

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

Product Name Axta® XAP 101 TPT
Material number A30205
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**Company/undertaking identification**

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**Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Serious eye damage/eye irritation Category 2
Respiratory sensitisation Category 1

Label Elements

Signal Word

Danger

Hazard statements

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H319 - Causes serious eye irritation

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Precautionary Statements

P264 - Wash hands thoroughly after handling

P280 - Wear protective gloves and eye/face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/attention

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

P284 - 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

Other Hazards
Properties Affecting Health

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

PBT and vPvB assessment

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

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS
Description
Preparation

Chemical Name	%	CAS-No	EINECS-No	IUB Code	REACH No	CLP Classification
Talc	1-5	14807-96-6	238-877-9	-	-	Not classified
Starch	1-5	9005-25-8	232-679-6	-	-	Not classified
Subtilisin	1-5	9014-01-1	232-752-2	3.4.21.62	01-2119480434-38	Acute Oral 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Resp. Sens. 1 (H334) STOT SE 3 (H335) Acute Aquatic 1 (H400) Chronic Aquatic 2 (H411)
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)
Alpha Amylase	<1	9000-90-2	232-565-6	3.2.1.1	01-2119938627-26	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 water and soap. 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: Remove person to fresh air and keep 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

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

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

5.2. Special hazards arising from the substance or mixture

None in particular.

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.

6.2. Environmental precautions

Contain spill. Keep out of waterways.

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, and respiratory protection 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 and aerosols. Avoid contact with eyes, skin and clothing. Avoid breathing (dust, vapour, mist, gas).

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	UK WEL	UK MEL	Ireland	Germany	France
Subtilisin	TWA= 0.00004 mg/m ³	0.00012 mg/m ³	TWA= 0.00006 mg/m ³ = 0.00006 mg/m ³	-	-
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	-	TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 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 STEL: 30 mg/m ³ STEL: 2.4 mg/m ³	-	-
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

Chemical Name	Denmark	Finland	Norway	Sweden	The Netherlands
Subtilisin	Ceiling= 0.00006 mg/m ³	-	-	LLV= 3 glycineunit/m ³ LLV= 1 glycineunit/m ³	-
Starch	-	-	-	-	-
Talc	TWA: 0.3 fiber/cm ³	TWA: 0.5 fiber/cm ³ STEL: 2 ppm STEL: 1 ppm	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
Sucrose	-	-	-	-	-

Chemical Name	Italy	Portugal	Spain	Austria	Switzerland
Subtilisin	-	Ceiling= 0.00006 mg/m ³	VLA-EC= 0.00006 mg/m ³	-	STEL= 0.00006 mg/m ³
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
Sucrose	-	TWA: 10 mg/m ³	TWA: 10 mg/m ³	-	-

Chemical Name	Russia	Estonia	Latvia	Lithuania	Poland
Subtilisin	-	-	-	-	-
Starch	-	-	-	-	-
Talc	-	-	-	TWA 2 mg/m ³ TWA 1 mg/m ³	TWA: 4.0 mg/m ³ TWA: 1.0 mg/m ³
Sucrose	-	TWA 10 mg/m ³	TWA 5 mg/m ³	TWA 10 mg/m ³	-

DNEL/DMEL - Workers

Chemical Name	Acute (local)	Acute (systemic)	Chronic (local)	Chronic (systemic)
Subtilisin	0.2% w/w		0.2% w/w	

DNEL/DMEL - General population
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	If exposure limits are exceeded, approved respiratory protection should be worn
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.

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	Fine granular
Appearance:	Tan.
Odour	Odourless
Odor threshold	No information available
pH	Not determined
Flash Point	Not applicable
Boiling point / boiling range	Not determined
Autoignition temperature	Not applicable
Vapor pressure	Not determined
Vapour Density	Not determined
Viscosity	No information available
Water solubility	Soluble.
Partition Coefficient (n-octanol/water)	No information available
Specific gravity	Not determined
Evaporation Rate	No information available
Density	Not determined
Decomposition temperature	Not determined
Flammability Limits in Air	Not applicable
Explosion limits	Not determined
Melting point/range	Not determined
Freezing Point	Not defined

9.2. Other information 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

None under normal processing

10.4. Conditions to avoid

Avoid dust formation

10.5. Incompatible materials

None in particular

10.6. Hazardous decomposition products

None known.

