

# Material Safety Data Sheet

## E.Z.N.A. Mag-Bind® Tissue RNA Isolation Kit E-Z 96® Mag-Bind® Tissue RNA Kit



Omega Bio-Tek, Inc.

1850-E Beaver Ridge Circle, Norcross, GA 30071, USA.

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# Material Safety Data Sheet

Trade Name: DEPC H<sub>2</sub>O  
Date of Issue: 02/15/2010

## 1. Product and manufacturer information

Product Information:

Trade Name: DEPC Treated H<sub>2</sub>O  
Manufacturer: Omega Bio-Tek, Inc.  
1850-E Beaver Ridge Circle, Norcross, GA 30071  
Tel: (770) 931.8400. Fax: (770) 931.0230.

## 2. Composition:

Chemical Characteristics: < 0.1% aqueous solution of DEPC.  
Hazardous Components: According to OSHR 29 CFR & 1910.1200, any mixture that contains less than 1% by weight or volume of a non-carcinogenic hazardous component is not considered hazardous, unless there is evidence to the contrary. We do not consider DEPC to be hazardous. However gloves, lab coats and protective eyewear are recommended when using any chemical reagents.

## 3. Hazardous Identification:

Harmful by inhalation, contact with skin and if swallowed.

## 4. First Aid: remove contaminated clothing and call physician.

In case of eye contact: Immediately flush eyes with large amounts of water for at least 20 minutes adequate flushing is achieved by separating eyelids with clean fingers.  
In case of skin contact: Immediately wash skin with soap and copious amounts of water.  
If inhaled: Remove to an area with fresh air. Give artificial respiration if not Breathing and call medical emergency services. Oxygen may be required if respiration is difficult.  
If swallowed: Call a Physician immediately.

## 5. Fire-Fighting Measures

Extinguishing media: Carbon dioxide, dry chemical power or appropriate foam.  
Special Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin.

# Material Safety Data Sheet

Trade Name: DEPC H<sub>2</sub>O  
Date of Issue: 02/15/2010

## 6. Accidental Release Measures:

Precautionary Measures: Wear self-contained breathing apparatus, protective eyewear/goggles, rubber boots and thick rubber gloves.

Clean-up Procedure: Absorb on vermiculite or sand. Place in closed containers for disposal. Finally ventilate area and wash spills when pick-up is complete.

## 7. Handling and Storage:

Storage: Store tightly closed at 22-25°C.

## 8. Exposure Controls:

Rubber gloves, protective eyewear, NIOSH/MSH A-approved respirator, Safety shower and eye wash bottle. Mechanical exhaust required. Keep tightly closed. Wash hands thoroughly after handling. Do not get into eyes, on skin or on clothing. Do not breathe vapor. Severe eye irritant

## 9. Physical and Chemical Properties:

Physical State:	liquid	
Color:	colorless	
Odor:	odorless	
pH:	(25°C)	8.0
Viscosity:	(25°C)	N/A
Melting Point:		N/A
Boiling Point:		N/A
Ignition Temp:		N/A
Flashpoint:		>70°C
Explosion Level:	Lower:	N/A
	Upper:	N/A
Vapor Pressure:	(25°C)	N/A
Specific Gravity:	(25°C)	1.150 g/cm <sup>3</sup>
Water Solubility:	(25°C)	Soluble

## 10. Stability and Reactivity:

Substances to avoid: N/A

Hazardous combustion or Decomposition products: Nature of decomposition products not known.

# Material Safety Data Sheet

Trade Name: DEPC H<sub>2</sub>O  
Date of Issue: 02/15/2010

## 11. Toxicological Data:

Toxicity Data	N/A
Acute Effects of:	
Inhalation:	May be harmful by inhalation.
Eye Contact:	Causes severe irritation.
Skin Contact:	Causes skin irritation. Harmful by skin absorption
Ingestion:	Harmful if swallowed.
Prolonged exposure:	N/A
Chronic Effects:	N/A
RTECS Numbers:	N/A
Additional Information:	Handle with normal caution accorded to chemicals. Other harmful Properties cannot be ruled out.

