

SDS (SATETY DATA SHEET)

January 27, 2017

PRODUCT	BIOPROTAM(PROTAM)
HS CODE	2309.90
MANUFACTURER	DAESANG Corporation

1. Substance/preparation and company identification

Product:

BIOPROTAM(PROTAM)

Use: Feed Grade

Company:

Daesang Corporation.

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Emergency information:

+1 201 488 4010 for USA & Canada

+31 20 640 6080 for Europe

+82 2 2657 5337 for the rest countries

2. Hazard identification

No particular hazards known.

3. Composition/information on ingredients

Microbiology Cell that is not GMO is isolated from an amino acid fermentation broth and the cell slurry is dried

1) Total solid

originated from a fermentation broth: approx. 90%

- ① Organic material (Microbiology Cell, amino acids, residual sugars, fermentation residues and etc): (min. 80%)
- ② Inorganic material from fermentation media (Crude ash): (max. 10%)

2) Water (Loss on drying): approx. 10%

4. First-aid measures

General advice: No special precautions necessary.

5. Fire-fighting measures

Suitable extinguishing media:
water, carbon dioxide, foam, dry extinguishing media

Specific hazards:
hydrogen chloride, nitrous gases
The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:
Wear a self-contained breathing apparatus.

Further information:
Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Personal precautions: Avoid dust formation.

Environmental precautions: Do not empty into drains.

Methods for cleaning up or taking up:
For small amounts: Sweep/shovel up. For large amounts: Sweep/shovel up.

7. Handling and storage

Handling

Handle in accordance with good industrial hygiene and safety practice.
Protection against fire and explosion:
Take precautionary measures against static discharges. Avoid dust formation.
The product is capable of dust explosion.

Storage

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

8. Exposure controls and personal protection

Components with workplace control parameters

None

Personal protective equipment

Respiratory protection:

Breathing protection if breathable aerosols/dust are formed. Particle filter EN 143 Type P1, low efficiency, (solid particles of inert substances).

Hand protection:

Chemical resistant protective gloves (EN 374)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374):

e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other
Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:

Safety glasses with side-shields (frame goggles) (EN 166)

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Form:	dried debris/Granule
Colour:	light/dark brown
Odour:	specific odour
pH value:	approx. 5,0 - 7,0 (10% suspension in water)
Bulk density:	approx. 0.90 g/ml

10. Stability and reactivity

Conditions to avoid: heat

Hazardous reactions: none

11. Toxicological information

Acute toxicity

The product was not tested.

Can irritate the eyes (*)

Can have an irritant effect on the skin (*)

12. Ecological information

Elimination information: No data available.

Behaviour and environmental fate: No data available.

Ecotoxic effects: No data available.

Further ecological information

No negative ecological effects are expected according to the present state of knowledge.

13. Disposal considerations

Observe national and local legal requirements.

14. Transport information

Not classified as hazardous under transport regulations (ADR RID ADNR IMDG/GGVSee ICAO/IATA)

15. Regulatory information

Labeling according to EEC Directives

Not subject to labeling not subject to labeling

National legislation/regulations

Water hazard class: non water hazardous

16. Other information

The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.