

Revision Date 28/06/2018  
 Revision Number 4

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

### 1.1. Product identifier

Product Name Aextra® XB 201 TPT  
 Product Code A30212  
 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

Contains: Xylanase Beta-glucanase



#### 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 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor

### 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)
Talc	14807-96-6	5-10	238-877-9	-	No data available	Not classified
Starch	9005-25-8	1-5	232-679-6	-	No data available	Not classified
Sucrose	57-50-1	1-5	200-334-9	-	No data available	Not classified
Xylanase	9025-57-4	<1	232-800-2	3.2.1.8	01-2120747946-38	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

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

### Advice for Emergency Responders

Use personal protection recommended in Section 8.

### 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
Talc	None known	3 mg/m <sup>3</sup> STEL (calculated, respirable dust) 1 mg/m <sup>3</sup> respirable dust	None known	TWA: 2 mg/m <sup>3</sup>	Category 3B
Starch	None known	30 mg/m <sup>3</sup> STEL (calculated, total inhalable); 12 mg/m <sup>3</sup> STEL (calculated, respirable) 10 mg/m <sup>3</sup> total inhalable 4 mg/m <sup>3</sup> respirable	None known	TWA: 10 mg/m <sup>3</sup>	None known
Sucrose	None known	20 mg/m <sup>3</sup> STEL 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	None known
Xylanase	None known	None known	None known	None known	None known

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Chemical Name	Italy	Portugal	The Netherlands	Finland	Denmark
Beta-glucanase	None known	None known	None known	None known	None known
Talc	None known	TWA: 2 mg/m <sup>3</sup>	TWA: 0.25 mg/m <sup>3</sup>	TWA: 0.5 fiber/cm <sup>3</sup> STEL: 2 ppm STEL: 1 ppm	TWA: 0.3 fiber/cm <sup>3</sup>
Starch	None known	TWA: 10 mg/m <sup>3</sup>	None known	None known	None known
Sucrose	None known	TWA: 10 mg/m <sup>3</sup>	None known	None known	None known
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
Talc	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 4.0 mg/m <sup>3</sup> TWA: 1.0 mg/m <sup>3</sup>	TWA: 6 mg/m <sup>3</sup> TWA: 2 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 0.8 mg/m <sup>3</sup> STEL: 30 mg/m <sup>3</sup> STEL: 2.4 mg/m <sup>3</sup>
Starch	None known	TWA: 3 mg/m <sup>3</sup>	None known	None known	TWA: 10 mg/m <sup>3</sup> TWA: 4 mg/m <sup>3</sup> STEL: 30 mg/m <sup>3</sup> STEL: 12 mg/m <sup>3</sup>
Sucrose	None known	None known	None known	None known	TWA: 10 mg/m <sup>3</sup> STEL: 20 mg/m <sup>3</sup>
Xylanase	None known	None known	None known	None known	None known

### DNEL/DMEL - Workers

Derived minimal effect level (DMEL) of 60 ng/m<sup>3</sup> for workers and 15 ng/m<sup>3</sup> for consumers has been derived for enzyme proteins.

### DNEL/DMEL - General population

Derived minimal effect level (DMEL) of 60 ng/m<sup>3</sup> for workers and 15 ng/m<sup>3</sup> for consumers has been derived for enzyme proteins

### Predicted No Effect Concentration (PNEC)

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

Wear safety glasses with side shields (or goggles).

##### Hand Protection

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

Wear protective gloves and protective clothing.

##### Respiratory Protection

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

Granules

#### Colour

Brown

#### Odour

Typical odor of fermented product

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<b>Odour Threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting point / freezing point</b>	No data available
<b>Boiling point / boiling range</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Upper Flammability Limit</b>	No data available
<b>Upper explosive limits</b>	No data available
<b>Lower Flammability Limit</b>	No data available
<b>Lower explosive limits</b>	No data available
<b>Vapour Pressure</b>	No data available
<b>Vapour Density</b>	No data available
<b>Bulk Density</b>	No data available
<b>Specific Gravity</b>	No data available
<b>Water Solubility</b>	Soluble
<b>Partition Coefficient (n-octanol/water)</b>	No data available
<b>Autoignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Dynamic viscosity</b>	No data available
<b>Oxidising Properties</b>	No data available

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Not expected.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

None under normal processing.

