Companion Biological Fungicide

Section 1 -- IDENTIFICATION

1.1. Product Identifier
Product name: Companion Biological Fungicide
Synonym: Biological fungicide, bactericide

1.2. Recommended Use / Restrictions
Identified Uses: For the prevention, control and suppression of soil and foliar diseases. Activates ISR
Restrictions: N/A – Please see product label

1.3. Supplier Details
Company: Growth Products, Ltd.
80 Lafayette Avenue
White Plains, NY 10603-1603 USA
+011 914-428-1316 (9 am - 5 pm EST Mon - Fri)
questions@growthproducts.com

1.4. Emergency Telephone Number
Emergency Telephone: 800-222-1222 (American Association of Poison Control Centers)

Section 2 -- HAZARD(S) IDENTIFICATION

2.1. Classification of substance or mixture
Physical Hazards: This product is not considered hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Health Hazards (Potential Effects):
Micro-Organisms may have the potential to provoke sensitizing reactions in some individuals

Environmental Hazards: Not Classified

2.2. Label Elements
Pictogram: N/A
Signal Word: N/A
Hazard Statements: N/A
Precautionary Statements: Please see product label

2.3. Other Hazards
This product does not contain any substance classified as PBT or vPvB

NFPA Ratings

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>1</td>
<td>Slightly hazardous</td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
<td>Will not burn</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
<td>Stable</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>N/A</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

HMIS Ratings

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>0</td>
<td>Minimal hazard</td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
<td>Minimal hazard</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
<td>Minimal hazard</td>
</tr>
<tr>
<td>Personal (PPE)</td>
<td>B</td>
<td>Goggles, Gloves</td>
</tr>
</tbody>
</table>
Section 3 -- COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Registry No.</th>
<th>Concentration % by Weight</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacillus subtilis, strain GB03:</td>
<td>68038-70-0</td>
<td>0.03%</td>
<td>N/A</td>
</tr>
<tr>
<td>Inert ingredients (confidential):</td>
<td>-</td>
<td>0.97%</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 4 -- FIRST-AID MEASURES

4.1. Description of first-aid measures

Inhalation: Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if symptoms are severe or persist.

Ingestion: Never give anything by mouth to an unconscious person. Do not induce vomiting, unless instructed by a healthcare professional. Rinse mouth thoroughly with water. Get medical attention if any symptoms develop.

Skin Contact: Remove affected person from source of contamination. Take off immediately all contaminated clothing and wash it before reuse. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

4.2. Most important symptoms and effect, both acute and delayed

Inhalation: May cause respiratory irritation. There may be irritation of the throat with a feeling of tightness in the chest.

Ingestion: Ingestion may cause nausea, vomiting and stomach and digestive irritation. There may be soreness and redness of the mouth and throat.

Skin Contact: Skin contact may cause redness and irritation. Prolonged or repeated skin contact can result in the development of allergy-like skin reactions (e.g., dermatitis, rashes)

Eye Contact: There may be irritation and redness. Profuse watering of the eyes.

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

Notes for doctor: No specific recommendations. If in doubt, get medical attention promptly. Treatment may vary with the condition of victim and specifics of incident.

Specific treatments: Eye bathing equipment should be available on the premises.

Section 5 -- FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: The product is not flammable. Use fire-extinguishing media suitable for the surrounding environment. The substance itself does not burn.

Unsuitable extinguishing media: N/A
Environmental Hazards:
5.2. Special hazards arising from the substance or mixture
Hazardous combustion products: N/A

5.3. Advice for firefighters
Protective actions during firefighting: No specific firefighting precautions known. Irritant, non-flammable, water soluble. Do not inhale gases created by fire. Do not allow run-off from firefighting to enter drains or watercourses.
Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) eye protection and appropriate protective clothing.

Section 6 -- ACCIDENTAL RELEASE MEASURES
6.1. Personal precautions, protective equipment and emergency procedures
Personal precautions: Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions
Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleanup
Methods for cleaning up: Stop leak if possible without risk. Contain and absorb spillage with sand, earth or other noncombustible material. Transfer to a container for disposal. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections
Reference to other sections: For personal protection, see Section 8. For waste disposal, see Section 13.

Section 7 -- HANDLING AND STORAGE
7.1. Precautions for Safe Handling
Using precautions: Provide adequate ventilation. Avoid spilling. Avoid contact with skin and eyes. Wash hands thoroughly after handling.
Advice on general occupational hygiene: Do not eat, drink or smoke when using this product. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for Safe Storage, Including Any Incompatibilities
Storage precautions: Store in tightly closed original container in a dry, cool and well-ventilated place. Store at temperatures above 5°C. Keep away from heat and direct sunlight. Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)
Specific end use(s): The identified uses for this product are detailed in Section 1.2.

Section 8 -- EXPOSURE CONTROLS / PERSONAL PROTECTION
8.1. Control Parameters
Occupational exposure limits

<table>
<thead>
<tr>
<th>Material</th>
<th>Type</th>
<th>Value</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacillus subtilis, strain GB03 (CAS 68038-70-0):</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Inert ingredients:</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
8.2. Exposure controls
Protective equipment
General information:

Appropriate engineering controls: Protective engineering solutions should be implemented and in use before personal protective equipment is considered.

Eye / face protection: Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation.

Hand protection: Use chemical splash-type goggles. Face shield.

Eye / face protection: For hand protection, wear approved gloves made of nitrile, PVC, or neoprene. Thoroughly rinse the outside of gloves with water prior to removal. Inspect regularly for leaks.

Other skin and body protection: For body protection wear suitable protective clothing.

Hygiene measures: Avoid breathing vapors, mist or gas. Clean water should be available for washing in case of eye or skin contamination.

Respiratory protection: If concentrations in excess of 10 ppm are expected, use NIOSH/DHHS approved self-contained breathing apparatus (SCBA) or other approved air-supplied respirator (ASR) equipment (e.g., a full-face airline respirator (ALR)).

Environmental exposure controls: Eye bathing equipment should be available on the premises. Provide quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

Equipment:

HMIS Letter: B

Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical State:</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Brown</td>
</tr>
<tr>
<td>Odor</td>
<td>Sweet Earthy Odor</td>
</tr>
<tr>
<td>Weight per Gallon / Liter:</td>
<td>9.95# @ 70°F / 1.19 Kg @ 21°C</td>
</tr>
<tr>
<td>Storage Life at 70°F:</td>
<td>&gt;3 years</td>
</tr>
<tr>
<td>pH – 21C:</td>
<td>5-6</td>
</tr>
<tr>
<td>Solubility:</td>
<td>Soluble</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>About 210°F / 99°C</td>
</tr>
<tr>
<td>Freezing Point:</td>
<td>&lt;32°F / 0°C</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>20 cps @ 21 Degrees C</td>
</tr>
<tr>
<td>Flash Point/Method:</td>
<td>Noncombustible</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>Equivalent to water</td>
</tr>
<tr>
<td>Storage Temperature:</td>
<td>Above 32°F / 0°C</td>
</tr>
</tbody>
</table>

Section 10 -- STABILITY AND REACTIVITY

10.1. Reactivity
Reactivity: Stable

10.2. Chemical Stability
Stability: Stable under normal recommended storage conditions.

10.3. Possibility of Hazardous Reactions
Possibility of hazardous reactions: N/E

10.4. Conditions to Avoid
Conditions to avoid: Exposure to extreme temperatures and incompatible materials
Materials to avoid: N/E

10.6 Hazardous Decomposition Products

Hazardous decomposition products: N/E

Section 11 -- TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Toxicological effects: N/E. No data available.

Over Exposure, Acute: Liquid contact may cause slight eye irritation and repeated skin exposure may cause skin irritation.

Over Exposure, Chronic: N/E

Routes of Exposure: Not expected to be harmful under normal conditions of use, however if allowed to become airborne, may cause irritation of nose throat and lungs. May cause irritation from prolonged or repeated contact.

Acute, Dermal LD$_{50}$: N/E

Acute, Oral LD$_{50}$: N/E

Effects to eyes: No corneal or iridal effects were noted at dose of 0.1 ml, rabbits.

Effects to Ingestion: Non-toxic and non-pathogenic

Effects to skin: Moderate irritation, reversible within 7 days

11.2. Toxicological information on main components of the mixture:

Carcinogenicity Assessment: Bacillus subtilis: test not required for microorganisms

Mutagenicity Assessment: Bacillus subtilis: test not required for microorganisms

ACGIH: None

NTP: None

IARC: None

OSHA: None

Section 12 -- ECOLOGICAL INFORMATION

Ecotoxicity:

12.1. Toxicity

N/A

12.2. Persistence and degradability

Persistence and Degradability: N/E

12.3. Bioaccumulative potential

Bioaccumulative potential: Expected to desorb fairly rapidly from soil and not bioaccumulate.

Partition coefficient:

12.4. Mobility in Soil

Mobility: This product is biodegradable in soil by microbial activity

12.5. Results of PBT and vPvB Assessment

Not listed in EIS PBT List.

12.6. Other Adverse Effects

Other adverse effects: N/E

Section 13 -- DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Disposal methods: Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product, residue and/or container. Product as shipped Section 13.

Section 14 -- TRANSPORTATION INFORMATION

General

Product is not flammable, not corrosive, not explosive and not radioactive.
SAFETY DATA SHEET

14.1. UN Number: N/A
14.2. UN Proper Shipping Name: N/A
14.3. Transport Hazard Class(es): N/A
14.4. Packing Group: N/A
14.5. Environmental Hazards: N/A
14.6. Special Precautions for User: N/A
14.7. Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: N/A

Section 15 -- REGULATORY INFORMATION

15.1. Safety, health and Environmental Regulations / Legislation Specific for the Substance or Mixture
EU legislation: This product is labeled in accordance EU directives.
15.2. Chemical Safety Assessment
See Section 2.3 for NFPA & HMIS Ratings

Section 16 -- OTHER INFORMATION

REVISED DATE: 9 June 2016

Other Precautions: Read entire label before using
Abbreviations / Acronyms:
- N/E Not Established
- N/A Not applicable
- ACGIH American Conference of Governmental Industrial Hygienists
- TLV Threshold Limit Values
- PEL Permissible Exposure Limit
- REL Recommended Exposure Limit
- OSHA Occupational Safety and Health Administration
- NIOSH National Institute for Occupational Safety and Health
- TWA Time Weighted Average over 8 hours of work
- TLV Threshold Limit Value over 8 hours of work
- REL Recommended Exposure Limit
- PEL Permissible Exposure Limit
- STEL Short Term Exposure Limit during x minutes
- IDLH Immediately Dangerous to Life or Health
- TSCA Toxic substance Control Act (United States)
- DSL Domestic Substance List (Canada)
- EINECS European Inventory of Existing Commercial Chemical Substances (Europe)
- ELINCS European List of Notified Chemical Substances (Europe)
- ENCS Existing Chemical Substances
- IECSIC Inventory of Existing Chemical Substances
- KECL Korea Existing Chemicals Inventory
- PICCS Philippines Inventory of Chemical and Chemical Substances
- AICS Australian Inventory of Chemical Substances
- NZIoC New Zealand Inventory of Chemicals
- HMIS Hazardous Material Identification System (American Coatings Association)
- NFPA National Fire Protection Association
- PBT Persistent Bioaccumulative and Toxic
- vPvB Very Persistent and very Bioaccumulative
- STOT SE Specific Target Organ Toxicity; Single Exposure
- STOT RE Specific Target Organ Toxicity; Repeated Exposure

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Growth Products, Ltd. The data on this sheet relates only to the specific material designated herein. Growth Products, Ltd. assumes no legal responsibility for use or reliance upon this data.