

## SAFETY DATA SHEET

Date: 30.05.2014  
Version: 01CLP  
Former date: ---

GREENSTIM



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

## 1.1 Product identifier

Trade name	GREENSTIM
Material number	C04E0
REACH Registration number	01-2119520508-42

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

The uses of the mixture	Greenstim is used on turfs, garden plants and agricultural crops to improve the plants resistance to environmental stresses caused by heat, cold, drought and salinity. It also reduces the need for irrigation. Use for other purposes is prohibited.
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## 1.3 Details of the supplier of the Safety Data Sheet

Supplier	Lallemand Plant Care / VERDERA OY
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 (0)10 217 3700
Telefax	+358 (0)10 217 3711
E-mail address	infoverdera@lallemand.com

## 1.4 Emergency telephone number

Local Poison Center in Finland HUS, phone: +358 (0)9 471 977 or +358 (0)9 4711 (24hrs/d).

## SECTION 2: HAZARDS IDENTIFICATION

## 2.1 Classification of the mixture

Product is not classified as hazardous and does not contain any substances that are classified or labelled according to Regulation (EC) 1272/2008, (EU) 453/2010, (EG) 1907/2006 (REACH) or according to local regulations in Finland (eg. Chemicals Act 599/2013 and Decree 807/2001).

## 2.2 Label elements / Precaution statements

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#### Classification and labelling according to CLP (EC) 1272/2008:

P235 Keep cool.  
P260 Do not breath dust.  
P280 Wear protective gloves, clothing and face protection.  
P402 Store in a dry place.

#### 2.3 Other supplemental hazard information.

##### According to CLP (EC) 1272/2008:

Continuous breathing of dust, like any dust, may cause allergic type reactions in sensitive persons. Due to the hygroscopic nature of the dry product, avoid prolonged contacts with skin, eyes and mucous membranes.

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substances considered to be very persistent nor very bioaccumulating (vPvB).

### 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 - H-statements - category
Nitrogen	---	---	min 12%	None.
Water (residual moisture)	---	---	max 1,5%	None.
Ash	---	---	max 0,5%	None.
Other impurities	---	---	max 1%	None.

### SECTION 4: FIRST AID MEASURES

#### 4.1 Description of first aid measures

##### According to CLP (EC) 1272/2008:

**If swallowed:** Rinse mouth. Get medical advice/attention. (P301 + P330 + P313)  
**If on skin:** Wash with plenty of soap and water. If skin irritation occurs, get medical advice/attention. (P302 + P352 + P332 + P313)  
**If inhaled:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention. (P304 + P340 + P313)  
**If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention. (P305 + P351 + P338 + P337 + P313)

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



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No information available.

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

None.

### SECTION 5: FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

Adequate media: Use water spary, alcohol-resistant foam, dry chemical or carbon dioxide.  
Unsuitable media: None/unknown.

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

If overheated, the risk for formation of decomposition products (trimethylamine, ketene). Formation of nitrous vapours in combustion.

#### 5.3 Advice for firefighters

Wear fire/flame resistant clothing. Wear respiratory protection (self contained breathing apparatus). (P283 + P284)

### SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Use personal protective equipment as required. (P281)  
Avoid contact with the skin and the eyes. Avoid dust formation.

#### 6.2 Environmental precautions

Avoid release to the environment. (P273)  
Do not contaminate water with the product or its container No special environmental precautions required.

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

Dispose of contents and container: in accordance with local and national regulations. (P501)  
See Section 13 for further information on national waste management.

Do not dry sweep dust. Wet dust with water before sweeping or use a vacuum to collect dust. After cleaning, flush away traces with water.

#### 6.4 Reference to other sections

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

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## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Use personal protective equipment as required. (P281)  
Avoid dust formation. Avoid inhalation, ingestion and contact with skin and eyes. Provide appropriate exhaust ventilation at places where dust is formed.

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

Store in a dry and well-ventilated place in a tightly closed container at temperatures not exceeding +8°C. (P402 + P403 + P404 + P411)

### 7.3 Specific end use(s)

Identified end uses indicated in section 1. Information of this section 7 should be taken into account. See Section 13 for further information related to regulations on national waste management.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

#### National occupational exposure limit values :

Other dusts of organic origin:

Finland: TWA: 5 mg/m<sup>3</sup> ; STEL: 10 mg/m<sup>3</sup>  
Denmark: TWA: 3 mg/m<sup>3</sup>  
Sweden : LLV: 10 mg/m<sup>3</sup> ; LLV: 5 mg/m<sup>3</sup>  
Estonia : TWA : 5 mg/m<sup>3</sup>  
Lithuania : IPRV : 5 mg/m<sup>3</sup>

