



Safety Data Sheet

B. subtilis DSM32324

Version: 2 US / EN

Revision Date: 09-26-2016

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

1.1 Product identifier

Product name: B. subtilis DSM32324
Material No: 715727

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

Application: 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

Emergency telephone: 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 (Chemtrec): 1-800-424-9300 or +1-703-527-3887 (outside the U.S.)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

The product is not classified, but must be labeled with the below phrases.

2.2 Label elements

Signal Word None.

Hazard statements None

Precautionary statements None

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Supplemental hazard information

Warning: In high concentrations, fine particles may form explosive dust/air mixtures.

2.3 Other hazards

Physical and Chemical Hazards:

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

Large quantities: In high concentrations, fine particles may form explosive dust/air mixtures.

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.

The product does not contain any carcinogenic substances in amounts to be declared.

Environment:

The harmful effects of the product in the environment are considered to be limited.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

The product contains: bacteria.

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

Does not contain substances that must be indicated according to current regulations.

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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 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

Potential dust explosion hazard. Fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard.

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.

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. Dust Deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air.

6.4 Reference to other sections

For personal protection, see section 8.

For waste disposal, see section 13.

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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. Avoid generation, spreading and accumulation of dust.

Large quantities: Ensure appropriate exhaust and ventilation at machinery and at places where dust can be generated. Take precautionary measures against static discharges when there is a risk of dust explosion.

Technical precautions: Mechanical ventilation may be required.

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.

Technical measures for safe storage: Risk of dust explosion: Comply with the regulations on protection against dust explosions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

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

Occupational exposure limits: Total dust: 15 mg/m³. Respirable dust: 5 mg/m³.

8.2 Exposure controls

Engineering measures: Provide adequate ventilation. Use work methods which minimize dust production.

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

9.1 Information on basic physical and chemical properties

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Appearance:	Powder
Color:	Brownish
Odor:	Odorless
pH:	Not relevant
Melting point:	Not relevant
Boiling point:	Not relevant
Decomposition temperature:	Not relevant
Flash point:	Not relevant
Relative Density:	Not available
Solubility:	Water soluble suspension

- 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
Humidity and direct sunlight.
- 10.5 Incompatible materials
None known.
- 10.6 Hazardous decomposition products
None known.

11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects

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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.

May contain very small amounts of a sensitizing substance which may cause sensitization by inhalation in sensitive individuals.

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.

The product does not contain any carcinogenic substances in amounts to be declared.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

The harmful effects of the product in the environment are considered to be limited.

12.2 Persistence and degradability

The product is expected to be biodegradable.

12.3 Bioaccumulative potential

Bioaccumulation: Is not expected to be bio-accumulable.

12.4 Mobility in soil

The product is water soluble and may spread in water systems.

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.

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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 group -

EmS -

MFAG -

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: 3 Reactivity: 0 Other: -

All chemicals are listed on TSCA.

Specific Provisions: State and local regulations may apply.

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

NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

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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.

Wording of Hazard Statements

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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.