

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identification**

Product Name Axta® XB 201 TPT
Material no A30212
Synonyms Not applicable
Formula Not applicable
Pure substance/mixture Preparation

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**Company/undertaking identification**

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

E-mail address SDS-Genencor@Danisco.com

1.4 Emergency Telephone Number

Emergency Telephone +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

2.2 Label Elements

Contains: Xylanase, Endo 1,4 beta-glucanase.



Signal Word Danger

Hazard Statements

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

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Precautionary Statements - EU (§28, 1272/2008)

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

P285 - 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 centre or doctor/ physician.

2.3 Other information

Properties Affecting Health Inhalation of Enzymes dust and/or aerosols: May cause sensitisation of susceptible persons. May cause allergic respiratory reaction.

Environmental effects Soluble in water

PBT and vPvB assessment The substance does not require registration according to REACH.

Physical and chemical hazards None under normal use conditions.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Description Enzyme Preparation.

Chemical name	%	CAS-No	EINECS-No	IUB Code	REACH No	CLP Classification
Sodium Sulfate	70-75	7757-82-6	231-820-9	-	-	Not classified
Endo 1,4 beta-glucanase	5-10	62213-14-3	263-462-4	3.2.1.6	-	Resp. Sens. 1 (H334)
Talc	2-7	14807-96-6	238-877-9	-	-	Not classified
Starch	1-5	9005-25-8	232-679-6	-	-	Not classified
Sucrose	1-5	57-50-1	200-334-9	-	-	Not classified
Xylanase	1-5	9025-57-4	232-800-2	3.2.1.8	-	Resp. Sens. 1 (H334)

Full text of H - Phrases: see section 16.

Section 4: FIRST AID MEASURES

4.1 Description of first aid measures

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

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

Ingestion Rinse mouth thoroughly with water. If swallowed Call a POISON CENTRE or doctor/physician if you feel unwell.

Inhalation IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.

4.2 Most important symptoms and effects, both acute and delayed

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May cause allergy or asthma symptoms or breathing difficulties if inhaled

4.3 Indication of any immediate medical attention and special treatment needed

May cause allergic respiratory reaction

Section 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

May cause sensitization by inhalation.

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

Use personal protection recommended in Section 8. Avoid generation of dust / aerosols. Avoid breathing dust or spray mist.

6.2 Environmental Precautions

Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up

Use personal protection recommended in Section 8. Other protection measures such as segregation of activity, minimisation of personnel, respiratory protection, impervious suits and face shields should also be considered for high dispersion activities which are likely to lead to substantial aerosol or vapour release, e.g. spraying.

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 / aerosols. Avoid contact with eyes, skin and clothing. Avoid breathing dust or spray mist.

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed and dry. Protect from light. Store in original container.

7.3 Specific end use(s)

See section 1 for more information, Use of the substance/preparation.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits Based on data available for ingredients.

Chemical name	UK WEL	UK MEL	Ireland	Germany	France
Sucrose	20 mg/m ³ STEL 10 mg/m ³	20 mg/m ³	TWA: 10 mg/m ³ STEL: 20 mg/m ³	-	TWA: 10 mg/m ³

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Sodium Sulfate	-	-	-	-	-
Starch	30 mg/m ³ STEL (calculated, total inhalable); 12 mg/m ³ STEL (calculated, respirable) 10 mg/m ³ total inhalable 4 mg/m ³ respirable	30 mg/m ³ total inhalable 12 mg/m ³ respirable	TWA: 10 mg/m ³ TWA: 4 mg/m ³	-	-
Talc	3 mg/m ³ STEL (calculated, respirable dust) 1 mg/m ³ respirable dust	3 mg/m ³ respirable dust	TWA: 10 mg/m ³ TWA: 0.8 mg/m ³	-	-
Dust, non-specific	-	-	TWA: 10 mg/m ³ TWA: 4 mg/m ³	-	-

Chemical name	Denmark	Finland	Norway	Sweden	The Netherlands
Sucrose	-	-	-	-	-
Sodium Sulfate	-	-	-	-	-
Starch	-	-	-	-	-
Talc	TWA: 0.3 fiber/cm ³	TWA: 0.5 fiber/cm ³	TWA: 6 mg/m ³ TWA: 2 mg/m ³	LLV: 2 mg/m ³ LLV: 1 mg/m ³	TWA: 0.25 mg/m ³
Dust, non-specific	-	-	TWA: 10 mg/m ³ TWA: 5 mg/m ³	-	-

Chemical name	Italy	Portugal	Spain	Austria	Switzerland
Sucrose	-	TWA: 10 mg/m ³	TWA: 10 mg/m ³	-	-
Sodium Sulfate	-	-	-	-	-
Starch	-	TWA: 10 mg/m ³	TWA: 10 mg/m ³	-	TWA: 3 mg/m ³
Talc	-	TWA: 2 mg/m ³	TWA: 2 mg/m ³	TWA: 2 mg/m ³	TWA: 2 mg/m ³
Dust, non-specific	-	TWA: 10 mg/m ³ TWA: 3 mg/m ³	TWA: 10 mg/m ³ TWA: 3 mg/m ³	-	-

Chemical name	Russia	Estonia	Latvia	Lithuania	Poland
Sucrose	-	TWA 10 mg/m ³	TWA 5 mg/m ³	TWA 10 mg/m ³	-
Sodium Sulfate	-	-	TWA 10 mg/m ³	TWA 10 mg/m ³	-
Starch	-	-	-	-	-
Talc	-	-	-	TWA 2 mg/m ³ TWA 1 mg/m ³	TWA: 4.0 mg/m ³ TWA: 1.0 mg/m ³
Dust, non-specific	-	TWA: 5 mg/m ³	-	IPRV: 5 mg/m ³	-

DNEL/DMEL - Workers

The substance does not require registration according to REACH.

