

**SECTION 1: Identification****1.1. Identification**

Product form : Mixture  
Product name : OptiPhos Plus 5,000G

**1.2. Recommended use and restrictions on use**

Use of the substance/mixture : Zootechnical feed additive.  
Restrictions on use : For animal use only; do not use the product on humans.

**1.3. Supplier**

Huvepharma Inc.  
525 Westpark Drive, Suite 230  
Peachtree City, GA 30269

**1.4. Emergency telephone number**

Emergency number : 1-877-994-4883

**SECTION 2: Hazard(s) identification****2.1. Classification of the substance or mixture****GHS US classification**

Respiratory sensitisation, Category 1

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**2.2. GHS Label elements, including precautionary statements****GHS US labelling**

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements (GHS US) :

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

[In case of inadequate ventilation] wear respiratory protection.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

If experiencing respiratory symptoms: Call a poison center or doctor.

Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**2.3. Other hazards which do not result in classification**

Other hazards which do not result in classification : Health effects: Direct contact with eyes or skin may cause irritation due to mechanical damage.  
Avoid the formation of dust.

**2.4. Unknown acute toxicity (GHS US)**

Not applicable

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	GHS US classification
phytate 6-phosphatase	CAS-No.: 9001-89-2	0 – 1	Resp. Sens. 1, H334
White mineral oil	CAS-No.: 8042-47-5	0 – 1	Asp. Tox. 1, H304

Full text of hazard classes and H-statements : see section 16

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

#### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
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#### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
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#### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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#### 5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapours/spray.
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##### 6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.  
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### OptiPhos Plus 5,000G

No additional information available

#### phytate 6-phosphatase (9001-89-2)

No additional information available

#### White mineral oil (8042-47-5)

##### USA - ACGIH - Occupational Exposure Limits

Local name	Mineral oil (fog)
ACGIH OEL TWA	5 mg/m <sup>3</sup>
ACGIH OEL STEL	10 mg/m <sup>3</sup>

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Avoid the formation of dust: exposure to dust may cause irritation by mechanical action on skin, eye, or respiratory tract.

#### Hand protection:

The product is not classified as corrosive or irritating to the skin. However, when handling the product, it is recommended to use protective gloves according to industrial hygiene standards.

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### Eye protection:

The product is not classified as corrosive or irritating to the eye. However, when handling the product, it is recommended to observe industrial hygiene standards and avoid dust formation.

### Skin and body protection:

Choose the appropriate protective medium according to the activity and the exposure, e.g. apron, boots, suitable clothing according to EN 13982 in case of powders.

### Respiratory protection:

Adopt respiratory protection devices, use suitable filter masks, complying with the relevant EN standards.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: (granules).
Colour	: light brown
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive limits	: Not applicable
Explosive properties	: No data available
Oxidising properties	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

#### phytate 6-phosphatase (9001-89-2)

LD50 oral rat	> 2000 mg/kg bodyweight OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method)
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#### White mineral oil (8042-47-5)

LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
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LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
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LC50 Inhalation - Rat	> 5 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
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Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)

- phytate 6-phosphatase: no dermal or eye irritation was observed.

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)

- phytate 6-phosphatase: no dermal or eye irritation was observed.

Respiratory or skin sensitisation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.

- phytate 6-phosphatase: from occupational data it is well known that active enzymes regardless of the catalytic activities are potential respiratory sensitisers. All enzymes must therefore be classified as respiratory sensitiser. Instead, the skin sensitisation potential of enzymes has been reviewed recently revealing that enzymes should not be considered skin sensitisers (Basketter,D.A, English,J.S, Wakelin,S.H, and White,I.R. (2008) Enzymes, detergents and skin: facts and fantasies. British journal of dermatology 158, 1177-118). In addition, there is an unequivocal statement from the trade organization of enzyme manufacturers AMFEP ([www.amfep.org](http://www.amfep.org)) on this topic showing that enzymes do not have skin sensitising potential.

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

- phytate 6-phosphatase: Under the conditions of this assay, the test substance has not shown any evidence of mutagenic activity in the Ames assay when tested to a concentration of 5000 µg/mL (equivalent to 5.36 mg enzyme concentrate dry matter/mL).

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

#### White mineral oil (8042-47-5)

NOAEL (chronic, oral, animal/male, 2 years)	1200 mg/kg bodyweight
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Additional data	Highly refined base oils are not carcinogenic via oral, dermal, or inhalation exposures (OECD 453)
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Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

- Mineral oil: Based on a weight of evidence and category read-across approach, there is insufficient data to classify Highly Refined base oil as toxic for reproduction.

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STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)  
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

### White mineral oil (8042-47-5)

NOAEL (oral, rat, 90 days)	≥ 1200 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
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Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)  
Viscosity, kinematic : Not applicable  
Symptoms/effects after inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

### White mineral oil (8042-47-5)

LC50 - Fish [1]	100 – 1000 mg/l LL50
EC50 - Crustacea [1]	> 100 mg/l LL50

### 12.2. Persistence and degradability

### White mineral oil (8042-47-5)

Persistence and degradability	Based on a supporting read-across study, HRBO was determined to be inherently biodegradable but not readily biodegradable.
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### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

### 14.1. UN number

Not regulated for transport

### 14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable  
Proper Shipping Name (TDG) : Not applicable

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Proper Shipping Name (IMDG) : Not applicable  
Proper Shipping Name (IATA) : Not applicable

### 14.3. Transport hazard class(es)

**DOT**  
Transport hazard class(es) (DOT) : Not applicable

**TDG**  
Transport hazard class(es) (TDG) : Not applicable

**IMDG**  
Transport hazard class(es) (IMDG) : Not applicable

**IATA**  
Transport hazard class(es) (IATA) : Not applicable

### 14.4. Packing group

Packing group (DOT) : Not applicable  
Packing group (TDG) : Not applicable  
Packing group (IMDG) : Not applicable  
Packing group (IATA) : Not applicable

### 14.5. Environmental hazards

Other information : No supplementary information available.

### 14.6. Special precautions for user

**DOT**  
No data available

**TDG**  
No data available

**IMDG**  
No data available

**IATA**  
No data available

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
phytate 6-phosphatase	9001-89-2	Present	Active	PMN;XU
White mineral oil	8042-47-5	Present	Active	

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### 15.2. International regulations

#### CANADA

##### phytate 6-phosphatase (9001-89-2)

Listed on the Canadian NDSL (Non-Domestic Substances List)

##### White mineral oil (8042-47-5)

Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

No additional information available

#### National regulations

##### phytate 6-phosphatase (9001-89-2)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

##### White mineral oil (8042-47-5)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

## SECTION 16: Other information

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Revision date : 03/08/2022

Full text of H-phrases	
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H304	May be fatal if swallowed and enters airways.

Safety Data Sheet (SDS), USA

The information on this data sheet reflects the currently available knowledge and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product, including the use of the product in combination with any other product or any other process, is the responsibility of the user. It is implicit that the user is responsible for determining appropriate safety measures and for applying the legislation covering his/her own activities.