Section 1 - Chemical Product and Company Identification

Product Name: Protein Extraction Buffer  
Product Number: EXB050, EXB100, EXT020  
Street Address: 754 N. Pastoria Ave. Sunnyvale, CA 94085, US  
Technical Phone: 408.737.1702  
Fax: 408.732.7230

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>Hazardous Ingredient</th>
<th>CAS#</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDS (Sodium Dodecyl Sulfate)</td>
<td>151-21-3</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Triton X100 (polyethylene glycol octylphenyl ether)</td>
<td>9002-93-1</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

This product is not for use in humans. It is intended for research purposes only.

EMERGENCY OVERVIEW

SDS (Sodium Dodecyl Sulfate) (CAS: 151-21-3): May cause eye and skin irritation.

Potential Health Effects
Eye: Contact may cause transient eye irritation.  
Skin: May be harmful if absorbed through skin. Causes skin irritation.  
Ingestion: May be harmful if ingested. Causes digestive tract disturbances.  
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Triton X100 (CAS#: 9022-93-1): Harmful by ingestion. May cause irritation.

Potential Health Effects
Eye: Contact may cause transient eye irritation.  
Skin: May be harmful if absorbed through skin. Causes skin irritation.  
Ingestion: May be harmful if ingested. Causes digestive tract disturbances.  
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
**Skin:** Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

**Ingestion:** If victim is conscious and alert, wash out mouth with water. Never give anything by mouth to an unconscious person. Get medical aid if irritation or symptoms occur.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

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### Section 5 - Fire Fighting Measures

**SDS (CAS: 151-21-3):**

- **Flammability:** May be combustible at high temperature.
- **Flash Point:** Not available.
- **Autoignition Temperature:** Not available.
- **Explosion Limits:** Not available.
- **Extinguishing Media:** Use water spray, dry chemical, or carbon dioxide.
- **Firefight:** Wear protective clothing and self-contained breathing apparatus to prevent contact with skin and eyes.

**Triton X100 (CAS#: 9022-93-1):**

- **Flash Point:** Not available.
- **Autoignition Temperature:** Not available.
- **Explosion Limits:** Not available.
- **Extinguishing Media:** Use water spray, dry chemical, or carbon dioxide.
- **Firefight:** Wear protective clothing and self-contained breathing apparatus to prevent contact with skin and eyes.

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### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Remove all sources of ignition. Use a spark-proof tool. Do not let this chemical enter the environment.

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### Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

**Storage:** Store in a tightly closed container away from incompatible substances. Keep refrigerated. (Store below 4°C/39°F.)

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### Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Local exhaust may be necessary to control concentrations to acceptable levels.

**Personal Protective Equipment**

- **Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA’s eye and face protection regulations.
in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

**SDS (Sodium Dodecyl Sulfate) (CAS: 151-21-3):**
- Appearance: solid
- Odor: faint odor
- pH: Not available
- Vapor Pressure: Negligible.
- Vapor Density: Not available.
- Evaporation Rate: Negligible.
- Viscosity: Not available.
- Boiling Point: Not available.
- Freezing/Melting Point: Not available.
- Decomposition Temperature: Not available.
- Solubility: Soluble in water

**Triton X100 (CAS#: 9022-93-1):**
- Appearance: clear liquid
- Odor: None reported.
- pH: 7
- Vapor Pressure: Negligible.
- Vapor Density: Not available.
- Evaporation Rate: Negligible.
- Viscosity: Not available.
- Boiling Point: Not available.
- Freezing/Melting Point: Not available.
- Decomposition Temperature: Not available.
- Solubility: Soluble in phosphate buffered saline

Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** High temperatures, incompatible materials.

**Incompatibilities with Other Materials:** Strong acids and bases, strong oxidizers.

**Hazardous Decomposition Products:** carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Has not been reported.

Section 11 - Toxicological Information

**SDS (CAS: 151-21-3):**
- **Acute Toxicity:** Causes skin irritation
- **Chronic Effects on Humans:** Mutagenic effects: Mutagenic for bacteria and/or yeast. May cause damage to skin.
- **Exposure Remarks:**
  - LD50 rat oral: 1288 mg/kg
  - LC50 rat dust: >3900 mg/kg
  - LDL: rabbit skin: 10000 mg/kg

**Triton X100 (CAS #: 9002-93-1):**
- **Acute Toxicity:** Not available
- **Chronic Exposure:** Not available
- **Exposure Remarks:**
  - LD50 mouse intravenous: 1200 mg/kg
LD50 rat oral: 1800 - 3800 mg/kg

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.
Environmental: No information reported.
Physical: No information available.
Other: None.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3.

Section 14 - Transport Information

<table>
<thead>
<tr>
<th></th>
<th>US DOT</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDS (CAS: 151-21-3)</td>
<td>Not regulated as a hazardous material</td>
<td>Not regulated as a hazardous material</td>
</tr>
<tr>
<td>Triton X100 (CAS #: 9002-93-1)</td>
<td>Not regulated as a hazardous material</td>
<td>Not regulated as a hazardous material</td>
</tr>
</tbody>
</table>

Section 15 - Regulatory Information

**SDS (CAS: 151-21-3):**
WHIMIS (Canada): Class D-2B: Material causing other toxic effects.

**Triton X100 (CAS #: 9002-93-1):**
OHSA: Harmful by ingestion. May cause irritation
DSL: Listed
SARA 302, 313: Not listed
SARA 311, 312: Acute health hazard
Massachusetts Right To Know: Not listed
Pennsylvania Right To Know: Not listed
New Jersey Right To Know: Not listed
California Prop 65: Not listed