

Product: MASTAZYME MPO
REF: 735012

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1. Company Name

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2. Standard Diluent

2.1. Chemical Characterization / Information on Ingredients

Character	<i>aqueous, protein-containing mixture preserved with 0.01 % methylisothiazolone and 0.01 % bromonitrodioxane</i>
CAS-No.	<i>not determined</i>

2.2. Hazards Identification

Warnings	<i>Though complete toxicity information on this standard diluent is not available, none of its components are known to be toxic or hazardous at use concentrations. The buffer contains the mercury-free preservatives methylisothiazolone (0.01 %) and bromonitrodioxane (0.01 %), which can produce adverse health effects in their concentrated forms. For more specific toxicity information on these components, refer to the material safety data sheets available from the manufacturer (Boehringer Mannheim Corporation).</i>
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2.3. First Aid Measures

Eye Contact	<i>Promptly wash eyes with water or normal saline, lifting the upper and lower lids occasionally, until no evidence of chemical remains (approximately 15 minutes). Seek medical advice.</i>
Skin Contact	<i>Wash thoroughly with water and soap.</i>
Ingestion	<i>Wash out mouth with water provided person is conscious. Drink one cup of water or milk to dilute in the stomach. Seek medical device.</i>
Inhalation	<i>No special first aid measures necessary; inhalation or aspiration unlikely.</i>

2.4. Fire-Fighting Measures

Flash point	<i>Non-flammable</i>
Extinguishing Media	<i>No restriction</i>
Special Fire Fighting Procedure	<i>No special procedures are required. As with any fire, wear full protective clothing and self-contained breathing apparatus..</i>
Unusual Fire Fighting Procedure	<i>None</i>

2.5. Accidental Release Measures

Personal Protection	<i>Protective glasses, rubber gloves and special protective clothing.</i>
Steps after Spillage	<i>Absorb spill with an absorbent cloth, then wash the area thoroughly with soap and water.</i>
Waste Disposal Method	<i>Observe all federal, state and local laws when considering waste disposal methods.</i>

2.6. Handling and Storage

Handling	<i>Wear protective clothing. Avoid contact with eyes, skin and clothes. Open and handle container carefully. Thoroughly washing after use is recommended.</i>
Storage	<i>Store between +2°C and +8°C.</i>

2.7. Exposure Controls / Personal Protection

Personal Protection	<i>Protective glasses, rubber gloves and clothing. Thoroughly washing after use is recommended.</i>
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2.8. Physical and Chemical Properties

Physical State	<i>Liquid</i>	Flash Point	<i>N/A</i>
Color	<i>Green</i>	Ignition Temperature	<i>N/A</i>
Odor	<i>N/A</i>	Explosion Limits	<i>N/A</i>
pH-Value	<i>6.5 - 7.5</i>	Vapor Pressure	<i>N/A</i>
Boiling Point	<i>100°C</i>	Solubility in Water	<i>complete</i>
Melting Point	<i>N/A</i>	Viscosity	<i>N/A</i>

2.9. Stability and Reactivity

Stability	<i>Chemically stable</i>
Incompatibilities	<i>None known</i>
Hazardous Polymerisation	<i>Will not occur</i>
Hazardous Decomposition Products	<i>Toxic fumes and carbon monoxide, carbon dioxide, nitrogen oxides</i>

2.10. Toxicological Information

N/A

2.11. Ecological Information

N/A

3. Sample Diluent

3.1. Chemical Characterization / Information on Ingredients

Character	<i>Product contains 10 mg/L Proclin.</i>
CAS-No. of NaN_3	<i>Not determined</i>

3.2. Hazards Identification

Warnings *Toxic if swallowed. Substance slightly hazardous to the water supply.*

3.3. First Aid Measures

Eye Contact	<i>Promptly wash eyes with water for at least 15 minutes. Seek medical advice.</i>
Skin Contact	<i>Wash area with soap and water.</i>
Ingestion	<i>Consult a physician or poison control centre.</i>
Inhalation	<i>N/A</i>
Direction for Physician	<i>Symptomatic treatment by a physician.</i>

3.4. Fire-Fighting Measures

Extinguishing Media	<i>No restriction.</i>
Special Fire Fighting Procedure	<i>N/A</i>
Unusual Fire Fighting Procedure	<i>N/A</i>
Thermal Decomposition	<i>Dangerous decomposition is not anticipated.</i>

3.5. Accidental Release Measures

Personal Protection	<i>Protective glasses, rubber gloves and special protective clothing.</i>
Steps after Spillage	<i>Absorb spill with an absorbent cloth, then wash the area thoroughly with soap and water.</i>
Waste Disposal Method	<i>Observe all federal, state and local laws when considering waste disposal methods.</i>

3.6. Handling and Storage

Handling	<i>Wear protective clothing. Avoid contact with eyes, skin and clothes. Open and handle container carefully. Thoroughly washing after use is recommended.</i>
Storage	<i>Store between +2°C and +8°C.</i>

3.7. Exposure Controls / Personal Protection

Personal Protection	<i>Protective glasses, rubber gloves and clothing. Thoroughly washing after use is recommended.</i>
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3.8. Physical and Chemical Properties

Physical State	<i>Liquid</i>	Ignition Temperature	<i>N/A</i>
Color	<i>N/A</i>	Explosion Limits	<i>N/A</i>
Odor	<i>N/A</i>	Vapor Pressure	<i>N/A</i>
pH-Value	<i>N/A</i>	Solubility in Water	<i>Completely</i>
Boiling Point	<i>N/A</i>	Viscosity	<i>N/A</i>
Melting Point	<i>N/A</i>		
Flash Point	<i>N/A</i>		

3.9. Stability and Reactivity

Hazardous Reactions	<i>None known when used appropriately.</i>
Hazardous Decomposition Products	<i>Sodium azide may react with lead and copper plumbing. On disposal, flush with large amounts of water to minimize azide build-up.</i>

3.10. Toxicological Information

N/A

3.11. Ecological Information

N/A

4. Standard Diluent

4.1. Chemical Characterization / Information on Ingredients

Character	<i>aqueous solution contains 10 mg/l Proclin™300.</i>
CAS-No.	<i>not determined</i>

4.2. Hazards Identification

Warnings	<i>Though complete toxicity information on this conjugate buffer is not available, none of its components are known to be toxic or hazardous at use concentrations. The buffer contains the mercury-free preservatives methylisothiazolone (0.01 %), bromonitrodioxane (0.01 %) and Proclin™300, which can produce adverse health effects in their concentrated forms. For more specific toxicity information on these components, refer to the material safety data sheets available from the manufacturer (Boehringer Mannheim Corporation and Rohm and Haas, respectively).</i>
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4.3. First Aid Measures

Eye Contact	<i>Promptly wash eyes with water or normal saline, lifting the upper and lower lids occasionally, until no evidence of chemical remains (approximately 15 minutes). Seek medical advice.</i>
Skin Contact	<i>Wash thoroughly with water and soap.</i>
Ingestion	<i>Wash out mouth with water provided person is conscious. Drink one cup of water or milk to dilute in the stomach. Seek medical device.</i>
Inhalation	<i>No special first aid measures necessary; inhalation or aspiration unlikely.</i>

4.4. Fire-Fighting Measures

Flash point	<i>Non-flammable</i>
Extinguishing Media	<i>No restriction.</i>
Special Fire Fighting Procedure	<i>No special procedures are required. As with any fire, wear full protective clothing and self-contained breathing apparatus..</i>
Unusual Fire Fighting Procedure	<i>None</i>

4.5. Accidental Release Measures

Personal Protection	<i>Protective glasses, rubber gloves and special protective clothing.</i>
Steps after Spillage	<i>Absorb spill with an absorbent cloth, then wash the area thoroughly with soap and water.</i>
Waste Disposal Method	<i>Observe all federal, state and local laws when considering waste disposal methods..</i>

4.6. Handling and Storage

Handling	<i>Wear protective clothing. Avoid contact with eyes, skin and clothes. Open and handle container carefully. Thoroughly washing after use is recommended.</i>
Storage	<i>Store between +2°C and +8°C.</i>

4.7. Exposure Controls / Personal Protection

Personal Protection	<i>Protective glasses, rubber gloves and clothing. Thoroughly washing after use is recommended.</i>
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4.8. Physical and Chemical Properties

Physical State	<i>Liquid</i>	Flash Point	<i>N/A</i>
Color	<i>Red</i>	Ignition Temperature	<i>N/A</i>
Odor	<i>N/A</i>	Explosion Limits	<i>N/A</i>
pH-Value	<i>6.2 – 6.7</i>	Vapor Pressure	<i>N/A</i>
Boiling Point	<i>100°C</i>	Solubility in Water	<i>complete</i>
Melting Point	<i>N/A</i>	Viscosity	<i>N/A</i>

4.9. Stability and Reactivity

Stability	<i>Chemically stable</i>
Incompatibilities	<i>None known</i>
Hazardous Polymerisation	<i>Will not occur</i>
Hazardous Decomposition Products	<i>Toxic fumes and carbon monoxide, carbon dioxide, nitrogen oxides</i>

4.10. Toxicological Information

N/A

4.11. Ecological Information

N/A

5. TMB (Substrate for HRP Conjugate)

5.1. Chemical Characterization / Information on Ingredients

Character	<i>Product contains 0.05 % Tetramethyl Benzidine (TMB)</i>
CAS-No	<i>54827-17-7</i>
Classification	<i>Hazardous. Irritant</i>

5.2. Hazards Identification

Warnings *Toxic if swallowed. Irritant, handle with care.*

5.3. First Aid Measures

Eye Contact	<i>Promptly wash eyes with water for at least 15 minutes. Seek medical advice.</i>
Skin Contact	<i>Flush skin with copious amounts of water.</i>
Ingestion	<i>Wash out mouth with water provided person is conscious. Seek medical advice.</i>
Inhalation	<i>N/A</i>
Changing Clothes	<i>In case of severe contamination.</i>

5.4. Fire-Fighting Measures

Extinguishing Media	<i>Water spray, carbon dioxide, dry chemical powder or appropriate foam.</i>
Special Fire Fighting Procedure	<i>N/A</i>
Unusual Fire Fighting Procedure	<i>Emits toxic fumes under fire conditions.</i>
Thermal Decomposition	<i>Dangerous decomposition is not anticipated.</i>

5.5. Accidental Release Measures

Personal Protection	<i>Protective glasses, gloves and clothing</i>
Steps after Spillage	<i>Remove spilled fluid onto an inert material. Wash area with soap solution.</i>
Absorbent Material	<i>No restriction</i>
Waste Disposal Method	<i>Consult a specialist for disposal of the spilled substance.</i>

5.6. Handling and Storage

Handling	<i>Wear protective clothing. Open and handle container carefully.</i>
Storage	<i>Store between +2°C and +8°C.</i>
Other Precautions	<i>N/A</i>

5.7. Exposure Controls / Personal Protection

TLV	<i>No</i>
Personal Protection	<i>Protective glasses, gloves and clothing.</i>

5.8. Physical and Chemical Properties

Physical State	<i>Liquid</i>	Ignition Temperature	<i>N/A</i>
Color	<i>Yellow</i>	Explosion Limits	<i>N/A</i>
Odor, pH-Value	<i>N/A</i>	Vapor Pressure	<i>N/A</i>
Solubility in Water	<i>Soluble</i>	Boiling Point	<i>> 100°C</i>
Flash Point	<i>N/A</i>	Viscosity	<i>N/A</i>

5.9. Stability and Reactivity

Hazardous Reactions *N/A*
Hazardous Decomposition Products *Toxic fumes of carbon monoxide, carbon dioxide and nitrogen oxides.*

5.10. Toxicological Information

LD ₅₀ Oral	<i>Not known</i>	LD ₅₀ Skin	<i>Not known</i>
LD ₅₀	<i>Not known</i>	LD ₅₀ Inhalation	<i>Not known</i>

5.11. Ecological Information

Water Hazard Class *1 (own specification)*

6. Stop-Solution (1 N Sulfuric Acid)

6.1. Chemical Characterization / Information on Ingredients

Character	<i>Product contains 1 N Sulfuric Acid (H₂SO₄)</i>		
CAS-No of H ₂ SO ₄	<i>7664-93-9</i>	EINECS-No.	<i>213-639-5</i>
Classification	<i>C R:35 / S (12) 26, 30, 45 Very caustic, toxic, possible carcinogen</i>		

6.2. Hazards Identification

Warnings *Very caustic, toxic, possible carcinogen after inhalation, irritant, handle with care.*

6.3. First Aid Measures

Eye Contact	<i>Promptly wash eyes with water for at least 15 minutes. Seek medical advice.</i>
Skin Contact	<i>Flush skin with copious amounts of water and soap.</i>
Ingestion	<i>Wash out mouth with water provided person is conscious. Seek medical advice.</i>
Inhalation	<i>Remove to fresh air. If breathing becomes difficult, seek medical advice.</i>
Changing Clothes	<i>In case of severe contamination.</i>

6.4. Fire-Fighting Measures

Extinguishing Media	<i>Do not use water. Use carbon dioxide, dry chemical powder or appropriate foam.</i>
Special Fire Fighting Procedure	<i>Wear self-containing breathing apparatus and special protective clothes.</i>
Unusual Fire Fighting Procedure	<i>Emits toxic fumes under fire conditions.</i>
Thermal Decomposition	<i>N/A</i>

6.5. Accidental Release Measures

Personal Protection	<i>Protective glasses, gloves and clothing.</i>
Steps after Spillage	<i>Remove spilled fluid onto an inert material. Ventilate area. Wash area with soap solution. Collect contaminated fluid and material in a special closable container.</i>
Absorbent Material	<i>No restriction</i>
Waste Disposal Method	<i>Consult a specialist for disposal of the spilled substance.</i>

6.6. Handling and Storage

Handling	<i>Wear protective clothing. Open and handle container carefully.</i>
Storage	<i>Store between +2°C and +8°C.</i>
Other Precautions	<i>N/A</i>

6.7. Exposure Controls / Personal Protection

TLV	<i>No</i>
Personal Protection	<i>Protective glasses, rubber gloves and acid-resistant clothing; breathing apparatus in severe cases: thoroughly washing after use is recommended.</i>

6.8. Physical and Chemical Properties

Physical State	<i>Liquid</i>	Vapor Pressure	<i>N/A</i>
Color	<i>Colourless</i>	Boiling Point	<i>> 100°C</i>
Odor	<i>N/A</i>	Flash Point	<i>N/A</i>
pH-Value	<i>1.0 - 3.0</i>	Solubility in Water	<i>Soluble</i>

6.9. Stability and Reactivity

Hazardous Reactions *Incompatibility with bases, halogenides and metals.*
Hazardous Decomposition Products *Sulfur oxides.*

6.10. Toxicological Information

LD ₅₀ Oral	2140 mg/kg	LD ₅₀ Skin	Not known
LDL0	135 mg/kg	LD ₅₀ Inhalation (rat)	510 mg/m ³ (2h)

6.11. Ecological Information

Water Hazard Class 1 (*own specification*), *neutralization*

7. Disposal Considerations

Observe all Federal, State and Local laws concerning Health and Pollution.

8. Transport Information

N/A

9. Regulatory Information

N/A

10. Other Information

The information herein is believed to be correct as of the given data but is provided without warranty of any kind. The recipient of our products is responsible for observing any laws and guidelines applicable.