SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier: BOTANIGARD SE

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Relevant uses: Insecticide for agricultural use. For professional use only.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

Futureco Bioscience S.L.
Av. del Cadí 19-23, P.I. Sant Pere Molanta, Olèrdola
08799 Barcelona - Barcelona - Spain
Phone.: +34 938182891 - Fax: +34 938921726
calidad@futurecobioscience.com
www.futurecobioscience.com

1.4 Emergency telephone number:

SECTION 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) nº1907/2006 (REACH regulation).

Xi: R41 - Risk of serious damage to eyes

CLP Regulation (EC) nº 1272/2008:

Classification of this product has been carried out in accordance with CLP Regulation (EC) nº 1272/2008.

Acute Tox. 4: Acute inhalation toxicity, Category 4
Eye Dam. 1: Serious eye damage, Category 1

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:

R Phrases:

R41: Risk of serious damage to eyes

S Phrases:

S23: Do not breathe vapour and spray
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S39: Wear eye/face protection
S51: Use only in well-ventilated areas

Supplementary information:

Non-applicable

CLP Regulation (EC) nº 1272/2008:

Danger

Hazard indications:

Acute Tox. 4: H332 - Harmful if inhaled.
Eye Dam. 1: H318 - Causes serious eye damage.
Cautionary advice:

Date of compilation: 18/06/2013 Revised: 04/09/2013 Version: 2
SECTION 2: HAZARDS IDENTIFICATION (continue)

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
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.

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

Substances that contribute to the classification
Alkyloxypoly-ethylenoxyethanol

2.3 Other hazards:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

In accordance with Annex II of Regulation (EC) nº1907/2006 (point 3), the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 68131-40-8</td>
<td>Alkyloxypoly-ethylenoxyethanol</td>
<td>Self-classified</td>
</tr>
<tr>
<td>EC: Non-applicable</td>
<td>Directive 67/548/EC</td>
<td>Xi: R41</td>
</tr>
<tr>
<td>Index: Non-applicable</td>
<td>Regulation 1272/2008</td>
<td>Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>REACH: Non-applicable</td>
<td></td>
<td>10 - &lt;25 %</td>
</tr>
</tbody>
</table>

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

SECTION 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, blisters,...), 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

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:
SECTION 5: FIREFIGHTING MEASURES (continue)

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 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.

SECTION 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 protection.

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.

SECTION 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 subsection 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: 6 Months

B.- General conditions for storage
**SECTION 7: HANDLING AND STORAGE (continue)**

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.

**SECTION 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 Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1.

B.- Respiratory protection

<table>
<thead>
<tr>
<th>LRP Pictogram</th>
<th>PPE</th>
<th>Labelling</th>
<th>CEN Standard</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Filter mask for gases, vapours and particles</td>
<td>CE</td>
<td>EN 149:2001+A1:2009 EN 405:2001+A1:2009</td>
<td>Replace when an increase in resistance to breathing is observed and/or a smell or taste of the contaminant is detected.</td>
</tr>
</tbody>
</table>

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>LRP Pictogram</th>
<th>PPE</th>
<th>Labelling</th>
<th>CEN Standard</th>
<th>Remarks</th>
</tr>
</thead>
</table>

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>LRP Pictogram</th>
<th>PPE</th>
<th>Labelling</th>
<th>CEN Standard</th>
<th>Remarks</th>
</tr>
</thead>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>LRP Pictogram</th>
<th>PPE</th>
<th>Labelling</th>
<th>CEN Standard</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>CE</td>
<td>EN 340:2003</td>
<td>For professional use only.</td>
</tr>
</tbody>
</table>
SECTION 8: EXPOSURE CONTROLS/PERSOENAL PROTECTION (continue)

<table>
<thead>
<tr>
<th>LRP Pictogram</th>
<th>PPE</th>
<th>Labelling</th>
<th>CEN Standard</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>CE CAT II</td>
<td>EN ISO 20347:2004/A1:2007</td>
<td>None</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

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 subsection 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 ºC: 0 kg/m³ (0 g/L)
- Average carbon number: Non-applicable
- Average molecular weight: Non-applicable

SECTION 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 ºC: Liquid
- Appearance: Viscous
- Color: Beige
- Odor: Characteristic

**Volvatility:**
- Boiling point at atmospheric pressure: 282 ºC
- Vapour pressure at 20 ºC: 0 Pa
- Vapour pressure at 50 ºC: 2 Pa (0 kPa)
- Evaporation rate at 20 ºC: Non-applicable *

