

SAFETY DATA SHEET

F4009 - RTI477 Spore Product

Version: 2 - EU / EN

Revision Date: 16-09-2016

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

1.1 Product identifier

Product name: F4009 - RTI477 Spore Product
Material No.: 714380

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

Application: biopesticide

1.3 Details of the supplier of the safety data sheet

Supplier: Headquarters
Chr. Hansen A/S
Bøge Allé 10-12
DK-2970 Hørsholm
Tel. +45 45 74 74 74

SDS@chr-hansen.com

1.4 Emergency telephone number

Emergency telephone: +45 45 74 74 74

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

The product is not classified.

2.2 Label elements

Signal Word None.

Hazard statements None.

Precautionary statements None.

Supplemental hazard information

None

2.3 Other hazards

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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.

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

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

The product contains: bacteria.

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

SECTION 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.

SECTION 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.

5.3 Advice for firefighters

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

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- 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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SECTION 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.
- 7.3 Specific end use(s)
No information available.
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SECTION 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: Dust inhalable: 10 mg/m³. Dust respirable: 4 mg/m³.

8.2 Exposure controls

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

Personal protection: Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Powder
Color:	Brownish
Odour:	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:	Water soluble suspension

9.2 Other information

No information available.

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

None known.

10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

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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.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

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.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

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 bioaccumulable.

12.4 Mobility in soil

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

12.5 Results of PBT and vPvB assessment

No information required.

12.6 Other adverse effects

None known.

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SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

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

EWC-code: 02 01 99

SECTION 14. TRANSPORT INFORMATION

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

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 (RID/ADR):

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.

SECTION 15. REGULATORY INFORMATION

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

National regulation:

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

Regulation (EC) No 1907/2006 of the European parliament and of the council of 18 December 2006 with amendments. Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments.

15.2 Chemical safety assessment:

Not required.

SECTION 16. OTHER INFORMATION

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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.