:
1-866-379-6879 (NORTH AMERICA)
WEB ADDRESS: www.biomatrica.com
MAIL: info@biomatrica.com

PRODUCT USE: For Research Use Only. Not for use in diagnostic procedures.

2. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical characterization

Description: Deoxyribonuclease I

Components	CAS/EC No.	Concentration
Deoxyribonuclease I, from bovine pancreas	CAS-No. 9003-98-9 EC No. 3.1.21.1	100%

3. HAZARDS IDENTIFICATION

Emergency Overview: This product has been classified as non-hazardous.

Classification according to Regulation (EC) No 1272-2008, GHS:
This product is not classified.

Classification according to EU Directive 67/548/EEC:
No applicable. This product has been classified as non-hazardous.

OSHA Hazard Overview (29CFR1910.1200): Not applicable.

Classification system:
NFAP ratings (scale 0-4)
Health = 0

Fire = 0
Reactivity = 0

HMIS ratings (scale 0-4)

Health = 0
Fire = 0
Reactivity = 0

WHMIS Classification: Not a WHMIS controlled product.

Potential Health Effects:

Inhalation: May be harmful if inhaled.

Ingestion: May be harmful if swallowed.

Skin Contact: May cause skin irritation.

Eye Contact: May cause eye irritation, redness and pain.

4. FIRST AID MEASURES

General: No special measures required.

Inhalation: Remove exposed person from source of exposure to fresh air. If not breathing, trained personnel should begin artificial respiration (AR). Get medical aid if cough or other symptoms appear.

Skin contact: Generally the product does not irritate the skin.

Eye contact: Rinse opened eye for several minutes under running water.

5. FIRE FIGHTING MEASURES

Flammable properties: Does not burn.

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: Not applicable.

Specific Hazards arising from the chemicals: Not known.

Special protective equipment and precaution for fire fighters: No special measures required.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Do not eat, drink or smoke while cleaning up. Wear protective clothing, safety glasses and impervious gloves. Ensure adequate ventilation, avoid all sources of ignition hot surfaces and open flames.

Environmental precautions: No special measures required.

Methods for containment and Clean-up: Wipe up with absorbent material.

7. HANDLING AND STORAGE

Handling: Keep container closed. Use good personal hygiene practices. Wash hands thoroughly before eating, drinking or smoking. Remove contaminated clothing and clean them before re-use.

Storage: Keep in a tightly closed container, stored in a cool, dry, well-ventilated area away from heat, sources of ignition and incompatibles. Avoid storage at direct sunlight. Keep container tightly closed and upright when not in use. Protect against physical damage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure limit: Contains no substances with occupational exposure limit values.

Personal protective equipment (PPE)

General Hygiene considerations: Do not eat, drink or store food in work areas. Remove contaminated clothing and protective equipment before entering or leaving work areas. Wash hands thoroughly after handling this product and before eating using the restroom or leaving work area.

Eye protection: Use chemical safety goggles and/or full face shield.

Skin protection: Avoid skin contact. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls.

Respiratory protection: Not normally required if product is used as directed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid

Appearance: white

Odour: enzyme odor

Odour threshold: Not available

Boiling point: decomposes

Freezing point: Not available

Density (water = 1): Not available

pH: 5

Partition coefficient n-Octanol/water: Not available

Vapour pressure: Not available

Vapour density: Not available

Evaporation rate: Not available

Solubility: readily miscible in water

Flash point: Not available

Lower flammable/Explosive limit: Not available

Upper flammable/Explosive limit: Not available

Auto-ignite temperature: Product is not self-igniting.

Decomposition temperature: Not available

10. STABILITY AND REACTIVITY

Chemical stability: Normally stable, if used according to specifications.

Possibility of hazardous reactions: Not applicable.

Conditions to avoid: Not applicable.

Incompatible materials: Not applicable.

Hazardous decomposition products: No dangerous decomposition products known.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity Values

Oral LD50: No data available

Inhalation LC50: No data available

Dermal LD50: No data available

Acute Effects

Inhalation: Not applicable.

Ingestion: Not applicable.

Skin Contact: Not applicable.

Eye Contact: Not applicable.

Chronic effects: No data available

Respiratory/Skin Sensitization: No data available

Carcinogenicity: No component of this product presents at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA, IARC and ACGIH®.

Teratogenicity/Embryotoxicity: No data available

Reproductive Toxicity: No data available

Mutagenicity: No data available

12. ECOLOGICAL INFORMATION

Aquatic toxicity: Not harmful to the aquatic environment

Persistence and degradability: Not available

Bioaccumulative potential: Not known

13. DISPOSAL CONSIDERATIONS

This product can be disposed of as waste water. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of products characteristics at time of disposal.