## 12. Ecological Data:

N/A

## 13. Disposal:

Contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste. Contaminated packaging should be led in the same manner as the substance itself. Unless specified directly, non-contaminated packaging may be treated as house hold waste. Dispose in accordance with all applicable federal, state and local regulations

## 14. Transport Data:

N/A

## 15. Regulatory Data:

N/A

## 16. Other Data:

The above information is believed to be correct but does not purport to be all-inclusive and should be used only as a guide. Omega Bio-Tek shall not be held liable for consequences resulting from handling or from contact with the above product.

# Material Safety Data Sheet

Trade Name: Dnase I

Date of Issue: 7/23/2008

## 1. Product and manufacturer information

Product Information:

Trade Name: Dnase I  
Manufacturer: Omega Bio-Tek, Inc.  
1850-E Beaver Ridge Circle, Norcross, GA 30071  
Tel: (770) 931.8400. Fax: (770) 931.0230.

## 2. Composition:

Chemical Characteristics:

Hazardous Components: 9003-98-9 Nuclease, Deoxy

## 3. Hazardous Identification:

Hazard Description: Harmful by inhalation, and if swallowed.

Classification System: The classification was made according to the latest editions of international substances list, and expanded upon from company and literature data.

NFPA Ratings: (Scale: 0-4) Health = 0; Fire = 0; Reactivity = 0

WHMIS Ratings: (Scale: 0-4) Health = 0; Fire = 0; Reactivity = 0

## 4. First Aid:

Remove contaminated clothing and call physician.  
In case of eye contact: Immediately flush eyes with large amounts of water for at least 20 minutes. Adequate flushing is achieved by separating eyelids with clean fingers then consult a physician  
In case of skin contact: Immediately wash skin with soap and copious amounts of water.  
If inhaled: Remove to an area with fresh air. Consult physician in case of continuation of symptoms  
If swallowed: Call a physician immediately.

## 5. Fire-Fighting Measures

Extinguishing media: Carbon Dioxide, dry chemical powder or appropriate foam. Fight larger fires with water spray or resistant foam.

Special Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin.

# Material Safety Data Sheet

Trade Name: Dnase I

Date of Issue: 7/23/2008

## 6. Accidental Release Measures:

Precautionary Measures: Work in a well ventilated areas.  
Clean-up Procedure: Do not allow to enter sewers or ground water.

## 7. Handling and Storage:

Storage: Store tightly closed at -20°C.

## 8. Exposure Controls:

Rubber gloves, protective eyewear, Safety shower and eye wash bottle. Wash hands thoroughly after handling. Do not get into eyes, on skin or on clothing.

## 9. Physical and Chemical Properties:

Physical State:	liquid	
Color:	colorless	
Odor:	odorless	
pH:	(25°C)	7.0
Viscosity:	(25°C)	N/A
Melting Point:		N/A
Boiling Point:		Undetermined
Ignition Temp:		N/A
Flashpoint:		N/A
Explosion Level:	Lower:	N/A
	Upper:	N/A
Vapor Pressure:	(25°C)	N/A
Specific Gravity:	(25°C)	1.017 g/cm <sup>3</sup>
Water Solubility:	(25°C)	Soluble

## 10. Stability and Reactivity:

Substances to avoid: Strong acids and strong oxidants.

Hazardous combustion or

Decomposition products:

# Material Safety Data Sheet

Trade Name: Dnase I

Date of Issue: 7/23/2008

## 11. Toxicological Data:

Toxicity Data

Acute Effects of:

N/A

Inhalation:

May be sensitization by inhalation. Material is an irritant to mucous membranes and the upper respiratory tract.

Eye Contact:

Causes irritation.

Skin Contact:

Causes irritation.

Ingestion:

Harmful if swallowed.

## 12. Ecological Data:

Water Hazard Class 1: Slightly Hazardous for Water. Do not allow product to reach sewer or ground water.

## 13. Disposal:

Contact either the authorities in charge of approved waste disposal companies which will advise you on how to dispose of special waste. Do not allow product to reach sewer or ground water.

## 14. Transport Data:

N/A

## 15. Regulatory Data:

N/A

## 16. Other Data:

The above information is believed to be correct but does not purport to be all-inclusive and should be used only as a guide. Omega Bio-Tek shall not be held liable for consequences resulting from handling or from contact with the above product.