Section 11: TOXICOLOGY INFORMATION

11.1. Information on toxicological effects

Product Information

Acute toxicity

Ingestion Toxicity Not expected
Dermal No data available
Inhalation No data available

Irritation

Skin irritation Not expected to cause 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

There is no data available for this product

Carcinogenicity

There is no data available for this product

Reproductive effects

There is no data available for this product

Sensitization

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

Component Information

Classification based on data available for ingredients

Subtilisin

Oral Oral LD50 (rat) =1800 mg/kg
Inhalation LC50/inhalation/4h/rat 0.8 mg/l.
Eye irritation Causes severe eye irritation
Skin irritation May cause skin irritation
Respiratory irritation May cause irritation of respiratory tract
Sensitization Patch test on human volunteers did not demonstrate sensitisation properties May cause sensitisation in susceptible people Repeated inhalation of enzyme containing aerosol (dust or mist) can cause a respiratory allergy in some individuals
Reproductive effects This product does not contain any known or suspected reproductive hazards
Mutagenic effects Negative in chromosomal aberration using human lymphocytes. Negative in Ames assay with and without metabolic activation up to 5000 µg/plate.
Systemic toxicity In a 90-day feeding study with rats, no evidence of toxicity attributed to treatment was seen at levels up to 50000 ppm/d. A NOAEL was established at > 50000 ppm/d.

Xylanase

Inhalation LC50/inhalation/4h/rat > 5.1 mg/l.
Eye irritation Not an irritant.
Skin irritation Not an irritant.
Sensitization May cause sensitisation in susceptible people 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 1140 mg/kg/d.

Alpha Amylase

Oral Oral LD50 (rat) 2000 mg/kg
Inhalation No data available
Eye irritation Not an irritant.
Skin irritation Not an irritant.
Sensitization May cause sensitisation in susceptible people Repeated inhalation of enzyme containing aerosol (dust or mist) can cause a respiratory allergy in some individuals
Mutagenic effects Negative in Ames assay with and without metabolic activation up to 5000 µg/plate. Negative in chromosome aberration using human lymphocytes with and without metabolic activation up to 5000 µg/ml. Data from similar enzyme.

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Systemic toxicity

In a 90-day study with rats, the NOEL was found to be 1000 ppm. In a 14-day feeding study with rats, a NOAEL was established at 5,000 ppm. Data from similar enzyme.

Talc

Eye irritation

May cause slight irritation

Skin irritation

May cause slight irritation

Respiratory irritation

May cause slight irritation

Sensitization

Not a skin sensitiser

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

Eye irritation

May cause mild irritation.

Skin irritation

May cause mild irritation.

Respiratory irritation

May cause mild irritation.

Sucrose

Oral

LD50/oral/rat 29700 mg/kg.

Eye irritation

May cause slight irritation

Skin irritation

May cause skin irritation

Respiratory irritation

May cause respiratory tract irritation

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

This product does not meet the DOT/UN/IMDG/IMO criteria of a marine pollutant.

12.2. Persistence and degradability

Based on data available for ingredients

12.3. Bioaccumulative potential

Bioaccumulation is unlikely.

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.

Component Information

Based on data available for ingredients

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia	biodegradation
Talc	No data	Brachydanio rerio LC50 = 100000 mg/L.	No data	No data
Subtilisin	NOEC = 0.041 mg protein/l (72 h). (Pseudokirchneriella subcapitata).	LC50: 8.2 mg/L (96 h) Rainbow trout.	EC0/48hr/daphnia 0.17 mg/L.	Readily biodegradable (102 % after 29 days).

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: TRANSPORTATION 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)
Subtilisin		RG63
Xylanase		RG63
Alpha Amylase		RG 63
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
 H400 - Very toxic to aquatic life
 H315 - Causes skin irritation
 H318 - Causes serious eye damage
 H335 - May cause respiratory irritation
 H302 - Harmful if swallowed
 H411 - Toxic to aquatic life with long lasting effects

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SDS sections updated: None, First edition in this format.**Disclaimer**

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End of Safety Data Sheet