SECTION 1: Identification

1.1. Product identifier

Product name : Enumerated Mycoplasma

Product synonym : Frozen Liquid based Microorganism Product

Trade name : Enumerated Mycoplasma

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Used for microbiological quality control

1.3. Supplier

Microbiologics, Inc.
200 Cooper Avenue North
Saint Cloud, MN 56303
+1.320.253.1640

1.4. Emergency telephone number

24 hour Emergency Number: United States: +1.866.928.0789 or +1.215.207.0061 (Carechem)
Canada: +1.800.579.7421 or +1.202.464.2554 (Carechem)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CAN/US)

Not classified

2.2. GHS Label elements, including precautionary statements

GHS CAN/US labeling

No labeling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-CAN Classification	GHS-US Classification
Glucose Broth	None	66.66	Not classified	Not classified
Phosphate Buffered Saline	None	26.67	Not classified	Not classified
Glycerin	(CAS-No.) 56-81-5	6.67	Not classified	Not classified

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Avoid the production of aerosols. If inhalation occurs, move to an area of fresh air and seek medical advice.

First-aid measures after skin contact : Non-irritant. If skin contact occurs, wash with an appropriate biocidal solution.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, get medical advice/attention.

First-aid measures after ingestion : Avoid hand to mouth contact. If ingested, seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : Inhalation of infectious materials may result in infection.

Symptoms/injuries after skin contact : None anticipated under normal product use conditions.

Symptoms/injuries after eye contact : Contact with eyes may cause infection.

Symptoms/injuries after ingestion : May be harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use suitable extinguishing media for surrounding fire.

Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Fire hazard : None.

Explosion hazard : None.

5.3. Advice for firefighters

Protection during firefighting : Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Notify all people working in the immediate area of the incident. Do not leave the area unattended (unless you are the only individual in the area). Designate another employee to divert traffic from the incident area. Use disposable gloves, moisture impervious aprons, and other protective clothing must be dictated by the standard operational procedures of each individual laboratory.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Stop the flow of material, if this is without risk.

Methods for cleaning up : Biohazard Spill Kits are available from commercial sources, or can be made with the following materials:

- A bottle of an aqueous germicidal solution
- One pair of disposable gloves
- Forceps
- One biohazard bag with closure
- One stack or roll of paper towels

Note: A sharps biohazard container should also be available for the collection of any broken material that could cause a cut or puncture wound (e.g. broken glass vial or tube).

Procedure:

1. After notifying all employees in the immediate area, collect the biohazard spill kit and immediately return to the area.
2. Put on the disposable gloves, and any other personal protective equipment as dictated by regulatory requirements or laboratory procedures.
3. To avoid injury due to broken material, such as packaging or labware, use the forceps to pick up as much material as possible, and carefully place the materials into the sharps biohazard container.
4. Cover area with paper towels to decrease spread of spill and the creation of an aerosol.
5. Saturate the spill area with germicidal solution. Keep the spill area moist with the germicidal solution for the appropriate amount of time as indicated on the germicidal solution used.
6. Wipe up the area with the paper towels. Place all used paper towels in the biohazard bag.
7. Following the cleanup, carefully remove the gloves, and place them into the biohazard bag.
8. Seal the biohazard bag.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Proper techniques must be employed to avoid exposure and contact with microorganism growth, and liquid suspensions. The microbiology laboratory personnel using this device must be trained, experienced, and demonstrate proficiency in processing, maintaining, storing and disposing of biohazard material.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : The viable biological material preparation must be stored at -80°C in the original sealed container. The microbiology laboratory must be equipped, and have the facilities to receive, process, maintain, store and dispose of biohazard material.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Glycerin (56-81-5)		
USA - OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (mist, total particulate) 5 mg/m³ (mist, respirable fraction)
Canada (Quebec)	VEMP (mg/m³)	10 mg/m³ (mist)
Alberta	OEL TWA (mg/m³)	10 mg/m³ (mist)
British Columbia	OEL TWA (mg/m³)	10 mg/m³ (mist)
New Brunswick	OEL TWA (mg/m³)	10 mg/m³ (mist)
Nunavut	OEL STEL (mg/m³)	20 mg/m³ (mist)
Nunavut	OEL TWA (mg/m³)	10 mg/m³ (mist)
Northwest Territories	OEL STEL (mg/m³)	20 mg/m³ (mist)
Northwest Territories	OEL TWA (mg/m³)	10 mg/m³ (mist)
Saskatchewan	OEL STEL (mg/m³)	20 mg/m³ (mist)
Saskatchewan	OEL TWA (mg/m³)	10 mg/m³ (mist)
Yukon	OEL TWA (mg/m³)	30 mppcf (mist) 10 mg/m³ (mist)

8.2. Exposure controls

Appropriate engineering controls : Local exhaust and general ventilation must be adequate to meet exposure standards.