DNEL/DMEL - General population

The substance does not require registration according to REACH.

Predicted No Effect Concentration (PNEC)

The substance does not require registration according to REACH.

8.2. Exposure controls
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.

Engineering measures

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

Personal protective equipment

Respiratory Protection	Ensure adequate ventilation. If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. Recommended Filter type: P3 or Particulates filter conforming to EN 143.
Eye Protection	Avoid contact with eyes. Wear safety glasses with side shields (or goggles).
Skin and Body Protection	Wear protective gloves and protective clothing.
Hand Protection	Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves. Use of Solid material Requires Hand Protection; Minimum classification of EN 420. Use of Liquid material Requires Hand Protection; Gloves must conform to standard EN 374-2. No additional risk management measures required.

Environmental exposure controls Avoid release to the environment

Section 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Physical State:	Solid
Appearance:	Brown Granules
Odour:	Typical odor of fermented product.
Odor threshold:	No information available
pH	Not determined
Flash Point	Not applicable
Boiling point / boiling range	Not applicable
Autoignition temperature	Not applicable
Vapor pressure	Not applicable
Vapour Density	Not applicable
Viscosity	No information available
Water solubility	Soluble.
Partition Coefficient (n-octanol/water)	No information available
Specific gravity	Not applicable
Evaporation Rate	Not applicable
Decomposition temperature	Not determined
Flammability Limits in Air	Not applicable
Explosion limits	Not determined
Melting point/range	Not determined
Freezing Point	Not applicable

9.2 Other information**Section 10: STABILITY AND REACTIVITY****10.1. Reactivity**

Not expected

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur

10.4. Conditions to avoid

Avoid dust formation.

10.5. Incompatible materials

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None in particular

10.6. Hazardous decomposition products

None known

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Product Information

Acute toxicity

Oral Not expected to be toxic by ingestion.
Dermal No data available
Inhalation No data available

Irritation

Skin irritation May cause slight irritation
Eye irritation May cause slight irritation
Respiratory irritation May cause slight irritation

Systemic toxicity

There is no data available for this product.

Mutagenic effects

Not expected to cause mutagenic effects.

Carcinogenicity

There are no known carcinogenic chemicals in this product.

Reproductive effects

This product does not contain any known or suspected reproductive hazards

Sensitization

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

Component Information

Endo 1,4 beta-glucanase

Oral LD50/oral/rat >2000 g/kg. LD50/oral/rat >2000 mg/kg.

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

Eye irritation Not an irritant.

Skin irritation Not an irritant.

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

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 2000 mg/kg/d.

Xylanase

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

Eye irritation Not an irritant.

Skin irritation Not an irritant.

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

Talc

Eye irritation May cause minor irritation

Skin irritation May cause minor irritation

Respiratory irritation May cause minor irritation

Sensitization Not a skin sensitizer

Reproductive effects No Developmental toxicity In rats

Mutagenic effects 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 up to 20 mg/plate.

Starch

Oral LD50/oral/rat 2000 mg/kg.
Eye irritation May cause minor irritation
Skin irritation May cause minor irritation
Respiratory irritation May cause minor irritation

Sucrose

Oral LD50/oral/rat 29700 mg/kg.
Eye irritation May cause mild irritation.
Skin irritation May cause skin irritation
Respiratory irritation May cause respiratory tract irritation.

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Ecotoxicity unknown / Not determined.

12.2 Persistence and degradability

Enzymes are considered readily biodegradable.

12.3 Bioaccumulative potential

Bioaccumulation is unlikely.

12.4 Mobility in soil

Soluble in water

12.5 Results of PBT and vPvB assessment

The substance does not require registration according to REACH.

12.6 Other adverse effects

None known

Component Information

Based on data available for ingredients

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia	biodegradation
Sodium Sulfate	EC100/8d/algae = 57700 mg/l.	Cyprinus carpio 24 hr LC50 = 1500 mg/L.	EC50/96hr/daphnia 630 mg/L.	No data
Talc	No data	Brachydanio rerio LC50 = 100000 mg/L.	No data	No data

Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste from residues/unused products

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 contents/containers in accordance with local regulations.

Section 14: TRANSPORT INFORMATION

14.1. UN number	Not regulated
14.2. UN proper shipping name	Not regulated
14.3. Transport hazard class(es)	Not regulated
14.4. Packing group	Not regulated
14.5. Environmental hazards	Not regulated
14.6. Special precautions for user	Not regulated
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not regulated

Section 15: REGULATORY INFORMATION

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

Germany

Water Endangering Classes (WGK) WGK: 1

Chemical name	TA Luft List (Germany)	Occupational Illnesses (R-463-3, France)
Endo 1,4 beta-glucanase		RG 63
Xylanase		RG63
Talc		RG 25

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

Section 16: OTHER INFORMATION

Full text of Hazard statements referred to under section 3

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

Prepared By SDS-Genencor@Danisco.com

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SDS sections updated:

None.

Training Advice

Details on the safe handling of enzymes can be found in the 'AMFEP Guide to the Safe Handling of Enzymes' (www.amfep.org).

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