SAFETY DATA SHEETS

This SDS packet was issued with item:

078362312

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

078824529



Probios® Feed Granules

Version: 2-US/EN

Revision Date: 04-14-2014

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

1.1 Product identifier

Product name: Probios® Feed Granules

Material No: 73527

1.2 Relevant identified uses of the substance or mixture and uses advised against

Microbial feed additive for animals.

1.3 Details of the supplier of the safety data sheet

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

1.4 Emergency telephone number Health: 1-800-558-0802 (Monday through Friday, 7:30 AM to 5 PM CST) at other times contact

Chemtrec or the local poison control center. Transportation: 1-800-424-9300

www.chr-hansen.com Page: 1 (9)



Probios® Feed Granules

Version: 2-US/EN Revision Date: 04-14-2014

		TEICATION	

- 2.1 Classification of the substance or mixture The product is not classified.
- 2.2 Label elements

Signal Word None.

Contains: None.

Hazard statements None Precautionary statements

None

Supplemental hazard information None.

2.3 Other hazards

Physical and Chemical Hazards:

The hazardous properties of the product are considered to be limited.

www.chr-hansen.com Page: 2 (9)



Probios® Feed Granules

Version: 2-US/EN

Revision Date: 04-14-2014

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.

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	-	-	-	

Environment:

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

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

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

The following substances shall be indicated according to legislation:

Chemical Name	CAS-No	%	GHS	Notes:
calcium carbonate	471-34-1	60 - 100	-	

www.chr-hansen.com Page: 3 (9)



Probios® Feed Granules

Version: 2-US/EN

Revision Date: 04-14-2014

4. FIRST-AID MEASURES

4.1 Description of 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 drink plenty of water.

4.2 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.

4.3 Indication of any immediate medical attention and special treatment needed Symptomatic treatment.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Use fire-extinguishing media appropriate for surrounding materials.

5.2 Special hazards arising from the substance or mixture

No specific precautions.

The explosion limits and the flash point are stated in section 9.

5.3 Advice for firefighters

Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

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.

6.2 Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3 Methods and material for containment and cleaning up

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.

www.chr-hansen.com Page: 4 (9)



Probios® Feed Granules

Version: 2-US/EN

Revision Date: 04-14-2014

6.4 Reference to other sections

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

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.

7.2 Conditions for safe storage, including any incompatibilities

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.

Technical measures for safe storage: No special precautions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure limits are listed below. No data - no exposure limits noted for ingredient(s).

Chemical Name Exposure limits (OSHA) Notes

calcium carbonate TWA: 5 mg/m₃

TWA: 15 mg/m₃

8.2 Exposure controls

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

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.

www.chr-hansen.com Page: 5 (9)



Probios® Feed Granules

Version: 2-US/EN

Revision Date: 04-14-2014

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Granulate Appearance: Color: Grey to light tan Odor: Faint odor Not relevant pH: Not relevant Melting point: Boiling point: Not relevant Decomposition temperature: Not relevant Flash point: Not relevant Relative Density: Not available Not water soluble Solubility:

9.2 Other information

No information available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

None known.

10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

10.3 Possibility of hazardous reactions

None known.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

None known.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

www.chr-hansen.com Page: 6 (9)



Probios® Feed Granules

Version: 2-US/EN

Revision Date: 04-14-2014

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

12.1 Ecotoxicity

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

12.2 Persistence and degradability

This product mainly consists of inorganic compounds which are not biodegradable.

12.3 Bioaccumulative potential

Bioaccumulation: Is not expected to be bio-accumulable.

12.4 Mobility in soil

The product is insoluble in water and will spread on the water surface.

12.6 Other adverse effects

None known.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

www.chr-hansen.com Page: 7 (9)



Probios® Feed Granules

Version: 2-US/EN

Revision Date: 04-14-2014

14. TRANSPORT INFORMATION

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

14.1 UN number -

Air (ICAO/IATA):

14.3 Transport hazard class(es)14.4 Packing group

Sea (IMDG):

14.3 Transport hazard class(es)14.4 Packing groupEmSMFAG

Land (DOT):

14.3 Transport hazard class(es)14.4 Packing group-

- 14.5 Environmental hazards

 Marine pollutant (IMDG): -
- 14.6 Special precautions for user None known.
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not relevant.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

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

Information on TSCA, CERCLA, SARA 313 and 302, CAA:

Chemical Name	TSCA	CERCLA	SARA 313	SARA 302	CAA
calcium carbonate	+	-	-	-	-

Specific Provisions: State and local regulations may apply.

www.chr-hansen.com Page: 8 (9)



Probios® Feed Granules

Version: 2-US/EN

Revision Date: 04-14-2014

National regulation: OSHA Regulations (Standards - 29 CFR). Hazard Communication - 1910.1200.

16. OTHER INFORMATION

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

Wording of Hazard Statements

-

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.

www.chr-hansen.com Page: 9 (9)