Chemical Product and Company Identification

Identification of the product: D-Lactate dehydrogenase

Product Code: LCD-221

Supplier: TOYOBO CO., LTD.
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Recommended use and restrictions on use:

diagnostic product

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

Composition/Information on Ingredients

Substance/Mixture: Mixture
Chemical Nature: D-Lactate dehydrogenase
CAS#: 9028-36-8
Concentration or concentration range: ca. 85% (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: 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.

Fire Fighting Measures

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

Protection of Firefighters: Avoid working at leeward.

Accidental Release Measures

Environmental Precautions: 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.

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 below -20°C to prevent deactivating.
Packaging Materials: Use the initial container of the product.

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

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

Personal Precautions, protective equipment and emergency procedure.

Methods and materials for containment and cleaning up.
D-Lactate dehydrogenase (LCD-221)

First issue: Sep. 18, 2015
Reviced: Apr. 1, 2021
SDS No. 1118F

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Physical and Chemical Properties

Physical State Powder
Colour/Odour White /No odour
pH ca. pH 7.0 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.

Stability and Reactivity

Stability Stable at temperatures below -20!. 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.

Toxicological Information

Acute Toxicity No information available.
Skin corrosion/irritation
Eye damage/irritation
Sensitization
Aspiration toxicity
Carcinogenicity
Toxic to reproduction
Specific target organ toxicity (Single exposure)
Germ cell mutagenicity
Specific target organ systemic toxicity (Repeated exposure)

Ecological Information

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

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.

Transport Information

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

Regulatory Information

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

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