



# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

**1.1. Identification of the substance or preparation:**  
**PROPHYTEX® EC**

**1.2 Use of the substance / preparation**  
Biological fungicide

**1.3. Company / undertaking identification:**  
**LAM INTERNATIONAL CORPORATION**  
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Butte, Montana 59701  
United States  
Tel: +1 406 782 2386  
Fax: +1 406 782 9912  
e-mail: [info@lamintl.com](mailto:info@lamintl.com)

**1.4. Emergency telephone**  
+1 406 782 2386

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture:

**Directive 67/548/EC and Directive 1999/45/EC:**

This product was classified in accordance with Directive 67/548/EC and Directive 1999/45/EC, adapting the requirements to Regulation (EC) n°1907/2006 (REACH regulation).

**CLP Regulation (EC) n° 1272/2008:**

Classification of this product has been carried out in accordance with CLP Regulation (EC) n° 1272/2008.

Eye irritation, Category III

### 2.2 Label elements

**Directive 67/548/EC and Directive 1999/45/EC:**

In accordance with the legislation, the elements on the label are as follows:

**S Phrases:**

S23: Do not breathe vapour and spray

S24: Avoid contact with skin

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S37/39: Wear suitable gloves and eye/face protection

S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

S51: Use only in well-ventilated areas

**Supplementary information:**

Non-applicable

**Substances that contribute to the classification:**

Alkyloxypoly-ethylenoxyethanol

**CLP Regulation (EC) n° 1272/2008:**

**Cautionary advice:**

P271: Use only outdoors or in a well-ventilated area.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.



P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

P310: Immediately call a POISON CENTER or doctor/physician.

P363: Wash contaminated clothing before reuse.

**Supplementary information:**

EUH401: To avoid risks to human health and the environment, comply with the instructions for use.

## 2.3 Other hazards

Non-applicable

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Chemical description:** Mixture of substances

**Components:**

In accordance with Annex II of Regulation (EC) n°1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 68038-70-0 EC: Index: REACH:	<i>Bacillus subtilis</i> Self Classified	1 < 3%

To obtain more information on the risk of the substances consult sections 8, 11, 12 and 16.

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the MSDS of this product.

**By inhalation:**

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

**By skin contact:**

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of modifications on the skin (stinging, redness, rashes, blister), seek medical advice with this Security Data Sheet

**By eye contact:**

Rinse eyes thoroughly with luke warm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the MSDS of the product.

**By consumption:**

In case of consumption, seek immediate medical assistance showing the MSDS of this product.

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

No symptoms or delayed effects.

### 4.3 Indication of any immediate medical attention and special treatment needed:

Non-applicable



## 5. FIRE – FIGHTING MEASURES

### 5.1 Extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

### 5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive subproducts are created (CO<sub>2</sub>, CO, NO<sub>x</sub>) that can become highly toxic and, consequently, can present a serious health risk.

### 5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit) in accordance with Directive 89/654/EC.

### Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

## 6. ACCIDENTAL RELEASE MEASURES

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

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have

### 6.2 Environmental precautions:

Product not classified as dangerous for the environment, however it is necessary to avoid spillage as the product is classified as dangerous for health and/or its physicochemical properties.

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

It is recommended: Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

### 6.4 Reference to other sections:

See sections 8 and 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling:

A.- Precautions for safe manipulation.

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.



B.- Technical recommendations for the prevention of fires and explosions.

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks.

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks.

It is recommended to have absorbent material available at close proximity to the product (See epigraph 6.3).

### **7.2 Conditions for safe storage, including any incompatibilities:**

A.- Technical measures for storage

Minimum Temp.: 5 °C

Maximum Temp.: 30 °C

Maximum time: 1 Year

B.- General conditions for storage.

Avoid sources of heat, radiation, static electricity and contact with food

### **7.3 Specific end use(s):**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

## **8. EXPOSURE CONTROLS/ PERSONAL PROTECTION**

### **8.1 Control parameters:**

Substances whose occupational exposure limits have to be monitored in the work environment  
There are no environmental limits for the substances contained in the product.

**DNEL (Workers):**

Non-applicable

**DNEL (Population):**

Non-applicable

**PNEC:**

Non-applicable



### **8.2. Exposure controls**

A.- General security and hygiene measures in the work place.



In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the professional exposure limits. In case of using individual protection equipment they should have the "CE marking" in accordance with Directive 89/686/EC. For more information on individual protection equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see epigraph 7.1





### B.- Respiratory protection.

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	-Filter mask for gases, vapours and particles -Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least R-95 or P-95.		EN 149:2001+A1:2009 EN 405:2001+A1:2009	Replace when an increase in resistance to breathing is observed and/or a smell or taste of the contaminant is detected.



### C.- Specific protection for the hands.

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	-Protective gloves against minor risks -Chemical-resistant gloves such as nitrile rubber or butyl rubber			Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420 and EN 374.



### D.- Ocular and facial protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	-Panoramic glasses against liquid splash -Protective eyewear (goggles, face shield, or shielded safety glasses)		EN 166:2001 EN ISO 4007:2012	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

### E.- Bodily protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
	-Work clothing -Long-sleeved shirt and long pants			For professional use only.
	-Anti-slip work shoes -Shoes plus socks		EN ISO 20347:2012	None

### F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

### Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see epigraph 7.1.D.

