

Safety Data Sheet

1 Chemical Product and Company Identification

Identification of the product	Glutamate dehydrogenase
Product Code	GTD-211
Supplier	
Name	TOYOBO CO., LTD
Address	Osaka Umeda Twin Towers South, 1-13-1 Umeda Kita-ku, Osaka 530-0001, Japan
Department	Biotechnology Overseas Sales and Marketing Department
Phone	+81-6-6348-3846
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
GHS classification	Classification not possible

3 Composition/Information on Ingredients

Substance/Mixture	Mixture	
Chemical Identity		
Systematic chemical name	Glutamate dehydrogenase	Stabilizers, etc.
CAS No.	9001-46-1	Trade Secret
Concentration or concentration	ca. 40%	ca. 60%
Ingredients Contributing to the Hazard	No information available	

4 First Aid Measures

Inhalation	Remove person to fresh air and keep comfortable for breathing.
Skin Contact	If skin irritation occurs: Get medical
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
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
Protection of Firefighters	Avoid working at leeward.

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6 Accidental Release Measures

Personal Precautions

Wear protective gear to avoid eye/skin contact and inhalation.

Environmental Precautions

Highly 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.)

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.

Precautions

None specified.

Storage

Technical Measures

Keep sealed container in freezer.

Incompatible substances or

None specified.

Storage Conditions

Store under -20°C .

Packaging Materials

Use the initial container of the product.

8 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.

9 Physical and Chemical Properties

Physical State

Powder

Colour/Odour

White/No odour

pH

No information available.

Decomposition Temperature

No information available.

Flash Point

No information available.

Density

No information available.

Solubility

Easily soluble in water.

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10 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

Strong oxidant

Hazardous Decomposition Products

Nitrogen oxide, sulfur oxides

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 (Single exposure)

No information available.

Specific target organ systemic toxicity (Repeated exposure)

No information available.

Aspiration toxicity

No information available.

12 Ecological Information

Persistence/Degradability

on the environment for long, since it consists of protein.

13 Disposal Considerations

Waste from 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

14 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

Regulations

Follow all of the laws and regulations in your

Safety Data Sheet

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