14. TRANSPORT INFORMATION

Shipping information: Not regulated under US Department of Transportation (DOT) and International Air Transport Association (IATA).

15. REGULATORY INFORMATION

SARA:

No chemical in this product are subject to the reporting requirements of SARA Title III, Section 302 Extremely Hazardous Substances.

No chemical in this product are subject to the reporting requirements of SARA Title III: Section 313 Toxic Chemicals

CERCLA Hazardous Substance: No chemical in this product are subject to the reportable quantity (RQ).

Clean Air Act, Section 112(r): This product does not contain any hazardous air pollutants.

California Proposition 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

TSCA (Toxic Substances Control Act): All ingredients are listed on the TSCA Inventory List.

None of the chemicals are listed under TSCA Section 12(b).

OSHA: None of the ingredients are listed.

WHMIS Canada: Listed on Canada’s DSL/NDSL List. Not a WHMIS controlled product.

16. OTHER INFORMATION

For Research Use Only. Not for use in diagnostic procedures.

This information in the above document is based on our present knowledge and believed to be correct but may not be construed to be all inclusive and should only be used as a guide. However, this information shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship nor shall Biomatrix be held liable for any damage resulting from handling or from contact with the above product.

Date of Initial Issue: 19 Nov 2012

Revision Date: N/A

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: DNase I Buffer

Biomatrica, Inc.
5627 Oberlin Drive
Suite 120
San Diego, CA 92121
(858) 550-0308 (USA)

EMERGENCY CONTACT:
1-866-379-6879 (NORTH AMERICA)
WEB ADDRESS: www.biomatrica.com
MAIL: info@biomatrica.com

PRODUCT USE: For Research Use Only. Not for use in diagnostic procedures.

2. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical characterization

Description: DNase I Buffer

Components	CAS/EC No.	Concentration
Tris-HCl	CAS-No. 1185-53-1	<1%
Sodium Chloride	CAS-No. 7647-14-5	<1%
Magnesium chloride	CAS-No. 7786-30-3	<1%

3. HAZARDS IDENTIFICATION

Emergency Overview: This product has been classified as non-hazardous.

Classification according to Regulation (EC) No 1272-2008, GHS:

This product is not classified.

Classification according to EU Directive 67/548/EEC:

No applicable. This product has been classified as non-hazardous.

OSHA Hazard Overview (29CFR1910.1200): Not applicable.

Classification system:

NFAP ratings (scale 0-4)

Health = 0

Fire = 0
Reactivity = 0

HMIS ratings (scale 0-4)

Health = 0
Fire = 0
Reactivity = 0

WHMIS Classification: Not a WHMIS controlled product.

Potential Health Effects:

Inhalation: May be harmful if inhaled.

Ingestion: May be harmful if swallowed.

Skin Contact: May cause skin irritation.

Eye Contact: May cause eye irritation, redness and pain.

4. FIRST AID MEASURES

General: No special measures required.

Inhalation: Remove exposed person from source of exposure to fresh air. If not breathing, trained personnel should begin artificial respiration (AR). Get medical aid if cough or other symptoms appear.

Skin contact: Generally the product does not irritate the skin.

Eye contact: Rinse opened eye for several minutes under running water.

5. FIRE FIGHTING MEASURES

Flammable properties: Does not burn.

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: Not applicable.

Specific Hazards arising from the chemicals: Not known.

Special protective equipment and precaution for fire fighters: No special measures required.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Do not eat, drink or smoke while cleaning up. Wear protective clothing, safety glasses and impervious gloves. Ensure adequate ventilation, avoid all sources of ignition hot surfaces and open flames.

Environmental precautions: No special measures required.

Methods for containment and Clean-up: Wipe up with absorbent material.

7. HANDLING AND STORAGE

Handling: Keep container closed. Use good personal hygiene practices. Wash hands thoroughly before eating, drinking or smoking. Remove contaminated clothing and clean them before re-use.

Storage: Keep in a tightly closed container, stored in a cool, dry, well-ventilated area away from heat, sources of ignition and incompatibles. Avoid storage at direct sunlight. Keep container tightly closed and upright when not in use. Protect against physical damage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure limit: Contains no substances with occupational exposure limit values.

Personal protective equipment (PPE)

General Hygiene considerations: Do not eat, drink or store food in work areas. Remove contaminated clothing and protective equipment before entering or leaving work areas. Wash hands thoroughly after handling this product and before eating using the restroom or leaving work area.