### 10.4. Conditions to avoid

Avoid dust formation.

### 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

<b>Inhalation</b>	No data available.
<b>Eye Contact</b>	If applicable: Classification is shown in section 2 of this SDS
<b>Skin Contact</b>	If applicable: Classification is shown in section 2 of this SDS
<b>Ingestion</b>	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.

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<b>Carcinogenic effects</b>	No data available.
<b>Reproductive effects</b>	No data available.
<b>STOT - single exposure</b>	No data available.
<b>STOT - repeated exposure</b>	No data available.
<b>Aspiration hazard</b>	Not expected.
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<b>Component Information</b>	Classification based on data available for ingredients.
<i>Beta-glucanase</i>	
<b>Oral</b>	LD50/oral/rat >2000 mg/kg
<b>Inhalation</b>	LC50/inhalation/4h/rat > 2.42 mg/l
<b>Skin irritation</b>	Non-irritant
<b>Sensitisation</b>	May cause sensitisation in susceptible persons. Repeated inhalation of enzyme containing aerosol (dust or mist) can cause a respiratory allergy in some individuals.
<b>Mutagenic effects</b>	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
<b>Systemic Toxicity</b>	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
<i>Talc</i>	
<b>Eye irritation</b>	May cause slight irritation
<b>Skin irritation</b>	May cause slight irritation
<b>Respiratory irritation</b>	May cause slight irritation
<b>Sensitisation</b>	Not a skin sensitiser.
<b>Reproductive effects</b>	No developmental toxicity in rats
<b>Mutagenic effects</b>	Negative in the chromosomal aberration assay Negative in dominant lethal assay in rat up to 5000 mg/kg . Negative in DNA Damage and Repair Assay Negative in Ames assay with and without metabolic activation.
<i>Starch</i>	
<b>Eye irritation</b>	Mild eye irritation
<b>Skin irritation</b>	Mild skin irritation
<b>Respiratory irritation</b>	May cause slight irritation
<i>Sucrose</i>	
<b>Oral</b>	LD50/oral/rat 29700 mg/kg
<b>Eye irritation</b>	May cause slight irritation
<b>Skin irritation</b>	May cause skin irritation
<b>Respiratory irritation</b>	May cause respiratory tract irritation
<i>Xylanase</i>	
<b>Inhalation</b>	LC50/inhalation/4h/rat > 5.1 mg/l
<b>Eye irritation</b>	Non-irritant
<b>Skin irritation</b>	Non-irritant
<b>Sensitisation</b>	May cause sensitisation in susceptible persons. Repeated inhalation of enzyme containing aerosol (dust or mist) can cause a respiratory allergy in some individuals.
<b>Mutagenic effects</b>	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
<b>Systemic Toxicity</b>	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

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

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Classification based on data available for ingredients.

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

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to daphnia
Beta-glucanase 62213-14-3	No data	No data	No data
Talc 14807-96-6	No data	Brachydanio rerio LC50 = 100000 mg/L.	No data
Starch 9005-25-8	No data	No data	No data
Sucrose 57-50-1	No data	No data	No data
Xylanase 9025-57-4	No data	No data	No data

### 12.2. Persistence and degradability

Based on data available for ingredients.

Chemical Name	Biodegradation
Beta-glucanase 62213-14-3	No data
Talc 14807-96-6	No data
Starch 9005-25-8	No data
Sucrose 57-50-1	No data
Xylanase 9025-57-4	No data

### 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

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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
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
Starch	1
Xylanase	1

Chemical Name	TA Luft (German Air Pollution Control Regulation)	Occupational Illnesses (R-463-3, France)
Beta-glucanase		RG 63



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Talc		RG 25
Xylanase		RG63

### 15.2. Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

## 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

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SDS sections updated 11, 16.

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