# Material Safety Data Sheet

Trade Name: DNase I Digestion Buffer

Date of Issue: 12/20/2008

## 1. Product and manufacturer information

Product Information:

Trade Name: DNase 1 Digestion Buffer

Manufacturer: Omega Bio-Tek, Inc.

1850-E Beaver Ridge Circle, Norcross, GA 30071

Tel: (770) 931.8400. Fax: (770) 931.0230.

## 2. Composition:

Chemical Characteristics: Aqueous solution of Tris (hydroxyl methyl) amino methane/hydrochloric acid.

Hazardous Components: According to OSHR 29 CFR & 1910.1200, any mixture that contains less than 1% by weight or volume of a non-carcinogenic hazardous component is not considered hazardous, unless there is evidence to the contrary. We do not consider DNase 1 Digestion Buffer to be hazardous. However, gloves, lab coats and protective eye wear are recommended when using any chemical reagents.

## 3. Hazardous Identification:

Not Applicable.

## 4. First Aid: remove contaminated clothing and call physician.

In case of eye contact: Immediately flush eyes with large amounts of water for at least 20 minutes. Adequate flushing is achieved by separating eyelids with clean fingers then consult a physician

In case of skin contact: Immediately wash skin with soap and copious amounts of water.

If inhaled: Remove to an area with fresh air. Give artificial respiration in not breathing and call medical emergency services. Oxygen may be required if respiration is difficult.

If swallowed: Wash out mouth with water only if conscious.

## 5. Fire-Fighting Measures

Extinguishing media: Use appropriate, non-combustible extinguishing media.

Special Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin.

# Material Safety Data Sheet

Trade Name: DNase I Digestion Buffer

Date of Issue: 12/20/2008

## 6. Accidental Release Measures:

Precautionary Measures: Wear self-contained breathing apparatus, protective eyewear/goggles, rubber boots and thick rubber gloves.

Clean-up Procedure: Absorb on vermiculite or sand. Place in closed containers for disposal. Finally ventilate area and wash spills when pick-up is complete.

## 7. Handling and Storage:

Storage: Store tightly closed at 22-25°C.

## 8. Exposure Controls:

Rubber gloves, protective eyewear, NIOSH/MSH –approved respirator, safety shower and eye wash bottle. Wash hands thoroughly after handling. Do not get into eyes, on skin or on clothing.

## 9. Physical and Chemical Properties:

Physical State:	liquid	
Color:	colorless	
Odor:	odorless	
pH:	(25°C)	7.5
Viscosity:	(25°C)	N/A
Melting Point:		N/A
Boiling Point:		N/A
Ignition Temp:		N/A
Flashpoint:		N/A
Explosion Level:	Lower:	N/A
	Upper:	N/A
Vapor Pressure:	(25°C)	N/A
Specific Gravity:	(25°C)	1.007 g/cm <sup>3</sup>
Water Solubility:	(25°C)	Soluble

## 10. Stability and Reactivity:

Substances to avoid: N/A

Hazardous combustion or

# Material Safety Data Sheet

Trade Name: DNase I Digestion Buffer

Date of Issue: 12/20/2008

Decomposition products:

Nature of decomposition products not known.

## 11. Toxicological Data:

Toxicity Data

Acute Effects of:

N/A

Inhalation:

May be harmful by inhalation.

Eye Contact:

May cause irritation.

Skin Contact:

May cause irritation.

Ingestion:

May be harmful if swallowed.

Prolonged Exposure:

N/A

Chronic Effects:

N/A

RTECS Number:

N/A

## 12. Ecological Data:

This product presents no specific danger to the environment.

## 13. Disposal:

For small quantities flush down sink with water. Make sure to observe all federal, state and local laws and requirements.

## 14. Transport Data:

N/A

## 15. Regulatory Data:

N/A

## 16. Other Data:

The above information is believed to be correct but does not purport to be all-inclusive and should be used only as a guide. Omega Bio-Tek shall not be held liable for consequences resulting from handling or from contact with the above product.

