Name of the Product: HiPer® Protein Silver Staining Teaching Kit
Code No.: HTP002

Section 1: Chemical Identification & Company Information
Code No.: HTP002
Name of the Product: HiPer® Protein Silver Staining Teaching Kit
Produced by: HiMedia Laboratories Pvt. Ltd.
Address: 23, Vadhani Indl. Estate, LBS Marg, Mumbai 400 086, India.
Tel. No.: 2500 0970, 2500 1607 Fax No. 022 2500 2468

Section 2: Composition / Information on ingredients
Kit components

- **Fixative solution**
  Description: Proprietary mixture of various substances

- **Reducer solution**
  Description: Proprietary mixture of various substances

- **Staining Reagent 1 - (Silver Nitrate)**
  Description: Proprietary mixture of various substances

- **Developing solution**
  Description: Proprietary mixture of various substances

- **Stopping solution**
  Description: Proprietary mixture of various substances

- **Protein Marker**
- **Protein Sample 1**
- **Protein Sample 2**
- **Phosphate Buffered Saline**
  Description: Proprietary mixture of various substances

- **5X Sample Loading Buffer**
  Description: Proprietary mixture of various substances

- **Acrylamide / Bisacrylamide solution 30% (29:1)**

- **2.5 X Tris-SDS Buffer (pH 8.8)**
  Description: Proprietary mixture of various substances

- **5 X Tris-SDS Buffer (pH 6.8)**
  Description: Proprietary mixture of various substances
  - **Protein Marker**

- **5X Tris-Glycine-SDS Gel Running Buffer**
  Description: Proprietary mixture of various substances
Section 3: Hazards Identification
Special indication of hazards to humans and the environment.
Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation.

Section 4: First Aid Measures
In case of swallowing, wash out mouth with water provided person is conscious. In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. In case of inhalation, remove to fresh air. If breathing becomes difficult, call physician. In case of contact with eyes, wash with copious amounts of water for at least 15 minutes. Assure adequate washing by separating the eyelids with fingers. In serious conditions, call a physician, show the container or label.

Section 5: Fire Fighting Measures
Extinguishing Media. Water spray. Carbon dioxide, dry chemical powder or appropriate foam. Special firefighting procedures. Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Unusual fire and explosion hazards. Emits toxic fumes under fire conditions.

Section 6: Accidental Release Measures
Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete. Do not allow product to reach sewage system or any water course.

Section 7: Handling and Storage
Handling - Refer to Section 8
Storage - Store the contents as specified on the labels

Section 8: Exposure Controls / Personal Protection
Wear appropriate NIOSH/MSHA-approved respirator, chemical-resistant gloves, safety goggles, other protective clothing. Mechanical exhaust required.
Section 9 : Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Form</th>
<th>Colour</th>
<th>Odour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylamide Bisacrylamide solution</td>
<td>Liquid</td>
<td>Colourless</td>
<td>odourless</td>
</tr>
<tr>
<td>2.5 X Tris-SDS Buffer (pH 8.8)</td>
<td>Liquid</td>
<td>Colourless</td>
<td>odourless</td>
</tr>
<tr>
<td>5 X Tris-SDS Buffer (pH 6.8)</td>
<td>Liquid</td>
<td>Colourless</td>
<td>odourless</td>
</tr>
<tr>
<td>Ammonium persulphate (APS)</td>
<td>Solid</td>
<td>White</td>
<td>odourless</td>
</tr>
<tr>
<td>Tetramethylethylenediamine (TEMED)</td>
<td>Liquid</td>
<td>Colourless</td>
<td>Pungent</td>
</tr>
<tr>
<td>5 X Tris-Glycine-SDS Gel Running Buffer</td>
<td>Liquid</td>
<td>Colourless</td>
<td>odourless</td>
</tr>
<tr>
<td>5X Sample Loading Buffer</td>
<td>Liquid</td>
<td>Blue</td>
<td>Unpleasant</td>
</tr>
<tr>
<td>Phosphate Buffered Saline</td>
<td>Liquid</td>
<td>Colourless</td>
<td>odourless</td>
</tr>
<tr>
<td>Protein Sample 1</td>
<td>Liquid</td>
<td>Colourless</td>
<td>odourless</td>
</tr>
<tr>
<td>Protein Sample 2</td>
<td>Liquid</td>
<td>Colourless</td>
<td>odourless</td>
</tr>
<tr>
<td>Fixative solution</td>
<td>Liquid</td>
<td>Colourless</td>
<td>odourless</td>
</tr>
<tr>
<td>Reducer solution</td>
<td>Liquid</td>
<td>Colourless</td>
<td>odourless</td>
</tr>
<tr>
<td>Staining Reagent 1 - (Silver Nitrate)</td>
<td>Solid</td>
<td>White</td>
<td>odourless</td>
</tr>
<tr>
<td>Developing solution</td>
<td>Liquid</td>
<td>Colourless</td>
<td>odourless</td>
</tr>
<tr>
<td>Stopping solution</td>
<td>Liquid</td>
<td>Colourless</td>
<td>odourless</td>
</tr>
<tr>
<td>Protein Marker</td>
<td>Liquid</td>
<td>Blue</td>
<td>odourless</td>
</tr>
</tbody>
</table>

Section 10 : Stability and Reactivity

Stability : Product is stable if stored as per the conditions specified under storage of Section No. 7.

Conditions to avoid : Strong oxidizing agents, strong bases, or fire

Section 11 : Toxicological Information

Acute Effects : May be harmful if swallowed.
Exposure can cause : Stomach pains, vomiting, diarrhoea. Severe inflammation of the colon. Appears to penetrate well into bone and central nervous system. Possesses neuromuscular blocking activity.
Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.
Target organ(s) : G.I. system

Section 12 : Ecological Information

The potential effects of a single package on the environment are considerably low.
Hazard to drinking water only if large amounts enter the subsoil and waters.
Section 13: Disposal Considerations

**Product**
Must not be disposed off together with household garbage. Do not allow product to reach sewage system. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**
Dispose of as unused product.

Section 14: Transport Information

UN No.: Not applicable

Section 15: Regulatory Information

R-Phrases: 20/21/22 - 36/37/38
Harmful by inhalation.
Harmful in contact with skin.
Harmful if swallowed.
Irritating to the respiratory system.
Irritating to the skin.
Irritating to the eyes

S-Phrases: 26-36-46
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
Wear suitable protective clothing.
If swallowed, seek medical advice immediately and show this container label.

Section 16: Other Information

Disclaimer: For Teaching purpose only. Not for drug, household or other uses.
Warranty: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.