### Volatile organic compounds:

With regard to Directive 1999/13/EC, this product has the following characteristics:

V.O.C. (Supply): 0 % weight  
 V.O.C. density at 20 °C: 0 kg/m<sup>3</sup> (0 g/L)  
 Average carbon number: Non-applicable  
 Average molecular weight: Non-applicable



## 9. PHYSICAL AND CHEMICAL PROPERTIES

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

For complete information see the product datasheet.

#### Appearance:

Physical state at 20 °C: Liquid

Appearance: Transparent

Color: Yellowish/White when homogenized in water

Odor: Characteristic

#### Volatility:

Boiling point at atmospheric pressure: 282 °C

Vapour pressure at 20 °C: 0 Pa

Vapour pressure at 50 °C: 2 Pa (0 kPa)

Evaporation rate at 20 °C: Non-applicable \*

#### Product description:

Density at 20 °C: 0.9500 g/cm<sup>3</sup>

Relative density at 20 °C: Non-applicable \*

Dynamic viscosity at 20 °C: Non-applicable \*

Kinematic viscosity at 20 °C: 8 mPa.s

Kinematic viscosity at 40 °C: 6 mPa.s

Concentration: Non-applicable \*

pH: 7.6

\*Not relevant due to the nature of the product, not providing information property of its hazards.

Vapour density at 20 °C: Non-applicable \*

Partition coefficient n-octanol/water 20 °C: Non-applicable \*

Solubility in water at 20 °C: Non-applicable \*

Solubility property: Non-applicable \*

Decomposition temperature: Non-applicable \*

#### Flammability:

Flash Point: 162 °C

Autoignition temperature: 260 °C

Lower flammability limit: Non-applicable \*

Upper flammability limit: Non-applicable \*

### 9.2 Other information:

Surface tension at 20 °C: Non-applicable \*

Refraction index: Non-applicable \*

\*Not relevant due to the nature of the product, not providing information property of its hazards.



## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity:

No hazardous reactions are expected if the following technical instructions storage of chemicals. See section 7.

### 10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

### 10.3 Possibility of hazardous reactions:

Under the conditions no hazardous reactions are expected to produce a pressure or excessive temperatures.

### 10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

### 10.5 Incompatible materials:

Acids	Water	Combustive materials	Combustible materials	Others
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

### 10.6 Hazardous decomposition products:

See epigraph 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects:

#### Acute toxicity

#### Assessment of acute toxicity:

Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

Experimental/calculated data:

LD50 rat (oral): > 5,000 mg/kg (OECD Guideline 401)

LC50 rat (by inhalation): > 1.45 mg/l 4 h (other)

No mortality was observed. Highest concentration available for testing.

LD50 rabbit (dermal): > 2,000 mg/kg (OECD Guideline 402)

No mortality was observed.

#### Irritation

Assessment of irritating effects:

Not irritating to the skin. Mildly irritating to the eyes.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)

Serious eye damage/irritation rabbit: mildly irritant, Category III (OECD Guideline 405)

#### Respiratory/Skin sensitization

#### Assessment of sensitization:

There is no evidence of a skin-sensitizing potential.



Experimental/calculated data:  
Buehler test guinea pig: Skin sensitizing effects were not observed in animal studies. (OECD Guideline 406)

**Germ cell mutagenicity**

**Assessment of mutagenicity:**

Mutagenicity tests revealed no genotoxic potential.

**Other information:**

Non-applicable

## 12. ECOLOGICAL INFORMATION

The experimental information related to the ecotoxicological properties of the mixture itself is not available

**12.1 Toxicity:**

Non toxic

**12.2 Persistence and degradability:**

Not available

**12.3 Bioaccumulative potential:**

Not available

**12.4 Mobility in soil:**

Not available

**12.5 Results of PBT and vPvB assessment:**

Non-applicable

**12.6 Other adverse effects:**

Not described

## 13. DISPOSAL CONSIDERATIONS

**13.1 Waste treatment methods:**

Code	Description	Waste class (Directive 2008/98/EC)
02 01 08*	Agrochemical waste containing dangerous substances	Dangerous

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2000/532/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See paragraph 6.2.

**Regulations related to waste management:**

In accordance with Annex II of Regulation (EC) n°1907/2006 (REACH) the community or state provisions related to waste management are stated.

Community legislation: Directive 2008/98/EC, 2000/532/EC: Commission Decision of 3 May 2000

## 14. TRANSPORT INFORMATION

This product is not regulated for transport (ADR/RID,IMDG,IATA)

## 15. REGULATORY INFORMATION





### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

Candidate substances for authorization under the Regulation (EC) 1907/2006 (REACH): Non-applicable.

Regulation (EC) 1005/2009, about substances that deplete the ozone layer: Non-applicable.

Active substances for which a decision of non-inclusion onto Annex I or IA of Directive 98/8/EC: Non-applicable.

Regulation (EC) 689/2008, in relation to the import and export of hazardous chemical products: Non-applicable.

**Limitations to commercialization and the use of certain dangerous substances and mixtures (Annex XVII, REACH):**

Non-applicable.

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

**Other legislation:**

Non-applicable

### 15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

## 16. OTHER INFORMATION

### Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) N° 1907/2006

### Modifications related to the previous security card which concerns the ways of managing risks. :

Non-applicable

### Text of R-phrases considered in section 3:

**Directive 67/548/EC and Directive 1999/45/EC:**

R36: Irritating to eyes

### CLP Regulation (EC) n° 1272/2008:

Eye Irritation. 2: H319 - Causes serious eye irritation.

### Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

### Principal bibliographical sources:

<http://esis.jrc.ec.europa.eu>

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

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