I. Identification:

Product name: Cell Lysis Buffer (10X)
Product Catalog: 9803
CAS number: Not applicable to mixtures
Manufacturer Supplier: Cell Signaling Technology

II. Composition/Information on Ingredients:

Note: Other than the ingredient listed below, this product is a mixture that contains >1% hazardous chemicals. According to 29CFR 1910.1200(d), ingredients at >1% concentration are not considered hazardous.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS#</th>
<th>Percent</th>
<th>Hazardous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triton X-100 (polyethylene glycol octylphenol ether)</td>
<td>9002-93-1</td>
<td>1%</td>
<td>Yes</td>
</tr>
</tbody>
</table>

III. Hazard Hazard Identification:

Emergency Overview of Hazardous ingredient: Triton X-100 (polyethylene glycol octylphenol ether):

Caution! Causes burns. Harmful if swallowed or inhaled. Aspiration may cause lung damage. Causes irritation to skin and respiratory tract.

Health Rating:
- 1 - Slight

Flammability Rating:
- 1 - Slight

Reactivity Rating:
- 1 - Slight

Contact Rating:
- 2 - Moderate

Lab Protective Equip:
- Goggles; Lab Coat; Fume Hood, Proper Gloves

Potential Health Effects:

Inhalation: Irritant to respiratory system. May cause coughing, shortness of breath.

Ingestion: Irritant. May cause nausea, vomiting and diarrhea. Aspiration during vomiting may cause lung damage.

Skin contact: Brief contact may have no effect. Prolonged or repeated contact may cause irritation, redness, itching, pain.

Eye contact: Irritant. May cause inflammation, tearing, blinking, redness, swelling of the conjunctiva, chemical burns to the retina.

Chronic exposure: No information found.

Aggravation of pre-existing conditions: No information found.

IV. First Aid Measures for hazardous ingredient: Triton X-100 (polyethylene glycol octylphenol ether):

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion: DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Call a physician.

Skin contact: Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

V. Fire Fighting Measures:

Flash point: Data not known.
Explosion: Not considered to be an explosion hazard.
Fire extinguishing media: Use fire extinguisher appropriate for surrounding fire.

VI. Accidental Release Measures:

Note: Product container volume is only 100 µl.
Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e.g., vermiculite, dry sand, earth), and place in a chemical waste container.

VII. Handling And Storage:

Store at –20°C in tightly closed container. For short term storage (1-2 weeks) Cell Lysis Buffer can be stored at 4°C.

VIII. Exposure Controls/Personal Protection

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the airborne exposure limits.

Skin Protection: Rubber or Neoprene Gloves and lab coat.

Eye protection: Chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

IX. Exposure Controls/Personal Protection:

Appearance and odor: Odorless, colorless liquid
Boiling Point: Data not known
Melting Point: Data not known
Vapor pressure: Data not known
Vapor Density (Air=1): Data not known
Solubility: Soluble in water

X. Stability and Reactivity:

Stability: Stable under ordinary conditions.
Hazardous polymerization: Will not occur.
Incompatibilities: Strong oxidizing agents, strong reducing agents.
Conditions to avoid: Heat.

XI. Toxicological Information:

For Triton X-100: Oral Rat LD50: 1800 mg/kg.
For polyethylene glycol octylphenol ether: Oral Rat LD50: 4190 mg/kg, Investigated as a mutagen.

CANCER LISTS:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>NTP Carcinogen</th>
<th>NTP Carcinogen</th>
<th>IARC Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triton X-100, polyethylene glycol octyphenol ether</td>
<td>No</td>
<td>No</td>
<td>None</td>
</tr>
</tbody>
</table>

XII. Ecological Information:

For Triton X-100:
Environmental Fate: Data not found.
Environmental Toxicity: Expected to be slightly toxic to aquatic life. The LC50/96-hour values for fish are between 1 and 10 mg/l.

XIII. Disposal Considerations:

Dispose of in accordance with federal, state and local requirements.

XIV. Transport Information: Not regulated.
Material Safety Data Sheet (MSDS) for Cell Lysis Buffer (10X)

XV. Regulatory Information:

Chemical Inventory Status - part 1

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TSCA</th>
<th>EC</th>
<th>Japan</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>polyethylene glycol octylphenol ether (9002-93-1)</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Chemical Inventory Status - part 2

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Korea</th>
<th>DSL</th>
<th>NDSL</th>
<th>Phil.</th>
</tr>
</thead>
<tbody>
<tr>
<td>polyethylene glycol octylphenol ether (9002-93-1)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Federal, State & International Regulations - part 1

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>RQ</th>
<th>TPQ</th>
<th>List</th>
<th>Chemical catg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>polyethylene glycol octylphenol ether (9002-93-1)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Federal, State & International Regulations - part 2

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>RCRA</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>polyethylene glycol octylphenol ether (9002-93-1)</td>
<td>261.33</td>
<td>8(d)</td>
</tr>
</tbody>
</table>

Chemical Weapons Convention: No

SARA 311/312

<table>
<thead>
<tr>
<th>Acute</th>
<th>Chronic</th>
<th>Fire</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Reactivity: (Mixture / liquid)

XVI. Other Information:

This mixture is sold only in microliter quantities for use in biological research use by personnel familiar with the toxicology of chemicals and who are well trained in good laboratory habits, such as avoiding spills, keeping hands clean at all times and not rubbing eyes with hands while working in the laboratory.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide for experienced personnel. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product. The burden of safe use of this material rests entirely with the user.

© Cell Signaling Technology, Inc. All rights reserved.