



Safety Data Sheet

1 Chemical product and company identification

Identification of the product	β-Glucosidase
Product Code	BGH-101
SUPPLIER	TOYOBO CO.,LTD
Name	2-8, Dojima-Hama 2-chome Kita-ku, Osaka 530-8230, Japan
Address	Biotechnology Overseas Sales and Marketing Department
Telephone No.	+81-6-6348-3843
Fax No.	+81-6-6348-3833
Recommended uses and restrictions on use	diagnostic product

2 Hazards identification

Important hazards	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

Chemical product (a substance or a mixture)	Mixture	
Hazardous ingredients		
Chemical identity		
Systematic chemical name,	β-Glucosidase	Stabilizer, etc
Trivial, common or generic name		
CAS No.	9001-22-3	-
Concentration or concentration range	ca.12.5 %(w/w)	ca.87.5% (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	Rinse with water for several minutes or longer immediately. Consult a physician if eye irritation persists.
Ingestion	Swill plentiful amount of water or milk for immediate vomiting. Consult a physician when unpleasantness occurs.

5 Fire-fighting measures

Extinguishing media	Water spray, foam, dry chemical powder, or carbon dioxide etc.
Specific hazards	Toxic gases and fumes are generate in a fire
Specific extinguishing methods	Fire-fighting is done from the windward side.
Precautions for fire-fighters	In case of large fires, wear respiratory protection.

6 Accidental release measures

Personal precautions, protective equipment, and emergency procedure	Wear protective gear to avoid eye/skin contact and inhalation. Collection work is done from the windward side.
Environmental precautions	High concentrated waste fluid should not be directly discharged into rivers.
Methods and materials for containment and methods and materials for cleaning up(Recovery, neutralization and disposal)	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.)



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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 and store under -20°C.

Packaging materials

Use the initial container of the product.

8 Exposure controls and personal protection

Engineering controls

Provide eye washing apparatus nearby.

Personal protective equipment

Respiratory protection

Dust mask

Hand protection

Protecting gloves(rubber or plastic gloves etc.)

Eye protection

Safety goggles

Skin and body protection

Long sleeve working wear.

9 Physical and chemical properties

Physical State, Form, Colour

Powder, Light Yellow

Odour

No odour

pH

Approximate pH7.5 in the case of 10 mg/ml in water.

Flash point

No information available.

Density

No information available.

Solubility

Easily soluble in water.

Decomposition temperature

No information available.

Flammability (solid, gas)

No information available.

10 Stability and reactivity

Chemical stability and hazardous reactions

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.

Conditions to Avoid

Prolonged storage under higher temperature than room temperature and high humidity.

Incompatible materials

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.

Serious eye damage/eye irritation

No information available.

Respiratory sensitization

No information available.

Skin sensitization

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

Germ cell mutagenicity

No information available.

Carcinogenicity

No information available.

Reproductive toxicity

No information available.

Specific target organ toxicity-single exposure

No information available.

Specific target organ toxicity-repeated exposure

No information available.

Aspiration hazard

No information available.



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12 Ecological information

Ecotoxicity

Persistence and degradability

Bioaccumulative potential

Mobility in soil

No information available.

Components are biodegradable and considered not to remain in the environment for a long time.

Considered to be not bioaccumulative.

No information available.

13 Disposal considerations

Waste from residues

Contaminated container and Contaminated packaging

Dispose of protein in accordance with all applicable local and national laws and regulations.

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

14 Transport information

International Regulations

Special precautions for user

None specified (Not classified as hazardous goods as per the UN recommendation)

Keep at temperature below -20°C

15 Regulatory information

Regulations

Follow all of laws and regulaitos in your country.

16 Other information

Notice

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