

Revision Date 31/08/2017
 Revision Number 3

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name Aextra® XB 201 L
Product Code A30211
Pure substance/mixture Mixture

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

Recommended Use Animal feed

1.3. Details of the supplier of the safety data sheet

Supplier

Danisco Animal Nutrition
 PO Box 777
 Marlborough
 Wiltshire SN81XN
 United Kingdom
 Tel: +441672 517777.

E-mail address

SDS.Genencor@DuPont.com

1.4. Emergency telephone number

+32 (0) 50 44 91 73

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Respiratory sensitisation	Category 1 - (H334)
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2.2. Label elements



Signal word

DANGER!

Hazard statements

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary Statements

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

P284 - In case of inadequate ventilation wear respiratory protection

P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

2.3. Other hazards

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None known.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Description Preparation.

Chemical Name	CAS No.	Weight-%	EINECS	IUB-ECCode	REACH Reg. No.	CLP Classification
Beta Glucanase	62213-14-3	5-10	263-462-4	3.2.1.6	No data available	Resp. Sens. 1 (H334)
Endo-1,4-beta-xylanase	9025-57-4	<1	232-800-2	3.2.1.8	No data available	Resp. Sens. 1 (H334)

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Skin Contact:

IF ON SKIN: Wash with plenty of water and soap. If skin irritation occurs: Get medical advice/ attention.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

Rinse mouth thoroughly with water. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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

Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Extinguish with alcohol-resistant foam, fire extinguishing powder or water spray.

5.2. Special hazards arising from the substance or mixture

None known

5.3. Advice for firefighters

Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide adequate protection.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid generation of dust and aerosols. Avoid breathing dust or spray mist.

Advice for Emergency Responders

Use personal protection recommended in Section 8.

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6.2. Environmental precautions

Contain spill.

6.3. Methods and material for containment and cleaning up

Methods for Containment Cover with absorbent or contain. Collect and dispose.

Methods for Cleaning Up

Use appropriate personal protective equipment (PPE). Contain and/or absorb spill with inert material, then place in suitable container. Prevent runoff from entering drains, sewers or waterways.

6.4. Reference to other sections

Use personal protection recommended in Section 8.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid generation of dust and aerosols. Avoid contact with eyes, skin and clothing. Avoid breathing dust or spray mist. Ensure adequate ventilation.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with eyes, skin and clothing. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Protect from light. Keep/store only in original container.

7.3. Specific end use(s)

See section 1 for more information.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits

Based on data available for ingredients.

Chemical Name	EU	UK WEL	France	Spain	German MAK:
Beta Glucanase	None known	None known	None known	None known	None known
Endo-1,4-beta-xylanase	None known	None known	None known	None known	None known

Chemical Name	Italy	Portugal	The Netherlands	Finland	Denmark
Beta Glucanase	None known	None known	None known	None known	None known
Endo-1,4-beta-xylanase	None known	None known	None known	None known	None known

Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Beta Glucanase	None known	None known	None known	None known	None known
Endo-1,4-beta-xylanase	None known	None known	None known	None known	None known

DNEL/DMEL - Workers

Derived minimal effect level (DMEL) of 60 ng/m³ for workers and 15 ng/m³ for consumers has been derived for enzyme proteins.

DNEL/DMEL - General population

Derived minimal effect level (DMEL) of 60 ng/m³ for workers and 15 ng/m³ for consumers has been derived for enzyme proteins

Predicted No Effect Concentration (PNEC)

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No data available

8.2. Exposure controls Engineering Measures

Transfer via enclosed lines. Formulate in enclosed or ventilated mixing vessels. Carefully handle the substance to minimise releases. Avoid generation of dust and aerosols.

Personal protective equipment Eye/Face Protection Hand Protection

Wear safety glasses with side shields (or goggles).
Use any protective gloves that meet the minimum requirements of EN420 when handling solid product. Gloves meeting the additional requirements of EN374-2 should be worn when handling liquid products. Practical experience has shown that gloves of nitrile rubber, butyl rubber, latex, and polyvinyl chloride (PVC) offer sufficient protection. There are no additional material, thickness and breakthrough time requirements. Chemical resistant gloves, as defined by EN374-3 are not required.

Skin and Body Protection Respiratory Protection

Wear protective gloves and protective clothing.
Ensure adequate ventilation. If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. Respirators with a particle filter (EN143) or P3 filters are recommended.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical State	Liquid
Colour	Light brown
Odour	Typical odour of fermented product
Odour Threshold	No data available
pH	5.0-5.5
Melting point / freezing point	No data available
Boiling point / boiling range	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper Flammability Limit	No data available
Upper explosive limits	No data available
Lower Flammability Limit	No data available
Lower explosive limits	No data available
Vapour Pressure	No data available
Vapour Density	No data available
Relative density	No data available
Specific Gravity	1.20
Water Solubility	Soluble
Partition Coefficient (n-octanol/water)	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Dynamic viscosity	No data available
Oxidising Properties	No data available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity
Not expected.

