

# SAFETY DATA SHEET

Confirms to OSHA Hazard Communication Standard (CFR 29 1910.1200) HazCom 2012



Product: MICROZYME-E No Foam Multiple Enzyme Detergent for Endoscopes- M60001

Revision Date: 25-Sep-2015

## SECTION 1 – IDENTIFICATION

### Product Identifier

Product Name: MICROZYME-E No Foam Multiple Enzyme Detergent for Endoscopes

Product Code: M60001

### Recommended Use of the Chemical and Restrictions for Use

Recommended Use: Detergent

Restrictions for Use: Use only as directed.

### Details of the Supplier

Manufactured for: Micro-Scientific  
755 Tri-State Parkway  
Gurnee, IL 60031 USA  
1-224-656-6502

### Emergency Phone Number

24-Hour Number: 1-800-535-5053

International: 1-352-323-3500

## SECTION 2 – HAZARDS IDENTIFICATION

### Classification

Hazard Class	Category
Skin irritation	2
Eye irritation	2A
Respiratory sensitization	1
Reproductive toxicity	2

### Label Elements

Hazard Symbols(s):



Signal Word(s): Danger

**Hazard Statement(s):** Causes skin irritation. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of damaging fertility or the unborn child.

**Precautionary Statement(s):** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash hands thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. In case of inadequate ventilation wear respiratory protection. Wear protective gloves/protective clothing/eye protection/face protection. If exposed or concerned: Get medical advice/attention. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center/doctor. Store locked up. Dispose of contents/container in accordance with all local/regional/national/international regulations.

### Other Hazards

10% of the mixture consists of ingredient(s) of unknown acute toxicity.

## SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Wt %
Sodium tetraborate decahydrate	1303-96-4	3-7
Octanoic acid, potassium salt	764-71-6	1-5
Subtilisins (proteolytic enzymes)	9014-01-1	0.1-1
Amylase, .alpha.-	9000-90-2	0.1-1
Lipase, triacylglycerol	9001-62-1	0.1-1

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Surfactant	proprietary	0.1-1
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The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

## SECTION 4 – FIRST AID MEASURES

### First Aid Measures

**Inhalation:** If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

**Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses if worn. If irritation persists, get medical attention.

**Ingestion:** If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

**Skin:** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

### Most Important Symptoms and Effects (Acute and Delayed)

**Inhalation:** May cause respiratory tract irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Eye Contact:** Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

**Ingestion:** May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

**Skin:** Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

### Indication of any Immediate Medical Attention and Special Treatment Needed

**Note to Physician:** Treat symptomatically.

## SECTION 5 – FIRE FIGHTING MEASURES

### Extinguishing Media

**Suitable:** Treat for surrounding material.

**Unsuitable:** None known.

### Specific Hazards Arising from Chemical

Products of combustion include but are not limited to: oxides of carbon.

### Protective Equipment and Precautions for Firefighters

Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

**Personal Precautions:** Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

**Environmental Precautions:** See Section 12 for ecological information.

### Methods and Material for Containment and Cleaning Up

Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE). Scoop up material and place in a disposal container. Absorb spillage to prevent material damage. Provide ventilation.

## SECTION 7 – HANDLING AND STORAGE

### Precautions for Safe Handling

**Handling:** Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not swallow. Handle and open container with care. Use only in well-ventilated areas. When using do not eat, drink, and smoke.

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**General Hygiene Advice:** Launder contaminated clothing before use. Wash hands before eating, drinking, or smoking.

## **Conditions for Safe Storage, Including any Incompatibilities**

**Storage Conditions:** Keep out of the reach of children. Keep container tightly closed.

**Incompatible Materials:** None known.

## **SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Control Parameters**

#### **Exposure Guidelines:**

<b>Chemical Name</b>	<b>ACGIH TLV</b>	<b>OSHA PEL</b>	<b>NIOSH IDLH</b>
Sodium tetraborate decahydrate (1303-96-4)	2 mg/m <sup>3</sup> (inhalable fraction)	Not available	Not available
Octanoic acid, potassium salt (764-71-6)	Not available	Not available	Not available
Subtilisins (proteolytic enzymes) (9014-01-1)	0.00006 mg/m <sup>3</sup>	Not available	Not available
Amylase, .alpha.- (9000-90-2)	Not available	Not available	Not available
Lipase, triacylglycerol (9001-62-1)	Not available	Not available	Not available
Surfactant	Not available	Not available	Not available

### **Appropriate Engineering Controls**

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor etc.) below recommended exposure limits.

