



GARDEN FRIENDLY FUNGICIDE SAFETY DATA SHEET

Date of Compilation: March, 2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: Garden Friendly Fungicide
Registration No: 70051-60-8
Product Type: Wettable Granule
Active Ingredient: Bacillus amy/oliquefaciens strain 0747
CAS No.: 68038-60-8

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

Identified uses: Biofungicide/bactericide
Uses advised against: Not labeled uses

1.3. Details of the supplier of the safety data sheet

Name: Southern Agricultural Insecticides, Inc.
Address: P.O. Box 218 Palmetto, FL 34220 U.S.A.
Phone Number: (941) 722-3285
Website: www.southernag.com

1.4. Emergency telephone number

Emergency number: (941) 722-3285 Chemtrec (800) 424-9300 (24 hour transportation spill response)

2.1. Classification of the substance or mixture

Hazard Classification: Not classified by OSHA
EPA Signal Word: Caution (see Section 15)
Hazard Statements: None
Pictogram: None

Precautionary Statements: Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with eyes and clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking chewing gum, using tobacco and using the toilet.

2.2 Other Hazards: Do not apply directly to water or to areas where surface water is present, or to intertidal areas below mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Do not apply when weather conditions favor drift or runoff from treated areas.

SECTION 3: Composition/information on ingredients

3.1. Substances

| Active Ingredient | CAS No. | Wt. |
|----------------------|----------------|------|
| B. amyloliquefaciens | Not applicable | 25 % |

SECTION 4: First aid measures

4.1. Description of first aid measures

Generic measures

- Eye Contact: Immediately flush with water holding eye open for 15-20 minutes. Remove contact lenses after 5 minutes if present and continue rinsing eye. Seek medical attention if irritation persists.
- Skin Contact: Remove contaminated clothing and wash affected area with plenty of soap and water. If irritation persists call poison control or doctor for treatment advice
- Inhalation: Remove individual to fresh air. If person is not breathing call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible. Call poison control center or doctor for further advice. Have the product label with you when calling a poison control center or doctor.

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

May cause eye irritation

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

None specified

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable Extinguishing Media: All methods
- Unsuitable Extinguishing Media: None known

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: None known

5.3. Advice for firefighters

Protection of Firefighters: None known

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel: To avoid exposure wear long sleeved shirt, long pants, waterproof gloves, shoes and socks.
Applicators must wear a dust/mist filtering respirator meeting at least NIOSH standards N-95, R-95 or P-95.
- For emergency responders: Same as above

6.2. Environmental precautions:

Do not apply directly to water or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate. Do not apply when conditions favor drift or runoff from treated areas.

6.3. Methods and material for containment and cleaning up

- Methods for Containment: Use absorbent material to minimize runoff of spilled product.
- Methods for Clean-Up: Unused material should be disposed of in an approved waste facility following all federal, state and local regulations.
- Other Information: If a significant spill occurs, contact CHEM-TEL (800) 255 3924.

6.4. Reference to other sections

See Section 8 for occupational exposure limits and risk management measures. Refer to Section 13 for disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

See Section 8 for occupational exposure limits, risk management measures and personal protection equipment. Refer to Section 13 for disposal considerations.

7.2. Conditions for safe storage, including any incompatibilities

Do not contaminate water, food or feed during disposal. Store this product in a dry area inaccessible to children and pets. Store in original container only. Keep container closed when not in use.

7.3. Specific end use(s) Use according to label

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| | |
|--|-----------------|
| OSHA Permissible Exposure Limits (PELs): | None determined |
| ACGIH Threshold Limit Values: | None determined |
| Other Exposure Limits: | None determined |

