# 1. Information on the Substance/Preparation and Company

## 1.1 Catalog #
- **10-110007** Trypsin Solution (25 mg/mL in PBS)
- **10-100007** Trypsin-EDTA (2.5 mg/mL in 1mM EDTA Na in HBSS)

## 1.2 Company
Diagnostic HYBRIDS, Inc.
1055 East State Street, Suite 100
Athens, OH 45701, USA
(740) 589-3300 or (866) 344-3477

## 1.3 In emergencies
Call your local emergency center

# 2. Components and Hazardous Ingredients

<table>
<thead>
<tr>
<th>Kit Component</th>
<th>Hazardous Ingredients</th>
<th>Classification Substance</th>
<th>EINECS Nr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trypsin Solution</td>
<td>Trypsin</td>
<td>Xn; R:36/37/38, 45; S:22, 24, 26, 36/37</td>
<td>232-994-9</td>
</tr>
<tr>
<td>Trypsin-EDTA</td>
<td>Trypsin</td>
<td>Xn; R:36/37/38, 45; S:22, 24, 26, 36/37</td>
<td>232-994-9</td>
</tr>
<tr>
<td></td>
<td>EDTA</td>
<td>Xi; R:36/37/38; S:26, 36/37</td>
<td>205-358-3</td>
</tr>
</tbody>
</table>

Classification key: Toxic (T); Very toxic (T+); Harmful (Xn); Irritant (Xi); Dangerous for the environment (N); Oxidizing agent (O); Explosive (E); Flammable (F)

# 3. Hazards Identification
- Contains non-hazardous quantities of proprietary ingredients [OSHA Regulations (Standards-29CFR) Hazard Communication-1910.1200(i)(1)].
- Trypsin may cause skin, eye, and mucous membranes and upper respiratory tract irritation (lung sensitizer).

# 4. First Aid Measures

**Eye contact:**
- Rinse immediately with water for 15 minutes, occasionally lifting the upper and lower eyelids
- Consult a doctor/medical service

**Skin contact:**
- Rinse with plenty of water
- Remove clothing before washing
- Consult a doctor/medical service

**After inhalation:**
- Remove the victim into fresh air
- Consult a doctor/medical service

**After ingestion:**
- Consult a doctor/medical service

# 5. Fire Fighting Measures

**Suitable extinguishing media:**
- All non combustible extinguishing media allowed

**Unsuitable extinguishing media:**
- No data available

**Special exposure hazards:**
- No data available

**Instructions:**
- Take account of contaminated fire fighting water
- Use fire fighting water moderately and contain it

**Special protective equipment for firefighters:**
- No data available

# 6. Accidental Release Measures

**Personal protection:**
- See 8.2, below

**Environmental precautions:**
- Discharge according to local regulations

**Clean-up:**
- Take up liquid spill into absorbent material
- Wash clothing and equipment after handling
7. Handling and Storage

Handling:
- If solution is spilled: take up with an absorbent material; if contact is possible, wear gloves as protection.
- Remove and clean contaminated clothing
- Handle and open the container with care

Storage:
- -10° to -20°C
- Keep away from: heat sources

8. Exposure Controls/Personal Protection

8.1 Exposure Limits

<table>
<thead>
<tr>
<th>Chemical/Component</th>
<th>TLV/NIOSH REL</th>
<th>OSHA PEL</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trypsin</td>
<td>Not listed</td>
<td>Not listed</td>
<td>9087-70-1</td>
</tr>
<tr>
<td>EDTA (ethylenediaminetetraacetic acid tetrasyon)</td>
<td>Not listed</td>
<td>Not listed</td>
<td>6381-92-6</td>
</tr>
</tbody>
</table>

Note: Information in above table from NIOSH Pocket Guide to Chemical Hazards, 2005.

8.2 Control of Exposure

Eye protection: Safety glasses or Face shield
Hand protection: Gloves should be waterproof
- Suitable materials: Butyl rubber, natural rubber, neoprene, nitrile rubber, polyethylene, PVC
- Hands should be washed after working with this product.
Skin protection: Protective clothing
Respiratory protection: Area ventilation is generally adequate; avoid generation of dusts, mists or other airborne forms when working with the product
- Insufficient ventilation: wear respiratory protection

9. Physical and Chemical Properties

Colorless, clear, aqueous liquid; odorless

Note: Boiling and Freezing Points for all aqueous components are near those of pure water.

