# 1 Chemical Product and Company Identification

**Identification of the product**

- **Product Code**: LPL-311
- **Supplier Name**: TOYOBO CO., LTD
- **Address**: 2-8, Dojima-Hama 2-chome Kita-ku, Osaka 530-8230, Japan
- **Department**: Biotechnology Overseas Sales and Marketing Department
- **Phone**: +81-6-6348-3843
- **Fax**: +81-6-6348-3833

**Recommended use and restrictions on use**

- **diagnostic product**

# 2 Hazard Identification

**Most Important Hazards and Effects**

The product might cause allergic reactions upon inhaling or skin contact because of the protein contained.

**GHS classification**

Classification not possible

# 3 Composition/Information on Ingredients

**Substance/Preparation**

- **Chemical Nature**: Lipoprotein lipase
- **CAS#**: 9004-2-8, amounts contained ca. 30%(W/W)
- **Common Chemical name**: Polyethylene glycol p-octylphenyl ether 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated
  - **Synonyms**: Triton X-100
  - **EC No.**: 618-344-0
  - **CAS No.**: 9002-93-1
  - **Concentration or concentration range**: ca. 2.0% (W/W)

# 4 First Aid Measures

**Inhalation**

- Remove to fresh air. Consult a physician when unpleasantness occurs.

**Skin Contact**

- Wash off with plenty of water. Consult a physician when inflammation on the skin occurs.

**Eye Contact**

- Wash off with running water for 15 minutes or longer immediately, consult a physician afterwards.

**Ingestion**

- Swill plentiful amount of water or milk for immediate vomiting, consult a physician.

# 5 Fire Fighting Measures

**Extinguishing Media**

- Water spray, dry chemical powder, or carbon dioxide etc.

**Protection of Firefighters**

- Avoid working at leeward.

# 6 Accidental Release Measures

**Personal Precautions**

- Wear protective gear to avoid eye/skin contact and inhalation. Do not work at leeward.

**Environmental Precautions**

- High concentrated waste fluid should not be directly discharged into rivers.

**Methods for Cleaning up**

- Use cloth, paper or anything similar to soak up the solution leaking out of the container. Take up under vacuum using dust collecting filter, wash residual spill with copious amounts of water. (Waste water should be treated with activated sludge etc.)

**Safety Data Sheet**

**Ingredients Contributing to the Hazard**

- Wear protective gear to avoid eye/skin contact and inhalation. Do not work at leeward.

---

**Data Source:**

- MSDS No. 407F
- Chemical Product and Company Identification
- Supplier Name: TOYOBO CO., LTD
- Address: 2-8, Dojima-Hama 2-chome Kita-ku, Osaka 530-8230, Japan
- Department: Biotechnology Overseas Sales and Marketing Department
- Phone: +81-6-6348-3843
- Fax: +81-6-6348-3833

---

**Hazard Identification**

- Classification not possible

---

**Composition/Information on Ingredients**

- **Substance/Preparation**
  - **Chemical Nature**: Lipoprotein lipase
  - **CAS#**: 9004-2-8, amounts contained ca. 30%(W/W)
  - **Common Chemical name**: Polyethylene glycol p-octylphenyl ether 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated
    - **Synonyms**: Triton X-100
    - **EC No.**: 618-344-0
    - **CAS No.**: 9002-93-1
    - **Concentration or concentration range**: ca. 2.0% (W/W)

---

**First Aid Measures**

- **Inhalation**
  - Remove to fresh air. Consult a physician when unpleasantness occurs.

- **Skin Contact**
  - Wash off with plenty of water. Consult a physician when inflammation on the skin occurs.

- **Eye Contact**
  - Wash off with running water for 15 minutes or longer immediately, consult a physician afterwards.

- **Ingestion**
  - Swill plentiful amount of water or milk for immediate vomiting, consult a physician.

---

**Fire Fighting Measures**

- **Extinguishing Media**
  - Water spray, dry chemical powder, or carbon dioxide etc.

- **Protection of Firefighters**
  - Avoid working at leeward.

---

**Accidental Release Measures**

- **Personal Precautions**
  - Wear protective gear to avoid eye/skin contact and inhalation. Do not work at leeward.

- **Environmental Precautions**
  - High concentrated waste fluid should not be directly discharged into rivers.

- **Methods for Cleaning up**
  - Use cloth, paper or anything similar to soak up the solution leaking out of the container. Take up under vacuum using dust collecting filter, wash residual spill with copious amounts of water. (Waste water should be treated with activated sludge etc.)

---

**Safety Data Sheet**

- **Ingredients Contributing to the Hazard**
  - Wear protective gear to avoid eye/skin contact and inhalation. Do not work at leeward.
Lipoprotein lipase

Handling and Storage

Handling

Technical Measures: Wear protective gear to avoid eye/skin contact and inhalation. Do not drop the container to prevent the content popping out.

Precautions: None specified.

Safe Handling Advice: Wear protective gear, avoiding contact on eye, skin and cloths.

Storage

Technical Measures: Keep sealed container in freezer.

Incompatible Products: None specified.

Storage Conditions: Store under -20°C.

Packaging Materials: Use the initial container of the product.

Exposure Controls/Personal Protection

Engineering Measures: Set local ventilation equipment.

Personal Protective Equipment:
- Respiratory Protection: Protecting mask.
- Hand Protection: Protecting gloves (rubbers or plastic gloves etc.).
- Eye Protection: Safety goggles.
- Skin and Body Protection: Long sleeve working wear.

Physical and Chemical Properties

Physical State: Powder

Colour/Odour: Light brown/No odour

pH: Approximate pH 7.5 in the case of 10 mg/ml in water.

Decomposition Temperature: No information available.

Flash Point: No information available.

Density: No information available.

Solubility: Easily soluble in water.

Stability and Reactivity

Stability: Stable at temperatures below -20°C. Proteins, when left for long at room temperature, might be degraded, which does not cause any hazardous reaction though.

Possible hazard reactions at specific condition: Not specified.

Conditions to avoid: Prolonged storage under higher temperature than room temperature and high humidity.

Materials to avoid: Any materials which dissolve or destroy proteins such as strong acid or alkali.

Hazardous Decomposition Products: No information available.

Toxicological Information

Acute Toxicity: Not available.

Local Effects: Not available.

Sensitization: Not available.

Ecological Information

Persistence/Degradability: Lipoprotein lipase decomposes and does not remain on the environment for long, since it consists of protein.

Disposal Considerations

Waste from Residues: Dispose of protein in accordance with all applicable local and national laws and regulations.

Contaminated packaging: Wash with copious amounts of water and waste conforming to local regulations depending on the type of the material.

Transport Information

International Regulations: None specified (Not classified as hazardous material as per the UN recommendation).

Specific Precautions: Keep at temperatures below -20°C.
15 Regulatory Information

"REACH Regulation   SVHC: Polyethylene glycol p-octylphenyl ether is included in the Authorization list (Annex XIV). The substance is necessary to stabilize the Lipoprotein lipase. As an additive, it is therefore considered part of the enzyme according to the substance definition under REACH (Art. 3(1)) and is not subject to authorisation (acc. To ECHA FAQ 0565)."

16 Other Information

Notice The contents specified here is made based on the documents, information or data which are currently available and subject to revision in the future. TOYOBO makes no warranty and assumes no liability whatsoever in connection with any use of this information.

For Customers in the European Economic Area