8.2. Exposure controls

| | |
|-------------------------------|---|
| Engineering Controls: | None |
| Personal Protective Equipment | |
| Eye/Face Protection: | None specified |
| Skin Protection: | Long-sleeved shirt and long pants. Shoes and socks |
| Hand Protection: | Waterproof gloves |
| Body Protection: | Long-sleeved shirt and long pants |
| Respiratory Protection: | Mixers and loaders must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Repeated exposure to high concentration of microbial proteins can cause allergic sensitization. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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|--|--------------------------------|
| Appearance: | Brown granules |
| Odour: | Earthy |
| Odour Threshold: | Not available |
| pH 1 dilution: | 7.0-9.0 |
| Melting Point / Freezing Point: | Not applicable |
| Initial Boiling Point: | Not applicable |
| Boiling Range: | Not applicable |
| Flash Point: | Not available |
| Evaporation Rate: | Not applicable |
| Flammability (solid, gas): | Not available |
| Lower & Upper Flammability Limits: | Not available |
| Vapour Pressure: | Not available |
| Vapour Density: | Not available |
| Density: | 0.74-0.81 g/cc (CIPAC MT 186) |
| Solubility: | Not available |
| Partition Coefficient (n-octanol/water): | Not available |
| Auto-ignition Temperature: | 376°C (@ atmospheric pressure) |
| Decomposition Temperature: | Not available |
| Viscosity: | Not applicable |
| Other relevant properties: | None |

9.2. Other information

Not available.

SECTION 10: Stability and reactivity

| | |
|---------------------------------|--|
| 10.1. Reactivity | No known hazardous reactions when handled and stored according to stated provisions. |
| 10.2. Chemical stability | Stable when handled and stored according to stated provisions. |

10.4. Conditions to avoid

No known conditions to avoid when handled and stored according to stated provisions.

10.5. Incompatible materials

No known incompatible materials.

10.6. Hazardous decomposition products

No known hazardous decomposition products at temperatures above 250°C.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Toxicity

Toxicological information on the substance or mixture:

LD50(oral) LD50> 5000 mg/kg body weight rat

LD50(dermal) LD50> 5050 mg/kg body weight rat

LD50(inhalation) LD50> 2.18 mg/L

Skin corrosion/irritation: Non-irritating.

Eye irritation: Mildly irritating.

Respiratory or skin sensitization: Not sensitizing to guinea pigs.

Other information on adverse health effects:

Carcinogenicity

NTP Listed: Not applicable.

IARC Listed: Not applicable.

OSHA: Not applicable.

11.2 Reference to other sections

See Section 4 for symptoms and acute and delayed effects.

SECTION 12: Ecological information

12.1 Toxicity

Test species

Northern Bobwhite

Test method

Acute oral toxicity

Test substance

B. amyloliquefaciens strain 0747

LD50

LD50 > 2250 mg/kg body weight

Oncorhynchus mykiss

30 days

B. amyloliquefaciens strain 0747

LD50 > 8.1 X 10⁰ CFU/L

Daphnia magna

21 days

B. amyloliquefaciens strain 0747

EC50> 2.3 X 10⁰ CFU/L

Desmodesmus subspicatus

72 hours

Garden Friendly Fungicide

EC50> 2.3 X 10⁰ CFU/L

Apis mellifera L

48-h, dose

Garden Friendly Fungicide

LD50 Oral> 446.63 pg/bee

response test

LD50 Contact> 320 pg/bee

12.2. Persistence and degradability

The active substance B. amyloliquefaciens 0747 populations spreading to the environment during or after field application will rapidly decline to naturally occurring background levels.

12.3. Bioaccumulative potential

The active substance B. amyloliquefaciens 0747 does not multiply and accumulate in animals and humans.

12.4. Mobility in soil

The active substance B. amyloliquefaciens 0747 spores readily adsorb to the clay fractions in soils and show no evidence of leaching. Therefore the risk of ground water contamination is considered negligible.

12.5. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal Instructions: Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in a dry area inaccessible to children. Store in original containers only. Keep container closed when not in use.

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

Container Handling: Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

SECTION 14: Transportation information

14.1. UN number

Not regulated.

14.3. Transport hazard class(es)

Not regulated.

14.5. Environmental hazards

Not regulated.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not regulated.

14.2. UN proper shipping name

Not regulated.

14.4. Packing group

Not regulated.

14.6. Special precautions for user

Not regulated.

SECTION 15: Regulatory information

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

EPA: This product is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticidal chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION, KEEP OUT OF REACH OF CHILDREN

Causes moderate eye irritation.

Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

| | |
|-----------------------------|--------|
| OSHA: | N/A |
| TSCA Status: | Exempt |
| CERCLA Reportable Quantity: | N/A |
| SARA Title III: | |
| Section 302: | N/A |
| Section 311/312: | N/A |
| Section 313: | N/A |
| RCRA Status: | N/A |

SECTION 16: Other information

Disclaimer:

To the best of our knowledge, the information contained herein is accurate. However, Southern Agricultural Insecticides, Inc. assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All material may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.