# Material Safety Data Sheet

Trade Name: MBW Buffer

Date of Issue: 7/18/2008

## 1. Product and manufacturer information

Product Information:

Trade Name: MBW Buffer  
Manufacturer: Omega Bio-Tek, Inc.  
1850-E Beaver Ridge Circle, Norcross, GA 30071  
Tel: (770) 931.8400. Fax: (770) 931.0230.

## 2. Composition:

Chemical Characteristics: Aqueous mix of substances listed below with non-hazardous additions.  
Hazardous Components: 50-01-1 guanidinium chloride (<50%)  
67-63-0 propane-2-ol (<50%)

## 3. Hazardous Identification:

Hazard description: Harmful  
NFPA Ratings: (Scale: 0-4) Health = 3; Fire = 3; Reactivity = 0  
WHMIS Ratings: (Scale: 0-3) Health = 3; Fire = 3; Reactivity = 0

## 4. First Aid:

In case of eye contact: Immediately flush eyes with large amounts of water for at least 20 minutes.  
Adequate flushing is achieved by separating eyelids with clean fingers. Call Physician.  
In case of skin contact: Immediately wash skin with soap and copious amounts of water.  
If inhaled: Remove to an area with fresh air, consult doctor in case of complaints  
If swallowed: Call a physician immediately.

## 5. Fire-Fighting Measures

Extinguishing media: CO<sub>2</sub>, extinguishing power or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Special Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin.

## 6. Accidental Release Measures:

Precautionary Measures: Wear self-contained breathing apparatus, protective eyewear/goggles, rubber boots and thick rubber gloves.

# Material Safety Data Sheet

Trade Name: MBW Buffer

Date of Issue: 7/18/2008

Clean-up Procedure: Absorb on vermiculite or sand. Place in closed containers for disposal.

Finally ventilate area and wash spills when pick-up is complete.

## 7. Handling and Storage:

Storage: Store tightly closed at 22-25°C.

## 8. Exposure Controls:

Rubber gloves, protective eyewear, NIOSH/MSH A-approved respirator, Safety shower and eye wash bottle. Wash hands thoroughly after handling. Do not get into eyes, on skin or on clothing.

## 9. Physical and Chemical Properties:

Physical State:	liquid	
Color:	colorless	
Odor:	characteristic	
pH:	(25°C)	7.0
Viscosity:	(25°C)	N/A
Melting Point:		N/A
Boiling Point:		100°C
Ignition Temp:		425°C
Flashpoint:		21-55°C
Explosion Level:	Lower:	2%
	Upper:	12%
Vapor Pressure:	(25°C)	43hPa
Specific Gravity:	(25°C)	1.05 g/cm <sup>3</sup>
Water Solubility:	(25°C)	Soluble

## 10. Stability and Reactivity:

Substances to avoid: N/A

Dangerous Reaction: Strong exothermic reaction with acids, reacts with alcohol, aminos, aqueous acids and alkalis

Hazardous combustion or

Decomposition products: Danger of toxic pyrolysis products.

# Material Safety Data Sheet

Trade Name: MBW Buffer

Date of Issue: 7/18/2008

## 11. Toxicological Data:

Toxicity Data

Acute Effects of:

N/A

Inhalation:

Harmful by inhalation.

Eye Contact:

May cause irritation.

Skin Contact:

May cause irritation.

Ingestion:

Harmful if swallowed.

Prolonged exposure:

N/A

Chronic Effects:

N/A

RTECS Numbers:

N/A

## 12. Ecological Data:

Water hazardous I: Slight hazardous to water, do not allow undiluted product or large quantity of it to reach ground water course or sewage system..

## 13. Disposal:

Must not be disposed of together with household garbage. DO NOT allow product to reach sewage system. Make sure to observe all federal, state and local laws and requirements.

## 14. Transport Data:

N/A

## 15. Regulatory Data:

N/A

## 16. Other Data:

The above information is believed to be correct but does not purport to be all-inclusive and should be used only as a guide. Omega Bio-Tek shall not be held liable for consequences resulting from handling or from contact with the above product.