Hand protection : protective gloves.

Eye protection : Safety glasses.

Skin and body protection : Wear suitable working clothes.

Respiratory protection : If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : Orange-red, clear

Odor : Odorless

Odor threshold : No data available

pH : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Flammability (solid, gas) : No data available

Vapor pressure : No data available

Relative vapor density at 20 °C : No data available

Relative density : No data available

Solubility : No data available

Log Pow : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

Explosion limits : No data available

Explosive properties : No data available

Oxidizing properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal and anticipated storage and handling conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

Avoid inhalation of infectious aerosols or ingestion.

10.5. Incompatible materials

Many chemicals may kill the organism enclosed. There are no additional hazards created by incompatible materials.

10.6. Hazardous decomposition products

When stored as directed, the biological material preparations are stable until the last day of the stated month of the expiration date. The length of storage does not affect the risk of infection.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Glycerin (56-81-5)	
LD50 oral rat	12600 mg/kg
LD50 dermal rabbit	> 10 g/kg
LC50 inhalation rat (mg/l)	> 570 mg/m³ (Exposure time: 1 h)

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : Not classified

: Not classified

Specific target organ toxicity – repeated exposure

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Aquatic acute : Not classified

Aquatic chronic : Not classified

Glycerin (56-81-5)	
LC50 fish 1	51 - 57 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
BCF fish 1	(no bioaccumulation)
Log Pow	-1.76

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Glycerin (56-81-5)	
BCF fish 1	(no bioaccumulation)
Log Pow	-1.76

12.4. Mobility in soil

Glycerin (56-81-5)	
Log Pow	-1.76

12.5. Other adverse effects

Ozone : Not classified

Effect on the ozone layer : No additional information available.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

Most Microbiologics microorganism strains ship according to UN classification UN3373. However, there are several Microbiologics microorganism strains which ship according to UN classification UN2814. The following catalog numbers ship per UN2814.

Microbiologics Catalog Number	Reference Collection Number	Microorganism Name
0231	ATCC® 700728™	*Escherichia coli* (serotype O157:H7)
0617	ATCC® 35150™	*Escherichia coli* (serotype O157:H7)
0861	NCTC 12900	*Escherichia coli* (serotype O157:H7)
01062	NCTC 8622	*Escherichia coli* (serovar O126:K71(B16):H2)
01097	CDC 99-3311	*Escherichia coli* (serotype O145:NM)
01098	CDC 00-3039	*Escherichia coli (serotype O45:H2)*
01099	CDC 02-3211	*Escherichia coli (serotype O121:H19)*
01100	CDC 03-3014	*Escherichia coli (serotype O26:H11)*
01101	CDC 06-3008	*Escherichia coli (serotype O103:H11)*
01102	CDC 2010C-3114	*Escherichia coli (serotype O111:H8)*
01104	ATCC® BAA-2326™	*Escherichia coli (serotype O104:H4)*

See product label to determine catalog number and organism name.
Visit www.microbiologics.com to obtain technical information bulletin TIB.2023 for most up to date information regarding UN2814 strains.

14.1. Basic shipping description

In accordance with TDG

TDG

UN-No. (TDG) : UN3373

TDG Primary Hazard Classes : 6.2 - Class 6.2 - Infectious Substances

Transport document description : UN3373 BIOLOGICAL SUBSTANCE, CATEGORY B, 6.2

Proper Shipping Name (TDG) : BIOLOGICAL SUBSTANCE, CATEGORY B

Hazard labels (TDG) : 6.2 - Infectious substances

TDG Special Provisions : 38 - A person must not handle, offer for transport or transport these dangerous goods in a large means of containment if they are in direct contact with the large means of containment.

Explosive Limit and Limited Quantity Index : 0

Excepted quantities (TDG) : E0

Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 4 kg,4L

UN-No. (TDG) : UN2814

TDG Primary Hazard Classes : 6.2 - Class 6.2 - Infectious Substances

Transport document description : UN2814 INFECTIOUS SUBSTANCE, AFFECTING HUMANS, 6.2

Proper Shipping Name (TDG) : INFECTIOUS SUBSTANCE, AFFECTING HUMANS

Hazard labels (TDG) : 6.2 - Infectious substances

TDG Special Provisions	:	16 - 1) The technical name of the most dangerous substance related to the primary class must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(i)(A) of Part 3, Documentation. The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4, Dangerous Goods Safety Marks. 2) subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical: a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S; b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S; c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S; d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S. An example in Canada is the “Food and Drugs Act”. 38 - A person must not handle, offer for transport or transport these dangerous goods in a large means of containment if they are in direct contact with the large means of containment. 84 - The infectious substances identified in subsection 7.1(7) of Part 7, Emergency Response Assistance Plan, require an emergency response assistance plan.
ERAP Index	:	See SP84
Explosive Limit and Limited Quantity Index	:	0
Excepted quantities (TDG)	:	E0
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	:	0.05 kg,0.05 L