**Product description:**
- Density at 20 ºC: 900 kg/m³
- Relative density at 20 ºC: 0,9
- Dynamic viscosity at 20 ºC: 1047,5 cP
- Kinematic viscosity at 20 ºC: Non-applicable *
- Kinematic viscosity at 40 ºC: >20,5 cSt
- Concentration: Non-applicable *
- pH: 6,5 - 7,5
- Vapour density at 20 ºC: Non-applicable *
- Partition coefficient n-octanol/water 20 ºC: Non-applicable *
- Solubility in water at 20 ºC: Non-applicable *
- Solubility property: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

**D-** Produces serious eye damage after contact.

Contact with the skin and the eyes:

**C-** Exposure in high concentrations can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion and in serious cases, loss of concentration.

Inhalation:

**B-** Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.

Ingestion:

**A.-** In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

1. **Dangerous health implications:**
   - **A.-** Ingestion:
     - Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
   - **B.-** Inhalation:
     - Exposure in high concentrations can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion and in serious cases, loss of concentration.
   - **C-** Contact with the skin and the eyes:
     - Produces serious eye damage after contact.
   - **D-** CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

---

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continue)**

<table>
<thead>
<tr>
<th>Decomposition temperature:</th>
<th>Non-applicable *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability:</td>
<td></td>
</tr>
<tr>
<td>Flash Point:</td>
<td>182 °C</td>
</tr>
<tr>
<td>Autoignition temperature:</td>
<td>341 °C</td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

**9.2 Other information:**

<table>
<thead>
<tr>
<th>Surface tension at 20 °C:</th>
<th>Non-applicable *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refraction index:</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

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

**SECTION 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:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Combustive materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:

See subsection 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 (CO2), carbon monoxide and other organic compounds.

**SECTION 11: TOXICOLOGICAL INFORMATION**

11.1 Information on toxicological effects:

No experimental information is available on the product itself in relation to the toxicological properties. When performing the danger classification on corrosive or irritant effects the recommendations included in section 3.2.5 of Annex VI of Directive 67/548/EC, in paragraphs b) and c) of section 3 of article 6 of Directive 1999/45/EC and in section 3.2.3.3.5. of Annex I of CLP Regulation were taken into account.

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

1. A.- Ingestion:
   - Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
2. B.- Inhalation:
   - Exposure in high concentrations can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion and in serious cases, loss of concentration.
3. C- Contact with the skin and the eyes:
   - Produces serious eye damage after contact.
4. D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

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Date of compilation: 18/06/2013   Revised: 04/09/2013   Version: 2
SECTION 11: TOXICOLOGICAL INFORMATION (continue)

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.

E- Sensitizing effects:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensibilizing effects. For more information see section 3.

F- Specific target organ toxicity (STOT)-time exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Not available

SECTION 12: ECOLOGICAL INFORMATION

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

12.1 Toxicity:

Not available

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

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Waste class (Directive 2008/98/EC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>02 01 08*</td>
<td>Agrochemical waste containing dangerous substances</td>
<td>Dangerous</td>
</tr>
</tbody>
</table>

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 recommended disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) nº1907/2006 (REACH) the community or state provisions related to waste management are stated.

SECTION 14: TRANSPORT INFORMATION

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

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:
Candidate substances for authorisation 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 commercialisation 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.

SECTION 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 (Regulation (EC) N° 453/2010)

Modifications related to the previous security card which concerns the ways of managing risks:
Composition/information on ingredients:
· Removed Content
  Beauveria bassiana (63428-82-0)
Directive 67/548/EC and Directive 1999/45/EC:
· R Phrases
· S Phrases
CLP Regulation (EC) n° 1272/2008:
· Pictograms
· Hazard indications
· Cautionary advice
· Supplementary information

Text of R-phrases considered in section 3:
Directive 67/548/EC and Directive 1999/45/EC:
R41: Risk of serious damage to eyes
CLP Regulation (EC) n° 1272/2008:
Eye Dam. 1: H318 - Causes serious eye damage.

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

Abbreviations and acronyms:

- CONTINUED ON NEXT PAGE -
- ADR: European agreement concerning the international carriage of dangerous goods by road
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol–water partition coefficient
- Koc: Partition coefficient of organic carbon

The information contained in this security data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this security data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -