

# SAFETY DATA SHEET

Date: 12.08.2014  
Version: 1 (Canada)  
Former date: 11.06.2012

**PRESTOP**



## SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

### 1.1 Product identifier

**Trade name** PRESTOP

**Product type** Wettable powder (WP)

**REACH Registration number** Not applicable to biological products.

### 1.2 Relevant identified uses of the mixture and uses advised against

**The uses of the mixture** PRESTOP biofungicide controls seed-borne, soil-borne and foliar plant diseases on greenhouse vegetables, herbs and ornamentals.

**Professional use only.**

### 1.3 Details of the supplier of the Safety Data Sheet

**Supplier** VERDERA OY / Lallemand Plant Care

**Street address** Kurjenkellontie 5 B

**Postcode and post office** FI-02270 ESPOO, Finland.

**Post-office box** P.O.BOX 5

**Postcode and post office** FI-02271 ESPOO, Finland.

**Telephone number** +358 10 217 3700

**Telefax** +358 10 217 3711

**E-mail address** infoverdera@lallemand.com

### 1.4 Emergency telephone number

**In Canada:** For poisoning emergency contact your provincial poison centre. If the victim is unconscious, not breathing or having a seizure, call 911.

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the mixture

**In Canada:** Product is not classified according to Pest Control Products Act as hazardous and does not contain any substances that are classified as hazardous or dangerous.

### 2.2 Label elements / Precaution statements

**In Canada:** Potential Sensitizer.  
Warning: contains the allergen milk.  
Keep out of reach of children.

Trade name: PRESTOP  
Date: 12.08.2014  
Version: 1 (Canada)

Keep away from food, drink and animal feed.  
Avoid contact with skin, eyes or clothing.  
Avoid breathing dust or spray mist.  
Wear a long-sleeved shirt, long pants, water proof gloves, eye goggles, shoes, socks, and dust/mist filtering respirator (MSH/NIOSH approval number prefix TC-21C) or a NIOSH approved respirator with any N-95, R-95, P-95 or HE filter for biological products when handling, mixing/loading or applying the product and during all clean-up/repair activities.  
Wash thoroughly with soap and water after handling.  
Remove contaminated clothing and wash before reuse.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.  
DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

### 2.3 Other supplemental hazard information

"Prestop contains *Gliocladium catenulatum* J1446. Micro-organisms may have the potential to provoke sensitising reactions."

## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

### 3.2 Mixtures

Composition according to CLP (EC) 1272/2008:

Substance name	CAS-, EC- or index number	REACH Registration No.	Concentration	Classification - pictograms - category - H-statements
Dried spores and mycelium of <i>Gliocladium catenulatum</i> J1446	n/a	n/a	$1 \cdot 10^8$ cfu/g <sup>(1)</sup> of the product (minimum)	None

(1) See Section 16 "Abbreviations and acronyms".

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

<b>IF ON SKIN/CLOTHING:</b>	Take off contaminated clothing. Wash with plenty of soap and water.
<b>IF IN EYES:</b>	Hold eye open and rinse slowly and gently with water. Remove contact lenses, if present, then continue rinsing eye.
<b>IF SWALLOWED:</b>	Rinse mouth and throat with copious amounts of water.
<b>IF INHALED:</b>	Move to fresh air.
<b>GENERAL:</b>	Seek medical attention IMMEDIATELY if irritation or signs of toxicity occur and persist or are severe. Take container, label or product name and Pest Control Product Registration Number with you, when seeking medical attention.
<b>TOXICOLOGICAL INFORMATION:</b>	Treat symptomatically.

Trade name: **PRESTOP**  
Date: 12.08.2014  
Version: 1 (Canada)

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

Potential sensitizer. Contains the allergen milk.

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

See section 4.1 for further information.

### **SECTION 5: FIREFIGHTING MEASURES**

#### **5.1 Extinguishing media**

Adequate media: All common extinguishing media, eg. water and extinguishing foam.  
Unsuitable media: None/unknown.

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

None.

#### **5.3 Advice for firefighters**

Wear fire/flammable resistant clothing. Wear respiratory protection (self contained breathing apparatus).

### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Applicators and other handlers must wear: long-sleeved shirt, long pants, water proof gloves, eye goggles, shoes, socks, and dust/mist filtering respirator (MSH/NIOSH approval number prefix TC-21C) or a NIOSH approved respirator with any N-95, R-95, P-95 or HE filter for biological products when handling, mixing/loading or applying the product and during all clean-up/repair activities. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

After foliar applications, early entry workers are restricted from entering application areas for 4 hours unless wearing a long-sleeved shirt, long pants, water proof gloves, shoes and socks. In addition eye goggles and a dust/mist filtering respirator (MSH/NIOSH approval number prefix TC-21C) or a NIOSH approved respirator with any N-95, R-95, P-95 or HE filter for biological products are required until spray mist has settled.

#### **6.2 Environmental precautions**

Avoid release to the environment. DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes. DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters. For guidance contact the Provincial Regulatory Agency.

Trade name: PRESTOP  
Date: 12.08.2014  
Version: 1 (Canada)

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

Do not contaminate water, food or feed by storage or disposal. Dispose of contents and container: in accordance with local and national regulations. See Section 13 for further information on national waste management.

### 6.4 Reference to other sections

For further information regarding personal protection and waste management see Section 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Applicators and other handlers must wear: long-sleeved shirt, long pants, water proof gloves, eye goggles, shoes, socks, and dust/mist filtering respirator (MSH/NIOSH approval number prefix TC-21C) or a NIOSH approved respirator with any N-95, R-95, P-95 or HE filter for biological products when handling, mixing/loading or applying the product and during all clean-up/repair activities.

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

PRESTOP consists of living microbes that are packed in unit packages. Store unopened packets in a cool (at or below +4°C), dry place. Use all contents in packet during the same day. Do not store opened packets since product will lose its viability. Unopened packets stored at or below +4°C have a viable shelf life of 12 months.

### 7.3 Specific end use(s)

Identified end uses indicated in section 1. Information of this section 7 should be taken into account.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

National occupational exposure limit values :	None.
Other limit values :	None.
DNEL :	None.
PNEC :	None.

### 8.2 Exposure controls

Appropriate engineering controls:	No exposure to the product is to be expected during normal handling when recommended and appropriate protective equipments are used. Avoid exposure.
Eye / face protection:	Goggles / face shield.
Skin protection:	Protective clothing (protective suit, rubber boots, hat).
Hand protection:	Rubber or plastic gloves (e.g. nitrile gloves).

Trade name: PRESTOP  
Date: 12.08.2014  
Version: 1 (Canada)

**Respiratory protection:** A dust/mist filtering respirator (MSH/NIOSH approval number prefix TC-21C) or a NIOSH approved respirator with any N-95, R-95, P-95 or HE filter.

**Thermal hazards:** None.

**Environmental exposure controls:** Active microbe is a natural and generally occurring bacteria. No exposure limits.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Pale powder.
Odour	Mild odour of soil.
Odour threshold	None.
pH	Approx. 7.
Melting point/freezing point	Not applicable.
Initial boiling point and boiling range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	Approx. 500 kg/cu.m.
Solubility(ies)	Insoluble.
Partition coefficient: n-octanol/water	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not applicable.
Viscosity	Not applicable.
Explosive properties	Not applicable.
Oxidising properties	Not applicable.

### 9.1 Other information

No further information.

## SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** Product is stable under normal conditions of use, storage and transportation.

**Chemical stability:** Product is stable under normal conditions of use, storage and transportation.

Trade name: PRESTOP  
Date: 12.08.2014  
Version: 1 (Canada)

<b>Possibility of hazardous reactions:</b>	Product is stable and hazardous reactions do not occur under recommended conditions of use, storage and transportation.
<b>Conditions to avoid:</b>	Avoid high temperatures (>30°C), UV-light and irradiation.
<b>Incompatible materials:</b>	Acids, bases, concentrated fertilizer liquids, chemical pesticides, food, drink and animal feeding stuffs.
<b>Hazardous decomposition products:</b>	Not applicable.

## SECTION 11: TOXICOLOGICAL INFORMATION

<b>Acute toxicity</b>	<b>No toxicity, infectivity or pathogenicity.</b>
<b>Oral:</b>	LD <sub>50</sub> (oral, rat) > 2 g/kg. Not toxic, infective or pathogenic to rat.
<b>Dermal/skin contact:</b>	LD <sub>50</sub> (dermal, rat) > 2 g/kg. Not toxic, infective or pathogenic to rat.
<b>Inhalation:</b>	Not toxic or pathogenic to rat.
<b>Intraperitoneal:</b>	Not toxic or pathogenic to rat.
<b>Skin corrosion/irritation</b>	No skin irritation.
<b>Serious eye damage/irritation</b>	None. Mild eye irritation (reversible within 2 days).
<b>Respiratory or skin sensitisation</b>	May have the potential to provoke sensitising reactions.
<b>Germ cell mutagenicity</b>	No data available. No recognised mutagenicity.
<b>Carcinogenicity</b>	No data available. No recognised carcinogenicity.
<b>Reproductive toxicity</b>	No data available.
<b>STOT-single exposure</b>	No data available.
<b>STOT-repeated exposure</b>	No data available.
<b>Aspiration hazard</b>	No data available.
<b>Other information</b>	No further information.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

The product and its components are not classified as ecologically toxic. *Gliocladium catenulatum* is a natural and generally occurring soil fungus.

