



SAFETY DATA SHEET

According to
HSNO Hazardous Substances (Safety Data Sheets) Notice 2017

Section 1 Identification of the material and the supplier

Product: **Optiphos Plus 10,000 CT**
 Product Use: An enzyme preparation of 6-phytase (IUB 3.1.3.26) produced by strain *Komagataella pastoris*, having a minimum activity of 10,000 FTU / g.

Restriction of Use: Refer to Section 15

New Zealand Supplier: **Agrihealth NZ Ltd**
 Address: Level 2, 89 Grafton Road,
 Auckland 1010

Telephone: +64 9 215 1199
Emergency No: 0800 764 766 (National Poisons Centre)

Date of SDS Preparation: 12 November 2024

Section 2 Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020.

EPA Approval No: Veterinary Medicines (Non-dispersive Open System Application) Group Standard – HSR100759

Pictograms:



Sensitiser

Signal Word: **DANGER**

GHS Category	Hazard Code	Hazard Statement
Respiratory sensitisation	H334	May cause allergy or asthma symptoms or breathing difficulty if inhaled
Skin sensitisation	H317	May cause an allergic skin reaction

Prevention Code	Prevention Statement
P261	Avoid breathing dust, fumes, gas, mist, vapours or spray
P284	In case of inadequate ventilation, wear respiratory protection
P272	Contaminated work clothing should not be allowed out of the workplace
P280	Wear protective gloves/protective clothing/eye protection/face protection

Response Code	Response Statement
P304 + P340	IF INHALED: remove person to fresh air and keep comfortable for breathing
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTRE or a doctor
P302 + P352	IF ON SKIN: Wash with plenty of soap and water
P333 + P313	If skin irritation or rash occurs: get medical advice/attention
P362 + P364	Take off contaminated clothing and wash before reuse

Storage Code	Storage Statement
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Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3 Composition / Information on Hazardous Ingredients

Ingredients	Wt%	CAS NUMBER
6-Phytase	<10.0%	9001-89-2
Non-hazardous ingredients	>90%	-

Section 4 First Aid Measures

Routes of Exposure:

If in Eyes	Rinse eyes with sterile saline or eye wash
If on Skin	Rinse skin with clean water and dry
If Swallowed	Allow the subject to drink a glass of potable water. Rinse water
If Inhaled	Remove person to fresh air and allow to breathe normally

Most important symptoms and effects, both acute and delayed symptoms:

Inhalation: In sensitive and allergised individuals, may cause allergy or asthma symptoms or breathing difficulties if inhaled.

Section 5 Fire Fighting Measures

Hazard Type	Non-Flammable
Hazards from combustion products	When heated to decomposition toxic fumes may be emitted
Suitable Extinguishing media	Water spray or foam
Precautions for firefighters and special protective clothing	Wear full protective clothing and self-contained breathing apparatus (SCBA)
HAZCHEM CODE	Not assigned

Section 6 Accidental Release Measures

Wear protective gear as detailed in Section 8. Evacuate all unnecessary personnel.

Restrict access to contaminated area. In case of spillage, contain the dry material by sweeping or vacuuming. Vacuuming may disperse dust if appropriate dust collection filter is not part of the vacuum. Be aware of potential for dust explosion when using electrical equipment. If vacuum is not available, lightly mist material and remove by sweeping or wet wiping. Clean the contaminated area with new polyurethane sponge, soaked in water. Place the spillage in a container for waste disposal.

Dispose of waste according to the applicable local and national regulations.

Section 7 Handling and Storage

Precautions for Handling:

- Read label before use
- Avoid breathing dust
- In case of inadequate ventilation wear respiratory protection

Precautions for Storage:

- Store away from incompatible materials listed in Section 10
- Store below 25°C
- Store in the original container, away from direct heat or direct sunlight and away from foodstuffs
- Keep out of reach of children

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³

No ingredient has a known exposure standard.

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices APR 2022 13TH EDITION.

Engineering Controls

Engineering controls should be used as the primary means to control exposures. General room ventilation is adequate unless the process generates dust, mist or fumes.

Personal Protection Equipment



Eyes	Safety glasses or goggles
Hands	Wear impervious gloves if skin contact is possible
Skin	Use protective clothing (uniforms, lab coats, disposable coveralls, etc.) in both production and laboratory areas

Respiratory	Wear suitable respiratory equipment such as anti-dust mask (respirator) or local respiratory system
General	Do not eat, drink or smoke when using this product. Wash hands with soap and water before breaks and after work. Keep away from foodstuffs and beverages

Section 9 Physical and Chemical Properties

Appearance	Light beige to brown particles
Colour	Light beige to brown
Odour	Characteristic
Odour Threshold	Not available
pH	Not available
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Not available
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Specific Gravity	Not available
Water Solubility	Not available
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not available

Section 10 Stability and Reactivity

Stability of Substance	This product is stable under normal conditions
Possibility of hazardous reactions	Hazardous polymerisation does not occur
Conditions to Avoid	Store in closed, original containers and avoid generating environmental dust from the product
Incompatible Materials	None
Hazardous Decomposition Products	None

Section 11 Toxicological Information

Acute Effects:

Components		Species	Test results
6-phytase (liquid concentrate) (CAS 9001-89-2)	Acute, oral LD ₅₀	Rat	> 20 g/kg b.w
Glycerol monostearate (CAS 31566-31-1)	Acute IP LD ₅₀	Mouse	0.2 g/kg b.w

Eye damage/irritation	6-phytase does not cause eye irritation in an in vitro eye irritation test in isolated chicken eyes
Skin corrosion/irritation	6-phytase does not cause skin irritation in an in vitro skin irritation test using the EPISKIN model

Respiratory or skin sensitisation	6-phytase was established to have skin sensitization potential in the local lymph node assay in mice
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Chronic Effects:

Carcinogenicity	No data available
Reproductive Toxicity	No data available
Germ Cell Mutagenicity (6-phytase)	Bacterial reverse mutation test (Ames) <i>Salmonella, E.coli</i> - Negative Bone marrow micronucleus test Mouse - Negative
Aspiration	No data available
STOT/SE	No data available
STOT/RE	No data available

Section 12 Ecotoxicological Information

OptiPhos Plus 10000 CT is an enzyme which is degraded in the gastro-intestinal tract, and as it is of proteinaceous material any remaining material will further degrade in nature, hence it does not persist in the environment and degrades rapidly through biodegradation.

Product:	
Persistence and degradability	Degrades rapidly through biodegradation
Bioaccumulation	Does not persist in the environment and degrades rapidly through biodegradation
Mobility in Soil	Not applicable
Other adverse effects	No data available

Section 13 Disposal Considerations**Disposal Method:**

Dispose of as non-hazardous biological waste in accordance with all applicable laws and regulations.

Section 14 Transport Information

This product is NOT classified as a Dangerous Good for transport in NZ; NZS 5433:2020

Section 15 Regulatory Information

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval No: Veterinary Medicines (Non-Dispersive Open Application) Group Standard – **HSR100759**

HSW (HS) Regulations 2017	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities (Schedule 26)	Not required
Signage Trigger Quantities (Schedule 3)	Not triggered
Emergency Response Plan (Schedule 5)	Not triggered
Secondary Containment (Schedule 5)	Not triggered
Restriction of Use	Only use for the intended purpose.

ACVM Act and Regulations

See www.foodsafety.govt.nz for registration Conditions	Exempt from registration
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Section 16**Other Information****Glossary**

Cat	Category
EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices April 2022 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact the New Zealand distributor, if further information is required.

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12 November 2024

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