Eye protection: Use chemical safety goggles and/or full face shield.

Skin protection: Avoid skin contact. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls.

Respiratory protection: Not normally required if product is used as directed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid

Appearance: Colorless

Odour: Odourless

Odour threshold: Not available

Boiling point: Not available

Freezing point: Not available

Density (water = 1): Not available

pH: ~7

Partition coefficient n-Octanol/water: Not available

Vapour pressure: Not available

Vapour density: Not available

Evaporation rate: Not available

Solubility: completely miscible

Flash point: Not available

Lower flammable/Explosive limit: Not available

Upper flammable/Explosive limit: Not available

Auto-ignite temperature: Product is not self-igniting.

Decomposition temperature: Not available

10. STABILITY AND REACTIVITY

Chemical stability: Normally stable, if used according to specifications.

Possibility of hazardous reactions: Not applicable.

Conditions to avoid: Not applicable.

Incompatible materials: Not applicable.

Hazardous decomposition products: No dangerous decomposition products known.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity Values

Oral LD50: No data available

Inhalation LC50: No data available

Dermal LD50: No data available

Acute Effects

Inhalation: May cause respiratory tract irritation. .

Ingestion: Not applicable.

Skin Contact: Not applicable.

Eye Contact: Not applicable.

Chronic effects: No data available

Respiratory/Skin Sensitization: No data available

Carcinogenicity: No component of this product presents at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA, IARC and ACGIH®.

Teratogenicity/Embryotoxicity: No data available

Reproductive Toxicity: No data available

Mutagenicity: No data available

12. ECOLOGICAL INFORMATION

Aquatic toxicity: Not harmful to the aquatic environment

Persistence and degradability: Not available

Bioaccumulative potential: Not known

13. DISPOSAL CONSIDERATIONS

This product can be disposed of as waste water. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of products characteristics at time of disposal.

14. TRANSPORT INFORMATION

Shipping information: Not regulated under US Department of Transportation (DOT) and International Air Transport Association (IATA).

15. REGULATORY INFORMATION

SARA:

No chemical in this product are subject to the reporting requirements of SARA Title III, Section 302 Extremely Hazardous Substances.

No chemical in this product are subject to the reporting requirements of SARA Title III: Section 313 Toxic Chemicals

CERCLA Hazardous Substance: No chemical in this product are subject to the reportable quantity (RQ).

Clean Air Act, Section 112(r): This product does not contain any hazardous air pollutants.

California Proposition 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

TSCA (Toxic Substances Control Act): All ingredients are listed on the TSCA Inventory List.

None of the chemicals are listed under TSCA Section 12(b).

OSHA: None of the ingredients are listed.

WHMIS Canada: Listed on Canada's DSL/NDSL List. Not a WHMIS controlled product.

16. OTHER INFORMATION

For Research Use Only. Not for use in diagnostic procedures.

This information in the above document is based on our present knowledge and believed to be correct but may not be construed to be all inclusive and should only be used as a guide. However, this information shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship nor shall Biomatrix be held liable for any damage resulting from handling or from contact with the above product.

Date of Initial Issue: 19 Nov 2012

Revision Date: N/A

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: Sterile Water (DNase I Resuspension Water)

Biomatrica, Inc.
5627 Oberlin Drive
Suite 120
San Diego, CA 92121
(858) 550-0308 (USA)

EMERGENCY CONTACT:
1-866-379-6879 (NORTH AMERICA)
WEB ADDRESS: www.biomatrica.com
MAIL: info@biomatrica.com

PRODUCT USE: For Research Use Only. Not for use in diagnostic procedures.

2. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical characterization

Description: DEPC Treated Water

Components	Common Name/ Synonyms	CAS/EC No.	Concentration
Water	Water, Pure	CAS-No. 7732-18-5 EC-No. 231-791-2	99%

3. HAZARDS IDENTIFICATION

Emergency Overview: This product has been classified as non-hazardous.

Classification according to Regulation (EC) No 1272-2008, GHS:
This product is not classified.

Classification according to EU Directive 67/548/EEC:
No applicable. This product has been classified as non-hazardous.

OSHA Hazard Overview (29CFR1910.1200): Not applicable.

Classification system:
NFAP ratings (scale 0-4)
Health = 0

Fire = 0
Reactivity = 0

HMIS ratings (scale 0-4)

Health = 0
Fire = 0
Reactivity = 0

WHMIS Classification: Not a WHMIS controlled product.

Potential Health Effects:

Inhalation: May be harmful if inhaled.

Ingestion: May be harmful if swallowed.