Not toxic or pathogenic to fish, (no-observed-effect concentration (NOEC) =  $1.3 \cdot 10^8$  cfu/l).  
Not toxic or pathogenic to daphnia, (no-observed-effect concentration (NOEC) =  $2 \cdot 10^6$  cfu/l).  
Not toxic or pathogenic to bird, (LD<sub>50</sub> > 2000 mg/kg).  
Not toxic or pathogenic to honeybee (LD<sub>50</sub> > 5200 ppm).  
Not toxic or pathogenic to earthworm (LC<sub>50</sub> > 1250 mg/kg).

### 12.2 Persistence and degradability

Degradability expected to be easy, as for other naturally occurring soil microbes.

Trade name: PRESTOP  
Date: 12.08.2014  
Version: 1 (Canada)

### 12.3 Bioaccumulative potential

No expected bioaccumulative potential.

### 12.4 Mobility in soil

*Gliocladium catenulatum* -fungus is a natural inhabitant in soil.

### 12.5 Results of PBT and vPvB assessment

No data available.

### 12.6 Other adverse effects

No other known adverse effects.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Dispose of contents and container: in accordance with local and national regulations.

**In Canada:** Do not contaminate water, food or feed by storage or disposal.

1. Triple-rinse the empty container. Add the rinsings to the aqueous suspension.
2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements
5. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

## SECTION 14: TRANSPORT INFORMATION

Product is not classified as dangerous goods according to international transportation regulations in force ADR, RID, ADN, IATA and AMDG.

**Environmental hazards** None.

**Special precautions for user** None.

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Product is not intended for bulk transport.

Trade name: **PRESTOP**  
Date: 12.08.2014  
Version: 1 (Canada)

## SECTION 15: REGULATORY INFORMATION

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

Safety Data Sheet and Classification in accordance with PMRA biopesticide approval of Prestop (Reg. No.: 28820, Pest Control Products Act).

### 15.2 Chemical safety assessment

Chemical safety assessment of the product and results thereof presented in Section 7 and 8 of this Safety Data Sheet.

Chemical safety assessment related to plant protection products done by PMRA. Prestop is authorized as a biopesticide in Canada (Reg. No.: 28820, Pest Control Products Act).

## SECTION 16: OTHER INFORMATION

### Indication of changes

Version 1: Safety Data Sheet prepared in accordance with the classification and labelling requirements disclosed by PMRA in product authorization. The general design and content of Safety Data Sheet is prepared also to comply and/or to be in line with the current European SDS requirements for mixtures: CLP Regulation (EC) 1272/2008, Regulation (EU) 453/2010, Directive 1999/45/EC.

### Abbreviations and acronyms

Cfu/g Colony forming units per grams.

### Key literature references and sources for data

Regulations, Directives, Acts, databases, literature and own studies.

### Used method in evaluating classification

The information provided in this Safety Data Sheet is correct to the best of our knowledge 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, since the conditions of the operations mentioned are beyond our control. 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. Verdera Oy disclaims any liability for loss or damage resulting from the use of these data, information or suggestions.



Trade name: PRESTOP  
Date: 12.08.2014  
Version: 1 (Canada)

### List of relevant H- and P- statements or/and safety and other precautionary statements

H- and P-statements related to CLP Regulation (EC) 1272/2008 not in use in Canada.

#### PMRA approved precautionary statements:

Potential Sensitizer.

Warning: contains the allergen milk.

Keep out of reach of children.

Keep away from food, drink and animal feed.

Avoid contact with skin, eyes or clothing.

Avoid breathing dust or spray mist.

Wear a long-sleeved shirt, long pants, water proof gloves, eye goggles, shoes, socks, and dust/mist filtering respirator (MSH/NIOSH approval number prefix TC-21C) or a NIOSH approved respirator with any N-95, R-95, P-95 or HE filter for biological products when handling, mixing/loading or applying the product and during all clean-up/repair activities.

Wash thoroughly with soap and water after handling.

Remove contaminated clothing and wash before reuse.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

<b>IF ON SKIN/CLOTHING:</b>	Take off contaminated clothing. Wash with plenty of soap and water.
<b>IF IN EYES:</b>	Hold eye open and rinse slowly and gently with water. Remove contact lenses, if present, then continue rinsing eye.
<b>IF SWALLOWED:</b>	Rinse mouth and throat with copious amounts of water.
<b>IF INHALED:</b>	Move to fresh air.
<b>GENERAL:</b>	Seek medical attention IMMEDIATELY if irritation or signs of toxicity occur and persist or are severe. Take container, label or product name and Pest Control Product Registration Number with you, when seeking medical attention.
<b>TOXICOLOGICAL INFORMATION:</b>	Treat symptomatically.

### Training advice for workers

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