# Safety Data Sheet

## 1 Chemical Product and Company Identification

<table>
<thead>
<tr>
<th>Identification of the product</th>
<th>Catalase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Code</td>
<td>CAO-519</td>
</tr>
<tr>
<td>Supplier</td>
<td>TOYOBO CO., LTD.</td>
</tr>
<tr>
<td>Name</td>
<td></td>
</tr>
<tr>
<td>Address</td>
<td>2-8, Dojima Hama 2-chome, Kita-ku, Osaka 530-8230, Japan</td>
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<tr>
<td>Department</td>
<td>Biotechnology Overseas Sales and Marketing Department</td>
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<tr>
<td>Phone</td>
<td>+81-6-6348-3843</td>
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<tr>
<td>Fax</td>
<td>+81-6-6348-3833</td>
</tr>
<tr>
<td>Recommended use and restrictions on use</td>
<td>diagnostic product</td>
</tr>
</tbody>
</table>

## 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/Mixture               | Mixture |
| Chemical Nature                 | Catalase |
| CAS#                           | 9001-05-2 |
| Concentration or concentration range | ca. 0.6 % (W/V) |

## 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**: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **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, protective equipment and emergency procedure**: 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 and materials for containment and cleaning up**: Clean up the solution spilled with cloth, paper or anything similar to soak up the solution leaking out of the container.

## 7 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.
- **Storage Technical Measures**: Keep sealed container in freezer. None specified.
- **Incompatible substances and mixtures**: Store at 2-8 °C to prevent deactivating.
- **Packaging Materials**: Use the initial container of the product.

## 8 Exposure Controls/Personal Protection

- **Engineering Measures**: Provide shower and eye washing apparatus nearby.
- **Personal Protective Equipment**: Protecting mask, Protecting gloves(rubbers or plastic gloves etc.). Safety goggles.
- **Respiratory Protection**: Long sleeve working wear.
9 Physical and Chemical Properties

Physical State
- Liquid

Colour/Odour
- Gray-brown / No odour

pH
- pH 7.0 ± 0.5

Decomposition Temperature
- No information available.

Flash Point
- No information available.

Density
- No information available.

Solubility
- Easily soluble in water.

10 Stability and Reactivity

Stability
- Stable at 2-8 ℃. When left for long at room temperature, proteins might be degraded, which does not cause any hazardous reaction.

Possible hazard reactions at specific condition
- Not specified.

Conditions to avoid
- Prolonged storage at temperatures higher 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.

11 Toxicological Information

Acute Toxicity
- No information available.

Skin corrosion/irritation
- No information available.

Sensitization
- Might cause allergic reactions upon inhaling or skin contact because of the protein contained.

Germ cell mutagenicity
- No information available.

Carcinogenicity
- No information available.

Toxic to reproduction
- No information available.

Specific target organ toxicity
- No information available.

(Single exposure)

Specific target organ systemic toxicity
- No information available.

(Repeated exposure)

Aspiration toxicity
- No information available.

12 Ecological Information

Persistence/Degradability
- This product is biodegradable and does not remain on the environment for long.

13 Disposal Considerations

Residues
- Dispose of 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.

14 Transport Information

International Regulations
- Not specified (Not classified as hazardous material as per the UN recommendation).

15 Regulatory Information

Regulations
- Follow all of the laws and regulations in your country.

16 Other Information

Notice
- The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may be present unknown hazards and should be used with caution. The SDS is subject to revision as new information becomes available. The information in this SDS, to the best of our knowledge, is accurate and correct. However, TOYBO makes no warranty and assumes no liability whatsoever in connection with any use of this information.