SAFETY DATA SHEET  

Product: Micro-Scientific Enzyclean II NS- ENF1, ENF5, ENF32
Revision Date: 05-Jan-2016

SECTION 1 – IDENTIFICATION

Product Identifier
Product Name: Micro-Scientific Enzyclean II NS
Product Code: ENF1, ENF5, ENF32

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, LLC
755 Tri-State Parkway
Gurnee, IL 60031 USA
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
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Eye irritation | 2A
Respiratory sensitization | 1

Label Elements
Hazard Symbols(s):

Signal Word(s): Danger

Hazard Statement(s): Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary Statement(s): Wash hands thoroughly after handling. Wear eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. In case of inadequate ventilation wear respiratory protection. 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. Dispose of contents/container in accordance with local/regional/national/international regulations.

Other Hazards
6% of the mixture consists of ingredient(s) of unknown acute toxicity.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Wt %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin</td>
<td>56-81-5</td>
<td>5-10</td>
</tr>
<tr>
<td>Octanoic acid, potassium salt</td>
<td>764-71-6</td>
<td>1-5</td>
</tr>
<tr>
<td>Subtilisins (proteolytic enzymes)</td>
<td>9014-01-1</td>
<td>0.1-1</td>
</tr>
</tbody>
</table>

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.

Skin: In case of contact, immediately flush skin with plenty of water. Call a physician if irritation develops and persists.

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

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

**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:** May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

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

**Note to Physician:** Treat symptomatically.

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**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).

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**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. Provide ventilation.

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**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 or 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 container closed when not in use. Store in a dry, cool, and well-ventilated area. Keep out of reach of children.

**Incompatible Materials:** None known.

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**SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION**
Control Parameters

Exposure Guidelines:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin (56-81-5)</td>
<td>Not available</td>
<td>15 mg/m³</td>
<td>Not available</td>
</tr>
<tr>
<td>Octanoic acid, potassium salt (764-71-6)</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Subtilisins (proteolytic enzymes) (9014-01-1)</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
</tbody>
</table>

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: None required under normal conditions of use. 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 approved eye protection (properly fitted dust- or splash-proof chemical safety goggles) and face protection (face shield).

General Work/Hygienic Practices: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Green liquid
Odor: Spearmint
Odor threshold: Not determined
pH: 8.75
Melting point/freezing point: Not determined
Initial boiling point and boiling range: Not determined
Flash point: Not determined
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: 1.10
Solubility(ies): Not determined
Partition coefficient (n-octanol/water): Not determined
Auto-ignition temperature: Not determined
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

<table>
<thead>
<tr>
<th>Product</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE (oral)</td>
<td>&gt;2000 mg/kg, rat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATE (dermal)</td>
<td>&gt;2000 mg/kg, rabbit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATE (inhalation)</td>
<td>&gt;20 mg/l/4h, rat</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Component Information:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin (56-81-5)</td>
<td>12600 mg/kg (rat)</td>
<td>&gt;10 g/kg (rabbit)</td>
<td>Not available</td>
</tr>
<tr>
<td>Octanoic acid, potassium salt (764-71-6)</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Subtilisins (proteolytic enzymes) (9014-01-1)</td>
<td>1800 mg/kg (rat)</td>
<td>Not available</td>
<td>Not available</td>
</tr>
</tbody>
</table>

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
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: 05-Jan-2016
Revision Date: 05-Jan-2016
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