**DNEL :** General population:  
Acute (systemic) : 11178 mg/kg bw/day  
Chronic (systemic) : 4413 mg/kg bw/day

**Predicted no effect concentration (PNEC) :** Fresh water = 1,2 mg/L

### 8.2 Exposure controls

<b>Appropriate hygiene and engineering measures:</b>	Ensure adequate ventilation. Local exhaust ventilation of dust at the point of generation. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.
<b>Eye / face protection:</b>	Safety glasses with side-shields.
<b>Skin protection:</b>	Wear suitable protective clothing.
<b>Hand protection:</b>	Wear protective gloves.
<b>Respiratory protection:</b>	In case of insufficient ventilation: Effective dust mask.
<b>Environmental exposure controls:</b>	Not regulated.



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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Crystalline solid. Brown.
Odour	Faint molasses osour.
Odour threshold	No information available.
pH	6-10 (5% solution)
Melting point/freezing point	Not applicable.
Initial boiling point and boiling range	Not applicable.
Flash point	Not determined.
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	05.-0.6 kg/l.
Solubility(ies)	160 g / 100 g (in water, 25°C).
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 other information.

## SECTION 10: STABILITY AND REACTIVITY

Reactivity:	No data available.
Chemical stability:	Stable under normal conditions.
Possibility of hazardous reactions:	None under normal processing.
Conditions to avoid:	Very hygroscopic; protect from moisture. Avoid dust formation. Dust can form an explosive mixture in air.
Incompatible materials:	Strong bases.
Hazardous decomposition products:	Risk for formation of trimethylamine in hot, strongly alkaline solution.

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## SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity	Product: Generally regarded as safe by ingestion. LD50 (oral/rat) > 11179 mg/kg.
Skin corrosion/irritation	Prolonged or repeated contact may dry skin and cause irritation.
Serious eye damage/irritation	Not an irritant. Dust contact with the eyes can lead to mechanical irritation.
Respiratory or skin sensitisation	Not a sensitizer in guinea pig sensitization studies. Inhalation of dust in high concentration may cause irritation of respiratory system and may cause allergic type reactions in sensitive persons.
Germ cell mutagenicity	Negative in Ames assay with and without metabolic activation up to 5000 µg/plate. Negative in chromosomal aberration using human lymphocytes. No increases in micronuclei were noted in the bone marrow of mice dosed up to 2 gm/kg by the oral route.
Other information	Product does not present an acute toxicity hazard based on known information.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

### 12.2 Persistence and degradability

Readily biodegradable, according to appropriate OECD test. Biological degradability (28d): 88%.

### 12.3 Bioaccumulative potential

Bioaccumulation is unlikely.

### 12.4 Mobility in soil

The product is water soluble, and may spread in water systems.

### 12.5 Results of PBT and vPvB assessment

The mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). The mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

### 12.6 Other adverse effects

No known adverse effects.



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## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

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

Regulations and Directives related to waste management in Finland: Waste Act 646/2011, Government Decree on Waste 179/2012 and Environmental Protection Act 86/2000.

## 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	Not regulated.
Special precautions for user	Not regulated.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not regulated.

## SECTION 15: REGULATORY INFORMATION

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

This product is not classified as dangerous according to the CLP Regulation (EC) No 1272/2008. Safety Data Sheet and Classification in accordance with

#### EU Regulations:

**CLP Regulation (EC) 1272/2008** on classification, labelling, and packaging of substances and mixtures, amending and repealing Directives 67/548/EC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

**Regulation (EU) 453/2010** amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

**Regulation (EU) 453/2010 ANNEX II:** Requirements for the compilation of safety data sheets.

#### National Regulations in Finland:

**Chemicals Act 599/2013**, Ministry of Social Affairs and Health.

**Decree 807/2001** on chemical classification principles and labelling, Ministry of Social Affairs and Health.

**Environmental Protection Act 86/2000**, Ministry of Environment.

**Waste Act 646/2011** and amendments up to 195/2012 included, Ministry of the Environment.

**Government Decree on Waste 179/2012**, Ministry of Environment.

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#### National Regulations in Germany:

Classified as Water Endangering Classes (WGK): 1.

#### 15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance according to REACH Reg. 453/2010.

### SECTION 16: OTHER INFORMATION

#### Indication of changes

Safety Data Sheet modified and prepared to comply with CLP Regulation (EC) 1272/2008.

#### Abbreviations and acronyms

None.

#### Key literature references and sources for data

Regulations, databases, literature.

#### Used method in evaluating classification

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.  
This product is not classified as dangerous according to the CLP Regulation (EC) No 1272/2008.

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

P235	Keep cool.
P260	Do not breath dust.
P280	Wear protective gloves, clothing and face protection.
P402	Store in a dry place.

#### Disclaimer

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.



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