



Material Safety Data Sheet

Probios® TC

Version: 7-CA/EN

Revision Date: 17-06-2014

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name: Probios® TC

Material No.: 660786

Application: Additive for animal feed.

Supplier: Chr. Hansen Inc.
9015 West Maple Street
53214-4298 Milwaukee - WI
Phone: +1 414 607-5700

Headquarters: Chr. Hansen A/S
Boge Allé 10-12
DK-2970 Horsholm
Tel. +45 45 74 74 74

Emergency telephone: +1 414 607-5700

2. HAZARDS IDENTIFICATION

HMIS Ratings: Health: 1 Flammability: 1 Physical Hazard: 0 Pers. Prot.: E

Physical and Chemical Hazards: The hazardous properties of the product are considered to be limited.

Human health: Dust may irritate the eyes and the respiratory system. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

Environment: The product is not expected to be hazardous to the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains: bacillus subtilis, bacillus licheniformis spores, calcium carbonate, anticaking agent.

This material is not a controlled product under Canadian WHMIS regulations.

The following substances shall be indicated according to legislation:

<u>Chemical name</u>	<u>CAS-No</u>	<u>%</u>	<u>Notes:</u>
calcium carbonate	471-34-1	60 - 100	-

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4. FIRST-AID MEASURES

Inhalation:	Dust inhalation: Move into fresh air and keep at rest. In case of persistent throat irritation or coughing: Seek medical attention and take along these instructions.
Skin contact:	Remove contaminated clothing immediately and wash skin with soap and water.
Eye contact:	Do not rub eye. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.
Ingestion:	Immediately rinse mouth and provide fresh air.
Most important symptoms and effects, both acute and delayed:	Dust may irritate the eyes and the respiratory system. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.
Indication of any immediate medical attention and special treatment needed:	Symptomatic treatment.

5. FIRE-FIGHTING MEASURES

Extinguishing media:	Use fire-extinguishing media appropriate for surrounding materials.
Specific hazards:	No specific precautions. The explosion limits and the flash point are stated in section 9.
Protective equipment for fire-fighters:	Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Avoid generation and spreading of dust. Avoid inhalation of dust and contact with skin and eyes. Follow precautions for safe handling described in this safety data sheet. For personal protection, see section 8.
Environmental precautions:	Avoid discharge into drains, water courses or onto the ground.
Spill Cleanup Methods:	Use a vacuum cleaner. If not possible, moisten dust with water before it is collected with shovel, broom or the like. For waste disposal, see section 13.

7. HANDLING AND STORAGE

Safe handling advice:	Avoid inhalation of dust and contact with skin and eyes. Observe good industrial hygiene practices.
Technical measures:	Keep the workplace clean. Use work methods which minimize dust production.
Technical precautions:	Local exhaust is recommended.
Technical measures for safe storage:	No special precautions.
Storage conditions:	Store in tightly closed original container at a temperature: Store at ambient temperature conditions. For detailed information consult the PI sheet. Store in a dry place. Protect against direct sunlight.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures:	Provide adequate ventilation. The risk of inhalation of dust must be minimized as much as possible.
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Chemical name
calcium carbonate

Exposure limits
AL-TWA: 10 mg/m³
BC-TWA: 3 mg/m³
BC-TWA: 10 mg/m³
BC-STEL: 20 mg/m³
QU-TWA: 10 mg/m³

Notes:

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Respiratory equipment:	Risk of inhalation of dust or aerosols use suitable respirator. Use respiratory equipment with particle filter: EU: FFP3 filter [e.g. 3M 8835 mask] US: P100 filter [e.g. 3M 8293 mask] The use of filtering respirators should be limited to max. 3 hours per day.
Hand protection:	Gloves are recommended for prolonged use.
Eye protection:	Use tight fitting goggles if dust is generated.
Skin protection:	No special precautions.
Hygiene measures:	Wash hands after contact.
Environmental Exposure Controls:	None.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Granulate
Color:	Light tan
Odor:	Faint odor
pH:	Not relevant
Melting point:	Not relevant
Boiling point:	Not relevant
Decomposition temperature:	Not relevant
Flash point:	Not relevant
Relative density:	Not available
Solubility:	Not water soluble

10. STABILITY AND REACTIVITY

Reactivity	None known.
Stability:	Stable under normal temperature conditions and recommended use.
Possibility of hazardous reactions	None known.
Conditions to avoid:	None known.
Incompatible Materials:	None known.
Hazardous decomposition products:	None known.

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11. TOXICOLOGICAL INFORMATION

- Inhalation: Dust may irritate respiratory system. Inhalation of high concentrations of dust or aerosols may cause toxic alveolitis. Symptoms like fever, coldshivering, coughing, difficulties in breathing, headache, muscle and joint pains etc. may appear 6 to 8 hours after exposure. The symptoms normally disappear completely over night without any treatment.
- Skin contact: Dust has an irritating effect on moist skin.
- Eye contact: May irritate.
- Ingestion: May irritate and cause malaise.
- Specific effects: Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.
Substances listed as carcinogens on NTP, OSHA or IACR are marked with a "+" or indicated as such in the table below.

Chemical name	NTP	OSHA	IARC
calcium carbonate	-	-	-

12. ECOLOGICAL INFORMATION

- Ecotoxicity: The product is not expected to be hazardous to the environment.
- Degradability: This product mainly consists of inorganic compounds which are not biodegradable.
- Bioaccumulative potential: Bioaccumulation: Is not expected to be bio-accumulable.
- Mobility: The product is insoluble in water and will spread on the water surface.
- Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

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14. TRANSPORT INFORMATION

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

UN number -

Air (ICAO/IATA):

Transport hazard class(es) -

Packing group -

Sea (IMDG):

Transport hazard class(es) -

Packing group -

EmS -

MFAG -

Land (TDG):

Transport hazard class(es) -

Packing group -

Environmental hazards

Marine pollutant (IMDG): -

Special precautions for user

None known.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant.

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15. REGULATORY INFORMATION

NFPA: Health: 1 Fire: 1 Reactivity: 0 Other: -

Workplace Hazardous Materials Information Systems (WHMIS): This product has been classified in accordance with the hazard criteria of the CPR (Controlled Product Regulations), and the MSDS contains all of the information required by the CPR.

WHMIS Class: Non-controlled.

Information on TSCA, DSL/NDSL, IDL and CEPA:

Chemical name	TSCA	DSL/NDSL	IDL	CEPA
calcium carbonate	+	+	-	-

EC - Labeling:

Not required.

National regulation: SOR/88-66. Controlled Products Regulations with amendments.

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16. OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The following sections contain revisions or new statements : 11.

Classification of the substance or mixture

The product is not classified.

Label elements

Signal Word None.

Contains: None.

Hazard statements None

Precautionary statements None

The information in this Safety Data Sheet has been obtained from current and reliable sources. However, the data is provided without warranty, express or implied, regarding its correctness or accuracy. It is the user's responsibility to determine safe conditions for use of this product and to assume liability for loss, injury, damage, or expense resulting from improper use of this product.