10. Stability and Reactivity

- Stability: Stable if stored in specified conditions (see labeling).
- Reactivity/Hazardous decomposition products: No hazardous decomposition products are formed in high quantities.
- Conditions/Materials to avoid: see Section 3. Hazards Identification

11. Toxicological Information

Acute toxicity:

<table>
<thead>
<tr>
<th>Trypsin</th>
<th>LD₅₀ oral, rat</th>
<th>&gt;5,000 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LD₅₀ oral, mouse</td>
<td>1,450 mg/kg</td>
</tr>
<tr>
<td>EDTA</td>
<td>LD₅₀ oral, rat</td>
<td>&gt;2,000 mg/kg</td>
</tr>
</tbody>
</table>

Chronic toxicity:

<table>
<thead>
<tr>
<th>Trypsin</th>
<th>Target Organ(s): skin, respiratory sensitizer, lungs,</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDTA</td>
<td>Target Organ(s): no data available</td>
</tr>
</tbody>
</table>

Note: Toxicity levels listed in the table above are for the ingredients when in their pure state.

Routes of exposure
- Ingestion, inhalation, eyes and skin
- Caution! Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.
Acute effects/symptoms

Trypsin: May cause skin, eye, and mucous membranes and upper respiratory tract irritation (lung sensitizer).

Chronic effects

Trypsin: Mutagenic effects: Classified POSSIBLE for human.

12. Ecological Information

Aquatic toxicity:

**EDTA**

<table>
<thead>
<tr>
<th>LC$_{50}$ (96 h):</th>
<th>&gt;500 mg/L (<em>Leuciscus idus</em>; Golden orfe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC$_{50}$ (24 h):</td>
<td>100 mg/L (<em>Daphnia magna</em>; water flea)</td>
</tr>
<tr>
<td>EC$_{50}$ (72 h):</td>
<td>10 - 100 mg/L (algae)</td>
</tr>
</tbody>
</table>

Toxic to daphnia and other aquatic invertebrates.

Toxicity to algae.

Other Information:

- **Effect on the ozone layer:** Not dangerous for the ozone layer (1999/45/EC)
- **Greenhouse effect:** No data available
- **Effect on waste water purification:** No data available

13. Waste Disposal Considerations

Disposal methods:

- Dispose of material according to local regulations.

14. Transport Information

USA: No restrictions.
Canada: No restrictions.
EU: No restrictions.

15. Regulatory Information

Classification according to directives 67/548/EEC and 1999/45/EC

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Risk and Safety Precaution</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Xn – harmful" /></td>
<td>R36/37/38: Irritating to eyes, respiratory system and skin</td>
</tr>
<tr>
<td><img src="image" alt="Xi – irritant" /></td>
<td>R42/43: May cause sensitization by inhalation and skin contact</td>
</tr>
<tr>
<td><img src="image" alt="N" /></td>
<td>R45: May cause cancer</td>
</tr>
<tr>
<td><img src="image" alt="N" /></td>
<td>R52: Harmful to aquatic organisms</td>
</tr>
<tr>
<td><img src="image" alt="N" /></td>
<td>S23: Do not breathe aerosols</td>
</tr>
<tr>
<td><img src="image" alt="N" /></td>
<td>S24/25: Avoid contact with skin and eyes</td>
</tr>
<tr>
<td><img src="image" alt="N" /></td>
<td>S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice</td>
</tr>
<tr>
<td><img src="image" alt="N" /></td>
<td>S36/37/39: Wear suitable protective clothing, gloves and eye/face protection</td>
</tr>
</tbody>
</table>

16. Other Information

- Based on: US 29 CFR 1910:1200(g); Canadian Hazardous Product Act, Part II; Directive 911155/EEC et seq.
- This product is designed for use by professionals.
- The above information is believed to be accurate and represents the information available to date, but Diagnostic Hybrids does not purport it to be all-inclusive; this should be used only as a guide.
- Refer to the Product Insert for this Product for additional details on the proper storage, handling, use, and disposal of the reagents included in this Product.
- Contact Diagnostic Hybrids, Inc. if additional information is required.

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