10.2. Chemical stability
Stable under normal conditions.

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10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

None known.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Product Information

Acute Toxicity

Inhalation

No data available.

Eye Contact

If applicable: Classification is shown in section 2 of this SDS

Skin Contact

If applicable: Classification is shown in section 2 of this SDS

Ingestion

Toxicity: Not expected

Sensitisation

May cause sensitisation in susceptible persons. Repeated inhalation of enzyme containing aerosol (dust or mist) can cause a respiratory allergy in some individuals.

Germ cell mutagenicity

No data available.

Carcinogenic effects

No data available.

Reproductive effects

No data available.

STOT - single exposure

No data available.

STOT - repeated exposure

No data available.

Aspiration hazard

Not expected.

Component Information

Classification based on data available for ingredients.

Endo-1,4-beta-xylanase

Inhalation

LC50/inhalation/4h/rat > 5.1 mg/l

Eye irritation

Non-irritant

Skin irritation

Non-irritant

Sensitisation

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

Mutagenic effects

Not mutagenic in bacterial assays in the presence and absence of metabolic activation up to 5,000 µg/plate. Negative in chromosomal aberration using human lymphocytes.

Systemic Toxicity

In a 90-day study in rats, there were no indications of toxicity or other changes attributed to treatment. A NOAEL can be established at 1140 mg/kg/d

Beta Glucanase

Oral

LD50/oral/rat >2000 mg/kg

Inhalation

LC50/inhalation/4h/rat > 2.42 mg/l

Skin irritation

Non-irritant

Sensitisation

May cause sensitisation in susceptible persons. Repeated inhalation of enzyme containing aerosol (dust or mist) can cause a respiratory allergy in some individuals.

Mutagenic effects

Not mutagenic in bacterial assays in the presence and absence of metabolic activation up to 5,000 µg/plate. Negative in chromosomal aberration using human lymphocytes.

Systemic Toxicity

In a 90-day study in rats, there were no indications of toxicity or other changes attributed to treatment. A NOAEL can be established at 2400 mg/kg/d

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The following values are calculated based on chapter 3.1 of the GHS document (ATE)

ATEmix (oral) 3,261.00 mg/kg

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Classification based on data available for ingredients.

Contains 0% of components with unknown hazards to the aquatic environment

12.2. Persistence and degradability

Based on data available for ingredients.

12.3. Bioaccumulative potential

No bioaccumulation potential.

12.4. Mobility in soil

Soluble in water.

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

None known.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Disposal Methods Dispose of wastes in an approved waste disposal facility. Dispose of contents/containers in accordance with local regulations.

Contaminated Packaging Dispose of empty containers and wastes safely. Dispose of waste product or used containers according to local regulations.

Section 14: TRANSPORT INFORMATION

IMDG/IMO

14.1 UN-No.	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3. Hazard Class	Not regulated
14.4. Packing Group	Not regulated
14.5. Marine Pollutant	None
14.6. Special Provisions	None
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	None

RID

14.1 UN-No.	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3. Hazard Class	Not regulated

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14.4. Packing Group	Not regulated
14.5. Environmental hazard	None
14.6. Special Provisions	None

ADR:

14.1 UN-No.	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3. Hazard Class	Not regulated
14.4. Packing Group	Not regulated
14.5. Environmental hazard	None
14.6. Special Provisions	None

ICAO

14.1 UN-No.	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3. Hazard Class	Not regulated
14.4. Packing Group	Not regulated
14.5. Environmental hazard	None
14.6. Special Provisions	None

IATA

14.1 UN-No.	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3. Hazard Class	Not regulated
14.4. Packing Group	Not regulated
14.5. Environmental hazard	None
14.6. Special Provisions	None

Section 15: REGULATORY INFORMATION

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

Chemical Name	Water hazard class (WGK)
Beta Glucanase	1
Endo-1,4-beta-xylanase	1

Chemical Name	TA Luft (German Air Pollution Control Regulation)	Occupational Illnesses (R-463-3, France)
Endo 1,4 beta-glucanase		RG 63
Sodium Chloride		RG 78
Endo-1,4-beta-xylanase		RG63

15.2. Chemical safety assessment

No information available.

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under section 3

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

Prepared By SDS.Genencor@DuPont.com

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SDS sections updated 11, 16.

Recommendations on Use Reference sources:: ATEX Directive 1999/92/EC, Workplace Requirements for Explosive Atmospheres, ATEX Directive 94/9/EC, Equipment for use in Explosive Atmospheres.

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH), Regulation (EC) No 1272/2008.

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet