SECTION 1. Identification

Product identifier

Product No 10011
Product name Micrococcal Nuclease

Recommended use of the chemical and restrictions on use

Identified uses This product is intended for research purposes only.

Manufacturer, importer, supplier

Manufacturer address Cell Signaling Technology, Inc.
3 Trask Lane
Danvers, MA 01923
United States
TEL: +1 978 867 2300
FAX: +1 978 867 2400

Website www.cellsignal.com
Email address support@cellsignal.com
Emergency telephone number In case of emergency call CHEMTREC 1-800-424-9300

SECTION 2. Hazard(s) identification

Classification

This substance/mixture is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

GHS Label elements, including precautionary statements

Signal Word None.

Hazard statement(s) None.

Precautionary Statement(s) None.

Supplementary Hazard Information

Hazards not otherwise classified (HNOC) Not applicable.
SECTION 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerol</td>
<td>56-81-5</td>
<td>30-60</td>
</tr>
</tbody>
</table>

SECTION 4. First-aid measures

Eye contact  
Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.  
Consult a physician.

Skin contact  
Wash off with warm water and soap.

Inhalation  
Move to fresh air.

Ingestion  
Clean mouth with water and afterwards drink plenty of water.

Most important symptoms and effects, both acute and delayed

None.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Advice for emergency responders

General advice  
For further assistance, contact your local Poison Control Center.

Protection of first-aiders  
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

SECTION 5. Fire-fighting measures

Extinguishing media

Suitable Extinguishing Media  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media  
CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Explosion Data

Sensitivity to Mechanical Impact  
None.

Sensitivity to Static Discharge  
None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel  
Ensure adequate ventilation.

Other information  
No information available.

Environmental precautions
See Section 12 for additional information.

**Methods and material for containment and cleaning up**

- **Methods for containment**
  - Prevent further leakage or spillage if safe to do so.
  - Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

**SECTION 7. Handling and storage**

**Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

- **Technical measures/Storage conditions**
  - Keep containers tightly closed in a dry, cool and well-ventilated place.
- **Packaging material**
  - No information available.
- **Incompatible products**
  - Strong oxidizing agents.

**SECTION 8. Exposure controls/personal protection**

**Control parameters**

### Occupational exposure limit values

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH REL</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerol</td>
<td>-</td>
<td>TWA mist, total particulate: 15 mg/m(^3)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA mist, respirable fraction: 5 mg/m(^3)</td>
<td></td>
</tr>
</tbody>
</table>

**Appropriate engineering controls.**

Showers, eyewash stations, and ventilation systems.

**Individual protection measures, such as personal protective equipment**

Personal protective equipment (PPE) needs to be selected depending on the implemented engineering controls, frequency/duration of work activities and the concentrations of the hazardous substance.

- **Eye/face protection**
  - Safety glasses with side-shields
- **Skin and body protection**
  - Wear protective gloves/clothing.
- **Respiratory protection**
  - If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
- **Hygiene measures**
  - Handle in accordance with good industrial hygiene and safety practice.

**SECTION 9. Physical and chemical properties**

**Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>No information available</td>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Odor Threshold</td>
<td>No information available</td>
</tr>
<tr>
<td>pH</td>
<td>7.5</td>
<td>@ 25 °C</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 10. Stability and reactivity

Reactivity
No information available.

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions

- Hazardous polymerization: None under normal processing.

Conditions to Avoid
Keep away from open flames, hot surfaces and sources of ignition.

Incompatible Materials
Strong oxidizing agents.

Hazardous Decomposition Products
Thermal decomposition can lead to release of irritating gases and vapors: Carbon oxides (COx).

SECTION 11. Toxicological information

Information on likely routes of exposure

- Inhalation: May cause irritation of respiratory tract.
- Eye contact: May cause temporary eye irritation.
- Skin contact: Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Micrococcal Nuclease

**Ingestion**

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause drowsiness and dizziness.

**Information on toxicological effects**

This material should only be handled by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of this compound is not well defined.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerol</td>
<td>= 12600 mg/kg (Rat)</td>
<td>&gt; 10 g/kg (Rabbit)</td>
<td>&gt; 570 mg/m³ (Rat) 1 h</td>
</tr>
</tbody>
</table>

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Symptoms**

None.

**Serious eye damage/eye irritation**

Mild / Nonirritant.

**Sensitization**

No information available.

**Mutagenic effects**

No information available.

**Carcinogenicity**

No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible or confirmed carcinogen by IARC, ACGIH, NTP, or OSHA.

**Reproductive toxicity**

No information available.

**STOT - single exposure**

No information available.

**STOT - repeated exposure**

No information available.

**Target Organ Effects**

Eyes, Respiratory system, Kidney.

**Neurological effects**

No information available.

**Aspiration Hazard**

No information available.

**Other information**

glycerol: NOAEL (inhalation: 6 h/d, 5d/week) = 0.167 mg/L (Rat) 13 weeks
glycerol: LOAEL (inhalation: 6 h/d, 5d/week) = 1-4 mg/L (Rat) 2 weeks
(Source: IUCLID / Method: Directive 87/302/EEC, part B "Sub-chronic inhalation toxicity study: 90-day repeated dose study using rodent species")

---

### SECTION 12. Ecological information

**Ecotoxicity**

0% of the mixture consists of components of unknown hazards to the aquatic environment.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerol</td>
<td>-</td>
<td>LC50 51 - 57 mL/L (Oncorhynchus mykiss) 96 h</td>
<td>EC50 500 mg/L (Daphnia magna) 24 h</td>
</tr>
</tbody>
</table>

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

No information available

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Octanol-Water Partition Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerol</td>
<td>-1.76</td>
</tr>
</tbody>
</table>

**Other adverse effects**

No information available.

---

### SECTION 13. Disposal considerations

**Waste Disposal Methods**
Dispose of in accordance with all applicable national environmental laws and regulations.

**Disposal considerations**

Do not empty into drains; dispose of this material and its container in a safe way.

### SECTION 14. Transport information

This material is not subject to regulation as a hazardous material for shipping.

### SECTION 15. Regulatory information

#### North American Inventory Listing

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>TSCA 8(b)</th>
<th>TSCA 12(b)</th>
<th>DSL</th>
<th>NDSL</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerol</td>
<td>Listed</td>
<td>Not Listed</td>
<td>Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

#### Canadian Workplace Hazardous Materials Information System (WHMIS) Classification

This product does not meet the criteria for classification under the Hazardous Products Act.

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

- **Acute Health Hazard**: No
- **Chronic Health Hazard**: No
- **Fire Hazard**: No
- **Sudden Release of Pressure Hazard**: No
- **Reactive Hazard**: No

#### Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

#### CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

#### California Proposition 65

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

This product contains the following U.S. State Right to Know chemicals:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerol</td>
<td>Listed</td>
<td>Listed</td>
<td>Listed</td>
</tr>
</tbody>
</table>
10011 - Micrococcal Nuclease

U.S. FIFRA Label Information

This product does not contain any substances regulated as pesticides.

US Commerce Department - Export Administration Regulations Information

This product does not contain any substances regulated under the Chemical Weapons Convention (CWC).

U.S. Drug Enforcement Administration Information

This product does not contain any substances regulated under the DEA.

SECTION 16. Other information

Issuing Date: 2014-07-02
Revision Date: 2019-01-16

Disclaimer

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 a 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 designated 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