# Material Safety Data Sheet

Trade Name: Proteinase K

Date of Issue: 9/12/2005

## 1. Product and manufacturer information

Product Information:

Trade Name: Proteinase K  
Manufacturer: Omega Bio-Tek, Inc.  
1850-E Beaver Ridge Circle, Norcross, GA 30071  
Tel: (770) 931.8400. Fax: (770) 931.0230.

## 2. Composition:

Chemical Characteristics: Proteinase  
254-457-8 Proteinase

## 3. Hazardous Identification:

Hazard Description: Harmful, May cause sensitization by inhalation and skin contact.

Classification System:

NFPA Ratings (Scale 0-4): Health = 1; Fire = 0; Reactivity = 0

WHMIS Ratings (Scale 0-4): Health = 1; Fire = 0; Reactivity = 0

## 4. First Aid: remove contaminated clothing and call physician.

In case of eye contact: Immediately flush eyes with large amounts of water for at least 20 minutes.

Adequate flushing is achieved by separating eyelids with clean fingers.

In case of skin contact: Immediately wash skin with soap and copious amounts of water then consult a doctor.

If inhaled: Remove to an area with fresh air. Consult doctor if necessary.

If swallowed: Call doctor immediately.

## 5. Fire-Fighting Measures

Extinguishing media: Carbon dioxide, dry chemical powder or appropriate foam.

Special Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin.

## 6. Accidental Release Measures:

Precautionary Measures: No Special measure required.

Clean-up Procedure: Pick up mechanically.

# Material Safety Data Sheet

Trade Name: Proteinase K

Date of Issue: 9/12/2005

## 7. Handling and Storage:

Storage: No special measure required.

## 8. Exposure Controls:

Rubber gloves, protective eyewear, NIOSH/MSH A-approved respirator, Safety shower and eye wash bottle. Wash hands thoroughly after handling. Do not get into eyes, on skin or on clothing. Do not breathe vapor, Sever eye irritant. Keep well away from heat, spark and open flame. Store in cool dry place.

## 9. Physical and Chemical Properties:

Physical State:	solid	
Color:	white	
Odor:	characteristic	
pH:	(25°C)	N/A
Viscosity:	(25°C)	N/A
Melting Point:		N/A
Boiling Point:		N/A
Ignition Temp:		N/A
Flashpoint:		>70°C
Explosion Level:	Lower:	N/A
	Upper:	N/A
Vapor Pressure:	(25°C)	N/A
Specific Gravity:	(25°C)	N/A
Water Solubility:	(25°C)	Soluble

## 10. Stability and Reactivity:

Substances to avoid:	None
Hazardous combustion or Decomposition products:	None

## 11. Toxicological Data:

Toxicity Data	N/A
Acute Effects of:	N/A

# Material Safety Data Sheet

Trade Name: Proteinase K

Date of Issue: 9/12/2005

Inhalation:	Irritating
Eye Contact:	Irritating
Skin Contact:	Irritating
Ingestion:	N/A
Prolonged exposure:	N/A
Chronic Effects:	N/A
RTECS Numbers:	N/A
Additional Information:	Handle with normal caution accorded to chemicals. Other harmful Properties cannot be rules out.

## 12. Ecological Data:

N/A

## 13. Disposal:

No special method required. Observe all federal, state and local laws.

## 14. Transport Data:

N/A

## 15. Regulatory Data:

N/A

## 16. Other Data:

The above information is believed to be correct but does not purport to be all-inclusive and should be used only as a guide. Omega Bio-Tek shall not be held liable for consequences resulting from handling or from contact with the above product.

# Material Safety Data Sheet

Trade Name: SPR Wash Buffer

Date of Issue: 09/12/2003

## 1. Product and manufacturer information

Product Information:

Trade Name: SPR Wash Buffer

Manufacturer: Omega Bio-Tek, Inc.

1850-E Beaver Ridge Circle, Norcross, GA 30071

Tel: (770) 931.8400. Fax: (770) 931.0230.

## 2. Composition:

Chemical Characteristics: Aqueous solution of TRIS (hydroxymethyl) amino methane/Hydrochloric acid, EDTA and Sodium chloride.

