



MODERNWATER

MICROTOX CTM BIOREAGENT SAFETY DATA SHEET

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Supersedes/Cancel: N/A

1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Microtox Bioreagent

1.2 Relevant identified uses of the substance or mixture and uses advised against

For use in Microtox CTM.

1.3 Details of the supplier of the substance or mixture

Modern Water, Inc.

15 Reads Way, Suite 100

New Castle, DE 19720

Phone: (302) 669-6900

1.4 Emergency Telephone

Please call (302) 669-6900 or (855) 637-6426

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture [CLP classification]

Frozen yellow solution in a 60 mL Syringe containing viable vibrio fischeri, a non-toxic microorganism. All other salts and sugars present do not create any hazardous decompositions or spontaneous polymerization.

2.2 Label elements

Frozen mixture of *Vibrio fischeri*, salts and sugars in water.

2.3 Other hazard information:

No danger of flammability, toxicity or reactivity is expected.

3 INFORMATION ON THE INGREDIENTS

3.2 Mixtures

Component	CAS No.	Composition	Hazardous Characteristics
<i>Vibrio fischeri</i>	None	<5%	Do not ingest. May irritate.
Sodium chloride	7647-14-5	<5%	No flammability, toxicity or reactivity.
Lactose	64044-51-5	15%	No flammability, toxicity or reactivity.
Potassium chloride	7447-40-7	<5%	No flammability, toxicity or reactivity.
Magnesium sulfate	10034-99-8	<1%	Pre-diluted in production process before use. Reactivity is taken out.
Glucose (D-)	50-99-7	<5%	No flammability, toxicity or reactivity.
Hepes	7365-45-9	<5%	Pre-diluted in production process before use. Reactivity is taken out.
Calcium chloride	10035-04-8	<5%	No flammability, toxicity or reactivity.
Potassium hydroxide	1310-58-3	<1%	Pre-diluted in production process before use. Reactivity is taken out.

Water 7732-18-5 >95% None.

4 FIRST AID MEASURES

4.1 Description of first aid measures

Contact the local poison control center if accidentally ingested or is exposed to an open wound. Wash hands with soap and water if thawed bioreagent gets in contact with skin.

4.2 Most important symptoms and effects, both acute and delayed

If ingested or diarrhea, abdominal cramps, nausea, vomiting, headaches, bloody stools, etc. Symptoms associated with noncholera wound infection include swelling, pain, erythema, bullae, and necrosis. And symptoms associated with septicemia include fever, hypothermia, hypotension, acute respiratory distress syndrome, and multiple organ dysfunction.

4.3 Indication of immediate medical attention and special treatment needed

The presence of diarrhea, abdominal cramps, nausea, vomiting, headaches, bloody stools, etc. Symptoms associated with noncholera wound infection include swelling, pain, erythema, bullae, and necrosis. And symptoms associated with septicemia include fever, hypothermia, hypotension, acute respiratory distress syndrome, and multiple organ dysfunction.

5 FIRE-FIGHTING MEASURES

5.1 Extinguishing media

None.

5.2 Special hazards arising from the substance or mixture

None.

5.3 Special protective actions for firefighters

None.

6 ACCIDENTAL RELEASE OF MATERIAL

6.1 Personal precautions, protective equipment and emergency procedures

Safety glasses, gloves (latex or nitrile acceptable).

6.2 Environmental Precautions

Don't use around any open flame or in extremes in temperature and pressure or in the presence of strong reducers or oxidizers.

6.3 Methods and material for containment and cleaning up

Normal glass or plastic containers are okay. Only dispose in normal waste disposal if local and national ordinances allow it. Contact your appropriate national or state environmental agency. Nothing in this mixture is expected to react or polymerize into another chemical.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling

It is a recommendation that gloves are used on this product upon thawing. This is only as a precaution to a possible allergic reaction if the product comes in contact with skin.

7.2 Conditions for safe storage, including any incompatibilities

Product is only viable in frozen form. When thawed, product must be used immediately or stored refrigerated at 2-8°C for up to one week.

7.3 Specific end uses

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

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

It is recommended that safety glasses and gloves are used when the CTM Microtox Bioreagent is thawed.

8.2 Exposure controls

When not in use, product is stored frozen at -20°C.

8.3 Environmental exposure controls

Don't use around an open flame or extreme temperatures and pressures.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Product is frozen solid until use.

9.2 Other information

None

10 STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions of temperature, ventilation and atmospheric pressures.

10.2 Chemical stability

Stable under normal conditions of temperature, ventilation and atmospheric pressures.

10.3 Possibility of hazardous reactions

None expected.

10.4 Conditions to Avoid

Avoid exposure to high oxidizers, acids, bases or other reactive materials.

10.5 Incompatible materials

Avoid oxidizers, acids, bases and other reactive materials.

10.6 Hazardous decomposition products

None.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Gastroenteritis include diarrhea, abdominal cramps, nausea, vomiting, headaches, bloody stools, etc. Symptoms associated with noncholera wound infection include swelling, pain, erythema, bullae, and necrosis. And symptoms associated with septicemia include fever, hypothermia, hypotension, acute respiratory distress syndrome, and multiple organ dysfunction.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Not expected with the mixture of ingredients but not tested.

12.2 Persistence and degradability

None.

12.3 Bioaccumulative potential

Not tested.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

Not tested.

12.6. Other adverse effects

Only if ingested or open wound is exposed to thawed CTM Microtox Bioreagent. gastroenteritis include diarrhea, abdominal cramps, nausea, vomiting, headaches, bloody stools, etc. Symptoms associated with noncholera wound infection include swelling, pain, erythema, bullae, and necrosis. And symptoms associated with septicemia include fever, hypothermia, hypotension, acute respiratory distress syndrome, and multiple organ dysfunction may occur.

13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Save and dispose in accordance with local and national laws. Storing in metal, glass or plastic is acceptable.

14. TRANSPORT INFORMATION**14.1 UN Number**

None

14.2 UN Proper Shipping Name

None

14.3 Transport hazard class(es)

None

14.4 Packing group

None

14.5 Environmental hazards

None

14.6 Special precautions for user

If thawed but customer is not going to use it, empty contents into a closable glass or plastic vessel.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not required.

15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Non-hazardous, non-toxic.

15.2 Chemical safety assessment

Non-hazardous, non-toxic

16. OTHER INFORMATION

None.