14.2. Transport information/DOT

DOT

DOT NA no.	:	UN3373
UN-No.(DOT)	:	3373
Transport document description	:	UN3373 Biological substance, Category B, 6.2
Proper Shipping Name (DOT)	:	Biological substance, Category B
Contains Statement Field Selection (DOT)	:	
Class (DOT)	:	6.2 - Class 6.2 - Infectious substance (etiologic agent) 49 CFR 173.134
Division (DOT)	:	6.2
Dangerous for the environment	:	No
DOT Special Provisions (49 CFR 172.102)	:	A82 - The quantity limits in columns (9A) and (9B) do not apply to human or animal body parts, whole organs or whole bodies known to contain or suspected of containing an infectious substance.
DOT Packaging Exceptions (49 CFR 173.xxx)	:	134
DOT Packaging Non Bulk (49 CFR 173.xxx)	:	199
DOT Packaging Bulk (49 CFR 173.xxx)	:	None
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	4 L or 4 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	4 L or 4 kg
DOT Vessel Stowage Location	:	A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other	:	40 - Stow ‘‘clear of living quarters’’
Emergency Response Guide (ERG) Number	:	158
Other information	:	No supplementary information available.

DOT NA no.	:	UN2814
UN-No.(DOT)	:	2814
DOT Symbols	:	G - Identifies PSN requiring a technical name
Transport document description	:	UN2814 Infectious substances, affecting humans, 6.2
Proper Shipping Name (DOT)	:	Infectious substances, affecting humans
Contains Statement Field Selection (DOT)	:	
Class (DOT)	:	6.2 - Class 6.2 - Infectious substance (etiologic agent) 49 CFR 173.134
Division (DOT)	:	6.2

Hazard labels (DOT)	:	6.2 - Infectious substance

Dangerous for the environment	:	No
DOT Special Provisions (49 CFR 172.102)	:	A82 - The quantity limits in columns (9A) and (9B) do not apply to human or animal body parts, whole organs or whole bodies known to contain or suspected of containing an infectious substance.
DOT Packaging Exceptions (49 CFR 173.xxx)	:	134
DOT Packaging Non Bulk (49 CFR 173.xxx)	:	196
DOT Packaging Bulk (49 CFR 173.xxx)	:	None
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	50 mL or 50 g
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	4 L or 4 kg
DOT Vessel Stowage Location	:	B - (i) The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) ‘‘On deck only’’ on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
DOT Vessel Stowage Other	:	40 - Stow ‘‘clear of living quarters’’
Emergency Response Guide (ERG) Number	:	158
Other information	:	No supplementary information available.

14.3. Air and sea transport

IMDG

UN-No. (IMDG)	:	3373
Proper Shipping Name (IMDG)	:	BIOLOGICAL SUBSTANCE, CATEGORY B
Transport document description (IMDG)	:	UN 3373 BIOLOGICAL SUBSTANCE, CATEGORY B, 6.2
Class (IMDG)	:	6.2 - Infectious substances
UN-No. (IMDG)	:	2814
Proper Shipping Name (IMDG)	:	INFECTIOUS SUBSTANCE, AFFECTING HUMANS
Transport document description (IMDG)	:	UN 2814 INFECTIOUS SUBSTANCE, AFFECTING HUMANS, 6.2
Class (IMDG)	:	6.2 - Infectious substances

IATA

UN-No. (IATA)	:	3373
Proper Shipping Name (IATA)	:	Biological substance, category b
Transport document description (IATA)	:	UN 3373 Biological substance, category b, 6.2
Class (IATA)	:	6.2 - Infectious Substances
UN-No. (IATA)	:	2814
Proper Shipping Name (IATA)	:	Infectious substance, affecting humans
Transport document description (IATA)	:	UN 2814 Infectious substance, affecting humans, 6.2
Class (IATA)	:	6.2 - Infectious Substances

SECTION 15: Regulatory information

15.1. Canada National regulations

No additional information available

Glycerin (56-81-5)
Listed on the Canadian DSL (Domestic Substances List)

15.2. US Federal regulations

Glycerin (56-81-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.3. US State regulations

Glycerin (56-81-5)
U.S. - Massachusetts - Right To Know List
U.S. - Minnesota - Hazardous Substance List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

No data available

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.