1 Chemical Product and Company Identification
Identification of the product: Diaphorase
Product Code: DAD-301
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/Mixture: Diaphorase
Chemical Nature: DAD-301
CAS#: 9001-68-7
Concentration or concentration range: ca. 86% (W/W)
Stabilizer, etc: ca. 14% (W/W)
The ingredients known as hazardous are not included.

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:
Environmental Precautions: Wear protective gear to avoid eye/skin contact and inhalation. Do not work at leeward.
Methods and materials for containment and cleaning up: High concentrated waste fluid should not be directly discharged into rivers. 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.
Precautions: Do not drop the container to prevent the content popping out.
Storage:
Technical Measures: Keep sealed container in freezer
Incompatible substances and mixtures: None specified.
Storage Conditions: Store at -20°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:
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.
Safety Data Sheet

9 Physical and Chemical Properties

Physical State
Powder

Colour/Odour
Yellow /No odour

c. pH 6.0-7.5 in the case of 10mg/ml in water.

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 temperatures -20°C. 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.

Eye damage/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 applicable.

Domestic Regulations
Not applicable.

Specific Precautions
Keep at temperatures -20°C.

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 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, TOYOBO makes no warranty and assumes no liability whatsoever in connection with any use of this information.