

SAFETY DATA SHEET



First you add knowledge...

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Avizyme® 1310
Material Number 1310
Chemical nature Product Code: A03232
Formula Enzyme Preparation.
Synonyms Not applicable.
Recommended Use Animal feed
Company/undertaking identification: Danisco Animal Nutrition
PO Box 777
Marlborough
Wiltshire SN81XN
United Kingdom
Tel: +441672 517777
Fax: +441672 517778
E-mail Address SDS.Genencor@Danisco.com
Emergency telephone: +1 (319) 368-7657

2. HAZARDS IDENTIFICATION

Potential Health Effects: Inhalation of enzyme mist/dust may cause allergic respiratory reactions, including asthma, in susceptible individuals on repeated exposure.

Eyes May cause slight irritation.
Skin May cause slight irritation.
Inhalation: May cause slight irritation.
Ingestion Not expected to be toxic by ingestion.

Aggravated Medical Conditions Atopy. Asthma.

Environmental Hazard See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Description Enzyme Preparation.

Chemical Name	CAS-No	%	OSHA	ACGIH
Sorbitol	50-70-4	Proprietary	Not Listed	Not Listed
Sodium Chloride	7647-14-5	Proprietary	Not Listed	Not Listed
Water	7732-18-5	Proprietary	Not Listed	Not Listed
Xylanase	9025-57-4	<1	Not Listed	Not Listed

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4. FIRST AID MEASURES

Eye Contact	Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.
Skin Contact	Flush skin with large amounts of water. If irritation develops and persists, get medical attention.
Inhalation	Remove person to fresh air. If signs/symptoms continue, get medical attention.
Ingestion	Rinse mouth with water. Get medical attention immediately if symptoms occur.
Notes to Physician	May cause allergic respiratory reaction.

5. FIRE-FIGHTING MEASURES

Flammable Properties	Not flammable.
Suitable Extinguishing Media	Standard procedure for chemical fires. Foam. Water.
Protective Equipment and Precautions for Firefighters	As in any fire, wear self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use only with adequate ventilation/personal protection. Avoid breathing dust or spray mist. Avoid formation of dust and aerosols. For personal protection see section 8.
Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Cleaning Up	Contain and remove spilled product by mechanical means or with a vacuum cleaner equipped with a high efficiency filter. Avoid formation of aerosol.

Avizyme® 1310**Material Number 1310****7. HANDLING AND STORAGE**

Handling	Avoid breathing vapors or mists. Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice. For personal protection see section 8.
Storage	Keep container tightly closed in a dry and well-ventilated place. Additional information available from product literature.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines Contains no substances with occupational exposure limit values.

Occupational Exposure Controls

Engineering Measures Ventilation systems.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

Personal Protective Equipment

Eye/Face Protection Safety glasses with side-shields.
Skin and Body Protection Impervious gloves.
Respiratory Protection Use NIOSH approved respiratory protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Yellow to brown	Odor	Typical odor of fermented product
Physical State	Liquid	pH	4.5-5.0
Flash Point	>100°C / >210°F	Method	PMCC.
Autoignition Temperature	Not applicable.	Decomposition Temperature	Not determined
Boiling Point/Range	Not determined	Melting Point/Range	Not determined
Freezing Point	Not determined		
Flammability Limits in Air	Not applicable.	Explosion Limits	Not determined
Specific Gravity	1.13	Water solubility	Soluble
Evaporation Rate	Not determined	Vapor Pressure	Not determined
Vapor Density	Not determined		

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10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Incompatible Products	None known.
Conditions to Avoid	None known.
Hazardous Decomposition Products	None known.
Hazardous Polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION**Product Information****Acute Toxicity**

Oral	No data available
Dermal	No data available
Inhalation	No data available

Irritation

Eye irritation	No data available
Skin irritation	No data available
Respiratory irritation	No data available

Sensitization

Inhalation of enzyme mist/dust may cause allergic respiratory reactions, including asthma, in susceptible individuals on repeated exposure.

Systemic toxicity

There is no data available for this product

Mutagenic effects

There is no data available for this product

Reproductive effects

This product does not contain any known or suspected reproductive hazards.

Carcinogenicity

Not classified as a carcinogen by IARC, OSHA, or NTP.

Component Information

Component information below is as complete as possible. Any fields not shown indicate no data is presently available.

Sorbitol

Oral LD50/oral/rat 15900 mg/kg

Mutagenic effects

Negative in Ames assay up to 50mg/plate.

Sodium Chloride

Oral LD50/oral/rat 3000 mg/kg

Eye irritation Moderate eye irritation.

Mutagenic effects

Negative in the Ames test.

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11. TOXICOLOGICAL INFORMATION

Xylanase

Oral	No data available
Dermal	No data available
Inhalation	LC50/inhalation/4h/rat > 5.1 mg/l
Eye irritation	No data available
Skin irritation	No data available
Sensitization	May cause sensitization by inhalation
Systemic toxicity	In a 91-day feeding study in rats, the NOAEL can be established at > 37,500 U/kg/day.
Mutagenic effects	Negative in Ames assay up to 5000 ug/plate. Negative in chromosome aberration studies using Chinese hamster ovary cells.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects	Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.
Mobility	Soluble.
Persistence and Degradability	Enzymes are considered readily biodegradable.
Bioaccumulation/Accumulation	Bioaccumulation is unlikely.
Component Information	

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia	Biodegradation
Sodium Chloride	EC50/72h/algae 4967 mg/l	LC50/96h/bluegill sunfish 9675 mg/l	LC50/48h/daphnia = 1000 mg/l	No data

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods	In accordance with local and national regulations.
Packaging	If empty container retains product residues, all label precautions must be observed. Store away from ignition sources. Transport with all closures in place. Return for reuse or dispose according to national or local regulations.

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14. TRANSPORT INFORMATION

Harmonized Tariff Code: 3507.90.7000 (for enzymes).

DEPT. OF TRANSPORTATION UN OR NA NUMBER Not classified as dangerous in the meaning of transport regulations.

Hazard Class	Not hazardous
Packing Group	Not applicable
Reportable Quantity (RQ)	Not applicable

15. REGULATORY INFORMATION

HAZARD RATING SYSTEMS:

HMIS (SCALE 0-4, WHERE 4=SEVERE HAZARD): Health: 2 Flammability: 1 Reactivity: 0

U.S. Federal Regulations

Chemical Name	SARA 313 - Threshold Values %	CERCLA/SARA - Section 302 Extremely Haz
Sorbitol	Not listed	Not listed
Sodium Chloride	Not listed	Not listed
Water	Not listed	Not listed
Xylanase	Not listed	Not listed

U.S. State Regulations

California Proposition 65 This product does not contain any Proposition 65 chemicals.

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16. OTHER INFORMATION

Prepared By M. Laura
SDS Coordinator

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Changes since last date of revision: None.

Disclaimer

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END OF SDS