Hazardous Components: According to OSHR 29 CFR & 1910.1200, any mixture that contains less than 1% by weight or volume of a non-carcinogenic hazardous component is not considered hazardous, unless there is evidence to the contrary. We do not consider MPG Buffer to be hazardous. However gloves, lab coats and protective eyewear are recommended when using any chemical reagents.

## 3. Hazardous Identification:

May be harmful if swallowed. May be irritating to eyes and skin

## 4. First Aid:

Remove contaminated clothing and call physician.

In case of eye contact: Immediately flush eyes with large amounts of water for at least 20 minutes adequate flushing is achieved by separating eyelids, clean fingers.

In case of skin contact: Immediately wash skin with soap and copious amounts of water.

If inhaled: Remove to an area with fresh air. Give artificial respiration if not Breathing and call medical emergency services. Oxygen may be required if respiration is difficult.

If swallowed: Wash out mouth with water only if conscious.

## 5. Fire-Fighting Measures

Extinguishing media: Use appropriate, non-combustible extinguishing media.

Special Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin.

# Material Safety Data Sheet

Trade Name: SPR Wash Buffer

Date of Issue: 09/12/2003

## 6. Accidental Release Measures:

Precautionary Measures: Wear self-contained breathing apparatus, protective eyewear/goggles, rubber boots and thick rubber gloves.

Clean-up Procedure: Absorb on vermiculite or sand. Place in closed containers for disposal. Finally ventilate area and wash spills when pick-up is complete.

## 7. Handling and Storage:

Storage: Store tightly closed at 22-25°C.

## 8. Exposure Controls:

Rubber gloves, protective eyewear, NIOSH/MSH A-approved respirator, Safety shower and eye wash bottle. Wash hands thoroughly after handling. Do not get into eyes, on skin or on clothing.

## 9. Physical and Chemical Properties:

Physical State:	liquid	
Color:	colorless	
Odor:	odorless	
pH:	(25°C)	7.5
Viscosity:	(25°C)	N/A
Melting Point:		N/A
Boiling Point:		N/A
Ignition Temp:		N/A
Flashpoint:		N/A
Explosion Level:	Lower:	N/A
	Upper:	N/A
Vapor Pressure:	(25°C)	N/A
Specific Gravity:	(25°C)	1.010 g/cm <sup>3</sup>
Water Solubility:	(25°C)	Soluble

## 10. Stability and Reactivity:

Substances to avoid: N/A

Hazardous combustion or  
Decomposition products: Nature of decomposition products not known.

# Material Safety Data Sheet

Trade Name: SPR Wash Buffer

Date of Issue: 09/12/2003

## 11. Toxicological Data:

Toxicity Data	N/A
Acute Effects of:	
Inhalation:	May be harmful by inhalation.
Eye Contact:	May cause irritation.
Skin Contact:	May cause irritation.
Ingestion:	May be harmful if swallowed.
Prolonged exposure:	N/A
Chronic Effects:	N/A
RTECS Numbers:	N/A

## 12. Ecological Data:

This product presents no specific danger to the environment.

## 13. Disposal:

For small quantities flush down sink with water. Make sure to observe all Federal, State and Local laws and requirements.

## 14. Transport Data:

N/A

## 15. Regulatory Data:

N/A

## 16. Other Data:

The above information is believed to be correct but does not purport to be all-inclusive and should be used only as a guide. Omega Bio-Tek shall not be held liable for consequences resulting from handling or from contact with the above product.

# Material Safety Data Sheet

Trade Name: ZTL-1 Buffer

Date of Issue: 10/22/2009

## 1. Product and manufacturer information

Product Information:

Trade Name: ZTL-1 Buffer

Manufacturer: Omega Bio-Tek, Inc.

1850-E Beaver Ridge Circle, Norcross, GA 30071

Tel: (770) 931.8400. Fax: (770) 931.0230.

## 2. Composition:

Chemical Characteristics: Aqueous solution of Guanidine Thiocyanate.

Hazardous Components: 593-84-0 Guanidine Thiocyanate (20-50%)

151-21-3 Sodium Dodecyl Sulphate

## 3. Hazardous Identification:

Hazard Description: Harmful , R20/21/22-32. Harmful by inhalation, in contact with skin and if swallowed.

