



Safety Data Sheet

1 Chemical Product and Company Identification

Identification of the product	Cholesterol esterase
Product Code	COE-313
Supplier	
Name	TOYOBO CO., LTD.
Address	2-8, Dojima-Hama 2-chome, Kita-ku, Osaka 530-8230, Japan
Department	
Phone	+81-6-6348-3843
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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 Nature	Cholesterol esterase
CAS#	9026-00-0
Concentration or concentration range	ca. 24%
Stabilizer, etc	ca. 76%
Ingredients Contributing to the Hazard	
Common Chemical name	Polyethylene Glycol-p-octylphenyl Ether (Triton X-100)
Concentration or concentration range	ca 0.3% (W/W)
Chemical formula	$C_8H_{17}-C_6H_4O(C_2H_4O)_nH$
CAS#	9002-93-1

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	Wash off with running water for several minutes or longer immediately, consult a physician afterwards.
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	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 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.)



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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.

Safe Handling Advice

Wear protective gear, avoiding contact on eye, skin and cloths.

Storage

Technical Measures

Keep sealed container in freezer.

Incompatible Products

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

Light brown/No odour

pH

Approximate pH7.5 in the case of 10 mg/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 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

Any materials which dissolve or destroy proteins such as strong acid or alkali.

Hazardous Decomposition Products

No information available.

11 Toxicological Information

Acute Toxicity

It is considered that acute toxicity is extremely low.

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.



Product Name: Cholesterol esterase (COE-313)

First issue : May. 1. 2014

Revised: Apr. 1. 2021

SDS No.1018F

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12 Ecological Information

Acute hazards to the aquatic environment
Persistence /Degradability

Polyethylene Glycol-p-octylphenyl Ether (Triton X-100)
LC50/96hr = 3mg/L (bluegill)
Not rapidly biodegradable substance: 22% by BOD (National
Institute of Technology and Evaluation, Japan)
Enzyme and other organic ingredients are biodegradable and
does not remain on the environment for long.

13 Disposal Considerations

Waste from Residues

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

Specific Precautions

None specified (Not classified as hazardous material as
per the UN recommendation).
Keep at temperatures below -20°C.

15 Regulatory Information

REACH(EU)

Regulations

SVHC : Polyethylene Glycol-p-octylphenyl Ether
(Triton X-100)

Follow all of laws and regulations in your country.

16 Other Information

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