### **Individual Protection Measures**

**Respiratory Protection:** In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Skin and Body Protection:** Wear suitable protective clothing.

**Eye/Face Protection:** Wear eye protection.

**General Work/Hygienic Practices:** Handle in accordance with good industrial hygiene and safety practice.

## **SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:** Blue liquid

**Odor:** Detergent

**Odor threshold:** Not determined

**pH:** 8.7

**Melting point/freezing point:** Not determined

**Initial boiling point and boiling range:** Not determined

**Flash point:** >93.3°C (>200°F) TCC

**Evaporation rate:** Not determined

**Flammability (solid, gas):** Not flammable

**Upper/lower flammability or explosive limits:** Not determined

**Vapor pressure:** Not determined

**Vapor density:** Not determined

**Relative density:** 1.1

**Solubility(ies):** Not determined

**Partition coefficient (n-octanol/water):** Not determined

**Auto-ignition temperature:** Not determined

**Decomposition temperature:** Not determined

**Viscosity:** Not determined

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## SECTION 10 – STABILITY AND REACTIVITY

**Reactivity:** Not reactive under normal conditions.

**Chemical stability:** Stable under recommended storage conditions.

**Possibility of hazardous reactions:** None under normal use.

**Conditions to avoid:** Heat. Incompatible materials.

**Incompatible materials:** None known.

**Hazardous decomposition products:** May include and are not limited to: oxides of carbon.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

**Likely Routes of Exposure:** Inhalation, skin contact, eye contact, ingestion

### Information Related to Physical, Chemical, and Toxicological Effects

See section 4 of this SDS.

### Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

**Carcinogenicity:** NTP: No IARC: No OSHA: No

### Numerical Measures of Toxicity

Product	
ATE (oral)	>2000 mg/kg, rat
ATE (dermal)	>2000 mg/kg, rabbit
ATE (inhalation)	Not available

### **Component Information:**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium tetraborate decahydrate (1303-96-4)	3493 mg/kg (rat)	>10000 mg/kg (rabbit)	Not available
Octanoic acid, potassium salt (764-71-6)	Not available	Not available	Not available
Subtilisins (proteolytic enzymes) (9014-01-1)	1800 mg/kg (rat)	Not available	Not available
Amylase, .alpha.- (9000-90-2)	>7500 mg/kg (rat)	Not available	>4.96 mg/l/4h (rat)
Lipase, triacylglycerol (9001-62-1)	Not available	Not available	Not available
Surfactant	Not available	Not available	Not available

## SECTION 12 - ECOLOGICAL INFORMATION

**Ecotoxicity:** Not established

**Persistence and degradability:** Not established

**Bioaccumulative potential:** Not established

**Mobility in soil:** No additional information available

**Other adverse effects:** No additional information available.

## SECTION 13 – DISPOSAL CONSIDERATIONS

See section 8 of this SDS for exposure controls and personal protection.

Dispose of the product and container in accordance with all applicable local, state, and federal regulations.

## SECTION 14 – TRANSPORT INFORMATION

**Note:** Classification changes based on quantity, packaging, and method of shipment. See current shipping paper for most up to date shipping information.

**DOT (Ground):** Not regulated

**IATA (Air):** Not regulated

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**IMDG (Vessel):** Not regulated

## SECTION 15 – REGULATORY INFORMATION

All ingredients in this product are listed or are excluded from listing on the US Toxic Substances Act (TSCA) Chemical Substance Inventory.

## SECTION 16 – OTHER INFORMATION

**Issue Date:** 25-Sep-2015

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designed and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**