Classification System: The classification was made according to the latest editions of international substances list, and expanded upon from company and literature data.

NFPA Ratings: (Scale: 0-4) Health = 2; Fire = 0; Reactivity = 0

WHMIS Ratings: (Scale: 0-4) Health = 2; Fire = 0; Reactivity = 0

## 4. First Aid:

Remove contaminated clothing and call physician.

In case of eye contact: Immediately flush eyes with large amounts of water for at least 20 minutes.

Adequate flushing is achieved by separating eyelids with clean fingers.

In case of skin contact: Immediately wash skin with soap and copious amounts of water then consult a doctor.

If inhaled: Remove to an area with fresh air. Give artificial respiration if not breathing and call emergency services. Oxygen may be required if respiration is difficult.

If swallowed: Wash out mouth with water only if conscious. Call a physician immediately.

## 5. Fire-Fighting Measures

Extinguishing media: Carbon Dioxide, dry chemical powder or appropriate foam. Fight larger fires with water spray or resistant foam.

Special Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin.

# Material Safety Data Sheet

Trade Name: ZTL-1 Buffer

Date of Issue: 10/22/2009

## 6. Accidental Release Measures:

Precautionary Measures: Shut off all sources of ignition and evacuate area. Wear self-contained breathing apparatus, protective eyewear/goggles, rubber boots and thick rubber gloves.

Clean-up Procedure: Absorb on vermiculite or sand. Place in closed containers for disposal. Finally ventilate area and wash spills when pick-up is complete.

## 7. Handling and Storage:

Storage: Store tightly closed at 22-25°C.

## 8. Exposure Controls:

Rubber gloves, protective eyewear, NIOSH/MSH A-approved respirator, Safety shower and eye wash bottle. Wash hands thoroughly after handling. Do not get into eyes, on skin or on clothing.

## 9. Physical and Chemical Properties:

Physical State:	liquid	
Color:	colorless	
Odor:	odorless	
pH:	(25°C)	7.0
Viscosity:	(25°C)	N/A
Melting Point:		N/A
Boiling Point:		100°C
Ignition Temp:		N/A
Flashpoint:		>60°C
Explosion Level:	Lower:	N/A
	Upper:	N/A
Vapor Pressure:	(25°C)	N/A
Specific Gravity:	(25°C)	1.017 g/cm <sup>3</sup>
Water Solubility:	(25°C)	Soluble

## 10. Stability and Reactivity:

Substances to avoid: Strong acids and strong oxidants.

Hazardous combustion or

Decomposition products: Toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides, Hydrogen sulfide, and hydrogen cyanide.

# Material Safety Data Sheet

Trade Name: ZTL-1 Buffer

Date of Issue: 10/22/2009

## 11. Toxicological Data:

Toxicity Data	IPR-MUS LD50: 300 mg/kg NTIS AD277-6999
Acute Effects of:	N/A
Inhalation:	May be harmful by inhalation. Material is disruptive to mucous membranes and upper respiratory tract.
Eye Contact:	Causes severe irritation.
Skin Contact:	Causes skin irritation. Harmful by skin absorption.
Ingestion:	Harmful if swallowed.
Prolonged exposure:	Exposure to skin causes dermatitis
Chronic Effects:	N/A
RTECS Numbers:	XL12250000
Additional Information:	Contact with acids liberates very toxic gas. Handle with normal caution accorded to chemicals. Other harmful properties cannot be ruled out.

## 12. Ecological Data:

This product presents no specific danger to the environment.

## 13. Disposal:

Contact either the authorities in charge of approved waste disposal companies which will advise you on how to dispose of special waste. Contaminated packing should be handled in the same manner as the substance itself. Unless specified directly, non-contaminated packaging may be treated as household waste.

## 14. Transport Data:

N

N/A

## 15. Regulatory Data:

Labeling: Xn, harmful, flammable, R 20/21/22-32,

Irritating to eyes and skin, R36/38

## 16. Other Data:

The above information is believed to be correct but does not purport to be all-inclusive and should be used only as a guide. Omega Bio-Tek shall not be held liable for consequences resulting from handling or from contact with the above product.

