

Revision Date 15/11/2017
 Revision Number 3

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

1.1. Product identifier

Product Name Aextra® PHY 20000 TPT2
 Product Code A14137
 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: Phytase



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/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
Talc	14807-96-6	5-10	238-877-9	-	No data available	Not classified
Phytase	9001-89-2	5-10	Na	3.1.3.26	-	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:
Talc	None known	3 mg/m ³ STEL (calculated, respirable dust) 1 mg/m ³ respirable dust	None known	TWA: 2 mg/m ³	Category 3B
Phytase	None known	None known	None known	None known	None known

Chemical Name	Italy	Portugal	The Netherlands	Finland	Denmark
Talc	None known	TWA: 2 mg/m ³	TWA: 0.25 mg/m ³	TWA: 0.5 fiber/cm ³ STEL: 2 ppm STEL: 1 ppm	TWA: 0.3 fiber/cm ³
Phytase	None known	None known	None known	None known	None known

Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Talc	TWA: 2 mg/m ³	TWA: 2 mg/m ³	TWA: 4.0 mg/m ³ TWA: 1.0 mg/m ³	TWA: 6 mg/m ³ TWA: 2 mg/m ³	TWA: 10 mg/m ³ TWA: 0.8 mg/m ³ STEL: 30 mg/m ³ STEL: 2.4 mg/m ³
Phytase	None known	None known	None known	None known	None known

DNEL/DMEL - Workers

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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)

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

Off-white to Light Tan

Odour

Odourless

Odour Threshold

No data available

pH

No data available

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

1.0-1.5 kg/l

Specific Gravity

No data available

Water Solubility

Soluble

Partition Coefficient

No data available

(n-octanol/water)

Autoignition Temperature

No data available

Decomposition Temperature

No data available

Dynamic viscosity

No data available

Explosive Properties

No information available

Oxidising Properties

No information available

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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

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**
- Carcinogenic effects**
- Reproductive effects**
- STOT - single exposure**
- STOT - repeated exposure**
- Aspiration hazard**

No data available.
No data available.
No data available.
No data available.
No data available.
Not expected.

Component Information

Classification based on data available for ingredients.

Talc

Eye irritation	May cause slight irritation
Skin irritation	May cause slight irritation
Respiratory irritation	May cause slight irritation
Sensitisation	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.

Phytase

Oral	Oral LD50 (rat) > 2000 mg/kg
Dermal	No information available
Inhalation	LC50/inhalation/4h/rat >4.99 mg/l
Eye irritation	Non-irritant

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Skin irritation	Non-irritating to the skin
Sensitisation	Not a skin sensitizer in mice. May cause sensitisation in susceptible persons. Repeated inhalation of enzyme containing aerosol (dust or mist) can cause a respiratory allergy in some individuals.
Reproductive effects	Developmental toxicity or Reproductive toxicity Not expected.
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.
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 144 mg/kg/d (TOS).

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

Not applicable

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

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to daphnia
Talc 14807-96-6	No data	Brachydanio rerio LC50 = 100000 mg/L.	No data

12.2. Persistence and degradability

Based on data available for ingredients.

Chemical Name	Biodegradation
Talc 14807-96-6	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.

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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
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)
Phytase	1

Chemical Name	TA Luft (German Air Pollution Control)	Occupational Illnesses (R-463-3, France)

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	Regulation)	
Talc		RG 25
Phytase		RG 63

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.

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