

Date: 05.05.2015
Version: 3 (USA)
Former date: 12.08.2014

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 and soil-borne plant diseases such as damping-off, root and stem rot, and wilt caused by e.g. *Alternaria*, *Fusarium*, *Phytophthora*, *Pythium*, *Rhizoctonia* and *Verticillium*, certain storage diseases caused by *Helminthosporium* and *Rhizoctonia*, as well as certain foliar diseases caused by *Botrytis* and *Didymella* on greenhouse or field grown vegetables, herbs, ornamentals, tree and forest seedlings and turf.

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 USA: For emergency/product information call 303-469-9221, Monday through Friday, 9 a.m. to 5 p.m. After 5 p.m. call your poison control center at 1-800-222-1222. You may also contact 1-800-424-9300 for emergency medical treatment information. For spill, leak, fire, exposure or accident call CHEMTREC at 1-800-424-9300.

Trade name: PRESTOP
Date: 05.05.2015
Version: 3 (USA)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the mixture

In USA: Product is not classified as hazardous according to GHS (Globally Harmonized System of Classification and Labelling of Chemicals) and does not contain any substances that are classified as hazardous or dangerous.

2.2 Label elements / Precaution statements

In USA: Hazards to Humans and Domestic Animals.
Harmful if swallowed.
Wash thoroughly with soap and water after handling.
Keep out of reach of children.
Wear protective gloves, clothing and face protection (with a NIOSH approved respirator with any N, P, R or HE filter).
Dispose of contents/container in accordance with local waste management regulation(s).

2.3 Other supplemental hazard information

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

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

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by disposal of equipment wash waters.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures

Composition according to GHS and 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*10 ⁸ cfu/g ⁽¹⁾ of the product (minimum)	None

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

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician for treatment advice. Rinse mouth. Do NOT induce vomiting.

Trade name: PRESTOP
Date: 05.05.2015
Version: 3 (USA)

- IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if victim is feeling unwell.
- IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention if victim is feeling unwell.
- IF ON SKIN OR CLOTHING:** Remove/take off contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you feel unwell.

Call a poison control center or doctor for further treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed.

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 and long pants. Waterproof gloves. Shoes plus socks. A NIOSH approved respirator with any N, P, R or HE filter.

Remove personal protection equipment immediately after handling this product. If gloves are worn, wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Trade name: **PRESTOP**
Date: 05.05.2015
Version: 3 (USA)

6.2 Environmental precautions

Avoid release to the environment. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by disposal of equipment wash waters.

For spill, leak, fire, exposure or accident call CHEMTREC at 1-800-424-9300.

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 and long pants. Waterproof gloves. Shoes plus socks. A NIOSH approved respirator with any N, P, R or HE filter.

7.2 Conditions for safe storage, including any incompatibilities

PRESTOP consists of living microbes that are packed in unit packages. Store unopened packages up to 6 months in a cool (below 46°F, 8°C), dry place and up to 2 weeks at room temperature (maximum 77°F, 25°C). Immediately use the entire package's content after opening.

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	No exposure to the product is to be expected during normal handling
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Trade name: PRESTOP
Date: 05.05.2015
Version: 3 (USA)

controls: 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).

Respiratory protection: A NIOSH approved respirator with any N, P, R 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.

Trade name: PRESTOP
Date: 05.05.2015
Version: 3 (USA)

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

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity	No toxicity, infectivity or pathogenicity.
Oral:	LD ₅₀ (oral, rat) > 2 g/kg. Not toxic, infective or pathogenic to rat.
Dermal/skin contact:	LD ₅₀ (dermal, rat) > 2 g/kg. Not toxic, infective or pathogenic to rat.
Inhalation:	Not toxic or pathogenic to rat.
Intraperitoneal:	Not toxic or pathogenic to rat.
Skin corrosion/irritation	No skin irritation.
Serious eye damage/irritation	None. Mild eye irritation (reversible within 2 days).
Respiratory or skin sensitisation	May have the potential to provoke sensitising reactions.
Germ cell mutagenicity	No data available. No recognised mutagenicity.
Carcinogenicity	No data available. No recognised carcinogenicity.
Reproductive toxicity	No data available.
STOT-single exposure	No data available.
STOT-repeated exposure	No data available.
Aspiration hazard	No data available.
Other information	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, (LD₅₀ > 2000 mg/kg).
Not toxic or pathogenic to honeybee (LD₅₀ > 5200 ppm).
Not toxic or pathogenic to earthworm (LC₅₀ > 1250 mg/kg).

Trade name: PRESTOP
Date: 05.05.2015
Version: 3 (USA)

12.2 Persistence and degradability

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

12.3 Bioaccumulative potential

No expected bioaccumulative potential.

12.4 Mobility in soil

Gliocladium catenulatum -fungus is a natural habitant of 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 USA: Do not contaminate water, food or feed by storage or disposal.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal (bags): Non-refillable container; do not reuse or refill the container. Completely empty bag into application equipment. Offer for recycling, if available; otherwise, discard in trash.

Container Disposal (plastic cans): Non-refillable container; do not reuse or refill the container. Triple rinse (or equivalent) container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available; otherwise, discard in trash.

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

Trade name: PRESTOP
Date: 05.05.2015
Version: 3 (USA)

of MARPOL73/78 and the IBC Code

Product is not intended for bulk transport.

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 GHS and EPA biopesticide approval of Prestop (EPA Reg. No.: 64137-11).

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 has been carried out by U.S. EPA. Prestop is authorized in the U.S. as a plant protection product / biopesticide (EPA Reg. No.: 64137-11).

SECTION 16: OTHER INFORMATION

Indication of changes

Version 2: Revisions and changes made to the general design and content of Safety Data Sheet, to get the U.S. version more in line with the current European SDS requirements for mixtures: CLP Regulation (EC) 1272/2008, Regulation (EU) 453/2010, Directive 1999/45/EC.

Version 3: Product is classified and labelled according to the Globally Harmonized System (GHS) and SDS revised to comply with the GHS standard for mixtures.

Abbreviations and acronyms

Cfu/g	Colony forming units per grams.
GHS	Globally Harmonized System of Classification and Labelling of Chemicals.

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

Trade name: **PRESTOP**
Date: 05.05.2015
Version: 3 (USA)

disclaims any liability for loss or damage resulting from the use of these data, information or suggestions.

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

Precautionary statements (according to GHS and EPA approval):

Hazards to Humans and Domestic Animals.

Harmful if swallowed. (H302)

Wash thoroughly with soap and water after handling. (P264)

Keep out of reach of children. (P102)

Wear protective gloves, clothing and face protection (with a NIOSH approved respirator with any N, P, R or HE filter). (P280)

Dispose of contents/container in accordance with local waste management regulation(s). (P501)

“Prestop contains *Gliocladium catenulatum* J1446. Micro-organisms may have the potential to provoke sensitising reactions.” (EUH208)

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

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by disposal of equipment wash waters.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician for treatment advice. Rinse mouth. Do NOT induce vomiting. (P301+P310+P330+P331)

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if victim is feeling unwell. (P304+P340+P314)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention if victim is feeling unwell. (P305+P351+P338+P314)

IF ON SKIN OR CLOTHING: Remove/take off contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you feel unwell. (P302+P306+P361+P353+P314)

Call a poison control center or doctor for further treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

Training advice for workers

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