

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product Identifier****Product Name** Aextra® PHY 5000 L**Other means of identification****Material Number** A14086**Recommended use of the chemical and restrictions on use****Recommended Use** Animal feed.**Details of the supplier of the safety data sheet****Supplier Address**Danisco US Inc.  
Genencor, a Danisco Division  
3490 Winton Place  
Rochester, New York 14623 USA  
+1 (585) 256-5200  
+1 (800) 847-5311**E-mail Address**

SDS.Genencor@DuPont.com

**Emergency Telephone Number**+1 (319) 368-7657. For a Distribution incident - Spill, Leak, or Accident  
CALL CHEMTREC - 800-424-9300 (within US)  
DuPont registration number 671983**2. HAZARDS IDENTIFICATION****Classification**

Respiratory sensitization

Category 1

**Label Elements****Emergency Overview****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/vapors/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 CENTER or doctor/physician

**Hazards not otherwise classified (HNOC)**

**Other information**

None Known

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Description Preparation

Chemical Name	CAS-No	%
Phytase	9001-89-2	1-5

**4. FIRST AID MEASURES**

**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.

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

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

**Most important symptoms and effects, both acute and delayed**  
 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

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

**Unsuitable Extinguishing Media** None.

**Special hazard**

None Known

**Explosion Data**

**Sensitivity to Mechanical Impact** No.

**Sensitivity to Static Discharge** No.

**Protective Equipment and Precautions for Firefighters**

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

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

Avoid generation of dust and aerosols. Use personal protection recommended in Section 8.

**Environmental Precautions**

Contain spill.

**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.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

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

**Conditions for safe storage, including any incompatibilities****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.

**Incompatible Products**

None known.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters****Exposure Guidelines**

Based on data available for ingredients.

**Appropriate engineering controls****Engineering Measures**

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

**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.

**Individual protection measures, such as personal protective equipment****Eye/Face Protection**

Wear safety glasses with side shields (or goggles).

**Skin and Body Protection**

Wear protective gloves and protective clothing.

**Respiratory Protection**

If exposure limits are exceeded, NIOSH/MSHA approved respiratory protection should be worn.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	
Physical State	Liquid
Color	Brown
Odor	Typical odor of fermented product.
Odor Threshold	No data available
pH	5.0 - 5.5
Melting point/freezing point	No data available
Boiling point / boiling range	No data available
Flash Point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
<b>Upper/lower flammability or explosive limits</b>	
Upper Flammability Limit	No data available
Upper explosive limits	No data available
Lower Flammability limit	No data available
Lower explosive limits	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Relative density	No data available
Specific Gravity	1.10 - 1.20
Water Solubility	Soluble
Partition Coefficient (n-octanol/water)	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available

## 10. STABILITY AND REACTIVITY

### Reactivity

Not expected.

### Chemical stability

Stable under normal conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

None Known.

### Incompatible Materials

None known.

### Hazardous decomposition products

None known.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

#### Acute toxicity

Inhalation	There is no data available for this product.
Eye Contact	Not expected to cause eye irritation.
Skin Contact	Not expected to cause irritation.
Ingestion	Toxicity Not expected

**Information on toxicological effects.**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** May cause sensitization in susceptible persons. Repeated inhalation of enzyme containing aerosol (dust or mist) can cause a respiratory allergy in some individuals.  
**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.  
**STOT - single exposure** There is no data available for this product.  
**STOT - repeated exposure** There is no data available for this product.  
**Aspiration hazard** Not expected.

**Numerical measures of toxicity**

*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  
**Skin irritation** Non-irritating to the skin  
**Sensitization** Not a skin sensitizer In mice  
**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 NOEL can be established at 144 mg/kg/d. (TOS).

Chemical Name	ACGIH	IARC	NTP	OSHA
Phytase 9001-89-2	None Known	None Known	None Known	None Known

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

**ATEmix (oral)** 21781 mg/kg.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Classification based on data available for ingredients

0% of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Persistence and Degradability**

Based on data available for ingredients

**Bioaccumulation/Accumulation**

No bioaccumulation potential

**Mobility**

Soluble in water

**Other Adverse Effects**

None Known

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods****Waste 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.

<b>14. TRANSPORT INFORMATION</b>
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Harmonized Tariff Code 3507.90.7000 (for enzymes)

DEPT. OF TRANSPORTATION UN OR NA NUMBER Not regulated

<b>15. REGULATORY INFORMATION</b>
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**U.S. Federal Regulations**

Chemical Name	SARA 313 - Threshold Values %	CERCLA/SARA - Section 302 Extremely Haz
Phytase	Not listed	Not listed

<b>16. OTHER INFORMATION</b>
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