# Material Safety Data Sheet

Trade Name: ZTL-2 Buffer

Date of Issue: 10/22/2009

## 1. Product and manufacturer information

Product Information:

Trade Name: ZTL-2 Buffer

Manufacturer: Omega Bio-Tek, Inc.

1850-E Beaver Ridge Circle, Norcross, GA 30071

Tel: (770) 931.8400. Fax: (770) 931.0230.

## 2. Composition:

Chemical Characteristics: Mixture of substances listed below with non-hazardous additions.

Hazardous Components: 60-00-4 edetic acid

151-21-3 sodium dodecyl sulphate

## 3. Hazardous Identification:

Hazard Description: Harmful by inhalation, in contact with skin and if swallowed.

Classification System: The classification was made according to the latest editions of international substances list, and expanded upon from company and literature data.

NFPA Ratings: (Scale: 0-4) Health = 0; Fire = 0; Reactivity = 0

WHMIS Ratings: (Scale: 0-4) Health = 0; Fire = 0; Reactivity = 0

## 4. First Aid:

In case of eye contact: Check for and remove any contact lenses. In case of contact immediately flush eyes with large amounts of water for at least 20 minutes. Cold water may be used. Then consult a doctor.

In case of skin contact: Immediately wash skin with soap and copious amounts of water then consult a doctor.

If inhaled: Remove to an area with fresh air. Give artificial respiration if not breathing and call medical emergency services. Oxygen may be required if respiration is difficult. Immediately call a doctor.

If swallowed: If swallowed, call a physician immediately.

## 5. Fire-Fighting Measures

Extinguishing media: Carbon dioxide, dry chemical powder or appropriate foam. Fight larger fires with water spray or alcohol resistant foam.

Special Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin.

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## 6. Accidental Release Measures:

Precautionary Measures: Wear self-contained breathing apparatus, protective eyewear/goggles, rubber boots and thick rubber gloves.

Clean-up Procedure: Absorb on vermiculite or sand. Place in closed containers for disposal. Finally ventilate area and wash spills when pick-up is complete.

## 7. Handling and Storage:

Storage: Store tightly closed at 22-25°C.

## 8. Exposure Controls:

Rubber gloves, protective eyewear, NIOSH/MSH A-approved respirator, Safety shower and eye wash bottle. Wash hands thoroughly after handling. Do not get into eyes, on skin or on clothing.

## 9. Physical and Chemical Properties:

Physical State:	liquid	
Color:	colorless	
Odor:	odorless	
pH:	(25°C)	8.0
Viscosity:	(25°C)	N/A
Melting Point:		N/A
Boiling Point:		N/A
Ignition Temp:		N/A
Flashpoint:		N/A
Explosion Level:	Lower:	N/A
	Upper:	N/A
Vapor Pressure:	(25°C)	N/A
Specific Gravity:	(25°C)	1.015 g/cm <sup>3</sup>
Water Solubility:	(25°C)	Soluble

## 10. Stability and Reactivity:

Substances to avoid: N/A

Hazardous combustion or

Decomposition products: Nature of decomposition of products not known.

# Material Safety Data Sheet

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## 11. Toxicological Data:

Toxicity Data	N/A
Acute Effects of:	
Inhalation:	May be harmful by inhalation. Material is disruptive to mucous membranes and upper respiratory tract.
Eye Contact:	Causes severe irritation.
Skin Contact:	Cause skin irritation. Harmful by skin absorption
Ingestion:	May be harmful if swallowed.
Prolonged exposure:	N/A
Chronic Effects:	N/A
RTECS Numbers:	N/A

## 12. Ecological Data:

Water hazardous class 2 (self-assessment): hazardous for water. Do not allow product to reach ground water course or sewage system. Danger to drinking water if even small quantities leak into the ground

## 13. Disposal:

Contact either the authorities in charge of approved waste disposal companies which will advise you on how to dispose of special waste. Contaminated packing should be handled in the same manner as the substance itself. Unless specified directly, non-contaminated packaging may be treated as household waste.

## 14. Transport Data:

N/A

## 15. Regulatory Data:

N/A

## 16. Other Data:

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