Skin Contact: May cause skin irritation.

Eye Contact: May cause eye irritation, redness and pain.

4. FIRST AID MEASURES

General: No special measures required.

Inhalation: Remove exposed person from source of exposure to fresh air. If not breathing, trained personnel should begin artificial respiration (AR). Get medical aid if cough or other symptoms appear.

Skin contact: Generally the product does not irritate the skin.

Eye contact: Rinse opened eye for several minutes under running water.

5. FIRE FIGHTING MEASURES

Flammable properties: Does not burn.

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: Not applicable.

Specific Hazards arising from the chemicals: Not known.

Special protective equipment and precaution for fire fighters: No special measures required.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Do not eat, drink or smoke while cleaning up. Wear protective clothing, safety glasses and impervious gloves. Ensure adequate ventilation, avoid all sources of ignition hot surfaces and open flames.

Environmental precautions: No special measures required.

Methods for containment and Clean-up: Wipe up with absorbent material.

7. HANDLING AND STORAGE

Handling: Keep container closed. Use good personal hygiene practices. Wash hands thoroughly before eating, drinking or smoking. Remove contaminated clothing and clean them before re-use.

Storage: Keep in a tightly closed container, stored in a cool, dry, well-ventilated area away from heat, sources of ignition and incompatibles. Avoid storage at direct sunlight. Keep container tightly closed and upright when not in use. Protect against physical damage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure limit: Contains no substances with occupational exposure limit values.

Personal protective equipment (PPE)

General Hygiene considerations: Do not eat, drink or store food in work areas. Remove contaminated clothing and protective equipment before entering or leaving work areas. Wash hands thoroughly after handling this product and before eating using the restroom or leaving work area.

Eye protection: Use chemical safety goggles and/or full face shield.

Skin protection: Avoid skin contact. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls.

Respiratory protection: Not normally required if product is used as directed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid

Appearance: Colorless

Odour: Odourless

Odour threshold: Not available

Boiling point: 100 °C (212 °F)

Freezing point: 0 °C (32 °F)

Density (water = 1): 1.000 g/cm³ at 68°F

pH: 6-8

Partition coefficient n-Octanol/water: Not available

Vapour pressure: Not available

Vapour density: Not available

Evaporation rate: Not available

Solubility: completely miscible

Flash point: Not available

Lower flammable/Explosive limit: Not available

Upper flammable/Explosive limit: Not available

Auto-ignite temperature: Product is not self-igniting.

Decomposition temperature: Not available

10. STABILITY AND REACTIVITY

Chemical stability: Normally stable, if used according to specifications.

Possibility of hazardous reactions: Not applicable.

Conditions to avoid: Not applicable.

Incompatible materials: Not applicable.

Hazardous decomposition products: No dangerous decomposition products known.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity Values

Oral LD50: No data available

Inhalation LC50: No data available

Dermal LD50: No data available

Acute Effects

Inhalation: Not applicable.

Ingestion: Not applicable.

Skin Contact: Not applicable.

Eye Contact: Not applicable.

Chronic effects: No data available

Respiratory/Skin Sensitization: No data available

Carcinogenicity: No component of this product presents at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA, IARC and ACGIH®.

Teratogenicity/Embryotoxicity: No data available

Reproductive Toxicity: No data available

Mutagenicity: No data available

12. ECOLOGICAL INFORMATION

Aquatic toxicity: Not harmful to the aquatic environment

Persistence and degradability: Not available

Bioaccumulative potential: Not known

13. DISPOSAL CONSIDERATIONS

This product can be disposed of as waste water. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of products characteristics at time of disposal.

14. TRANSPORT INFORMATION

Shipping information: Not regulated under US Department of Transportation (DOT) and International Air Transport Association (IATA).

15. REGULATORY INFORMATION

SARA:

No chemical in this product are subject to the reporting requirements of SARA Title III, Section 302 Extremely Hazardous Substances.

No chemical in this product are subject to the reporting requirements of SARA Title III: Section 313 Toxic Chemicals

CERCLA Hazardous Substance: No chemical in this product are subject to the reportable quantity (RQ).

Clean Air Act, Section 112(r): This product does not contain any hazardous air pollutants.

California Proposition 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

TSCA (Toxic Substances Control Act): All ingredients are listed on the TSCA Inventory List.

None of the chemicals are listed under TSCA Section 12(b).

OSHA: None of the ingredients are listed.

WHMIS Canada: Listed on Canada's DSL/NDSL List. Not a WHMIS controlled product.

16. OTHER INFORMATION

For Research Use Only. Not for use in diagnostic procedures.

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