



Safety Data Sheet

SiloSolve® FC

Version: 4 US / EN

Revision Date: 02-15-2017

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

1.1 Product identifier

Product name: SiloSolve® FC
Material No: 712022

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

Application: Silage inoculant.

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

Safety Data Sheet

SiloSolve® FC

Version: 4 US / EN

Revision Date: 02-15-2017

Supplemental hazard information

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

2.3 Other hazards

Physical and Chemical Hazards:

In high concentrations: Fine particles may form explosive vapor/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.

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
Zeolites	-	-	3

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).

The following substances shall be indicated according to legislation:

<u>Chemical Name</u>	<u>CAS-No</u>	<u>%</u>	<u>GHS</u>	<u>Notes:</u>
Zeolites	1318-02-1	5 - 10	Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335	-

Safety Data Sheet

SiloSolve® FC

Version: 4 US / EN

Revision Date: 02-15-2017

4. FIRST-AID MEASURES

4.1 Description of first aid measures

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 clothes and rinse skin thoroughly with 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: Rinse mouth thoroughly. If uncomfortable: Get medical attention.

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. Avoid contact with 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

Flush away small spillages with plenty of water. 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. Large quantities: Collect spillage with shovel, broom or the like. Flush contaminated area with plenty of water.

6.4 Reference to other sections

For personal protection, see section 8.

For waste disposal, see section 13.

Safety Data Sheet

SiloSolve® FC

Version: 4 US / EN

Revision Date: 02-15-2017

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Safe handling advice: Avoid inhalation of dust. Avoid contact with eyes. Observe good industrial hygiene practices.

Technical measures: Keep the workplace clean. Avoid generation, spreading and accumulation of dust. Take precautionary measures against static discharges when there is a risk of dust explosion. Ensure appropriate exhaust and ventilation at machinery and at places where dust can be generated.

Technical precautions: Mechanical ventilation may be required.

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed original container. Store at ambient temperature conditions. For detailed information consult the PI sheet. Protect against direct sunlight. Store in a dry place.

Technical measures for safe storage: 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: In case of inadequate ventilation: Use respiratory equipment with particle filter, type P1. 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

Safety Data Sheet

SiloSolve® FC

Version: 4 US / EN

Revision Date: 02-15-2017

Appearance:	Powder
Color:	Green
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:	Water soluble

- 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

Safety Data Sheet

SiloSolve® FC

Version: 4 US / EN

Revision Date: 02-15-2017

Inhalation: Dust may irritate throat and respiratory system and cause coughing. 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: Dust in the eyes will cause irritation.

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 IARC are marked with a "+" or indicated as such in the table below.

Chemical Name	NTP	OSHA	IARC
Zeolites	-	-	3

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.

Safety Data Sheet

SiloSolve® FC

Version: 4 US / EN

Revision Date: 02-15-2017

14. TRANSPORT INFORMATION

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

14.1 UN number -

14.2 UN proper shipping name

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: -

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

Chemical Name	TSCA	CERCLA	SARA 313	SARA 302	CAA
Zeolites	-	-	-	-	-

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.

Safety Data Sheet

SiloSolve® FC

Version: 4 US / EN

Revision Date: 02-15-2017

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 : 3, 16.

Wording of Hazard Statements

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

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.