

SAFETY DATA SHEET

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



Product: MICROZYME-M™ No Suds Multiple Enzyme Detergent- EMEJLWIN5L

Revision Date: 27-Apr-2015

SECTION 1 – IDENTIFICATION

Product Identifier

Product Name: MICROZYME-M™ No Suds Multiple Enzyme Detergent

Product Code: EMEJLWIN5L

Recommended Use of the Chemical and Restrictions for Use

Recommended Use: Detergent

Restrictions for Use: Use only as directed.

Details of the Supplier

Manufacturer: Micro-Scientific Industries
755 Tri-State Parkway
Gurnee, IL 60031
888-253-2536

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 |

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| | | |
|-------------------------|-------------|-------|
| Lipase, triacylglycerol | 9000-62-1 | 0.1-1 |
| Surfactant | proprietary | 0.1-1 |

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

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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.

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:

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---|--|---------------|---------------|
| Sodium tetraborate decahydrate (1303-96-4) | 2 mg/m ³ (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 ³ | 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

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Decomposition temperature: Not determined

Viscosity: Not determined

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

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IATA (Air): Not regulated

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

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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