



Bonide Revitalize Biofungicide Ready to Use

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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

1.1. Product identifier

Product name : Bonide Revitalize Biofungicide Ready to Use
Product code : 700511144

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

Use of the substance/mixture : Fungicide

1.3. Details of the supplier of the safety data sheet

Bonide Products, LLC
6301 Sutliff Road
Oriskany, NY 13424
Telephone Number: (315) 736-8231
Comment: Bonide hours of operation are 8:00 a.m. to 4:30 p.m EST.
Website: www.bonide.com
Email address: sales@bonide.com

1.4. Emergency telephone numbers (24 hour)

Medical : SafetyCall - (833) 972-1101
Spills : CHEMTREC - 1 (800) 424-9300 and/or 1 (703) 527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Not classified

2.2. Label elements

GHS-US labeling

No labeling applicable

2.3. Precautionary Statements

Harmful if absorbed through the skin. Harmful if inhaled. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

2.4. Other Hazards

None Known

SECTION 3: Composition/information on ingredients

Mixture

Name	Product identifier	%
Bacillus amyloliquefaciens strain D747	CAS# 68038-60-8	9.88

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Move person to fresh air. If person is not breathing call 911 or an ambulance, then give artificial respiration preferable mouth to mouth if possible. Call poison control center or doctor for further advice.

First-aid measures after skin contact : Take off contaminated clothing and rinse with plenty water for 15-20 minutes. Call poison control center or doctor for treatment advice.

First-aid measures after eye contact : Hold eye open and rinse slowly and gently for 15-20 minutes. Remove contact lens after 5 minutes if present then continue rinsing eye. Call poison control center or doctor for treatment advice.

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

None known

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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 extinguishing media

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Protection during firefighting : None Specified

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

: Use personal protection recommended in Section 8.

6.1.2. For emergency responders

: Use personal protection recommended in Section 8.

6.2. Environmental precautions

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local and national health and environmental regulations.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : None specified

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

Precautions for safe handling : After handling wash thoroughly with soap and water before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing promptly and wash separately before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in an area, that is inaccessible to children. Store in original containers only. Keep container closed when not in use..

7.3. Specific end use(s)

Double Nickel LC RTU provides control of plant pathogenic fungi and bacteria.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OSHA Permissible Exposure Limits (PELs): Not determined

ACGIH Threshold Limit Values: Not determined

Other Exposure Limits: Not determined

8.2. Exposure controls

Engineering Controls: None specified

Personal Protective Equipment None specified

Eye/Face Protection: None specified

Skin Protection None specified

Hand Protection: None specified

Body Protection: None specified

Respiratory Protection: None specified

Thermal Hazards: None

General Hygiene Considerations: Harmful if absorbed through the skin. Harmful if inhaled. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

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Environmental exposure controls: To protect the environment, do not allow pesticide to enter or run off into storm drains drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help ensure that wind or does not blow or wash pesticide off the treatment area.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	: Cream colored liquid
Odor	: Yeast like
Odor threshold	: Not determined
pH	: 4.5 - 5.0
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point / Freezing point	: 32°F (0°C)
Initial Boiling point	: 212°F (100 °C)
Flash point	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 0.93 - 1.03 g/ml
Solubility	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

None known

10.5. Incompatible materials

None known

10.6. Hazardous decomposition products

None known

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:
LD ₅₀ (oral)	: LD ₅₀ > 5000 mg/kg body weight rat, test results based on similar product containing more concentrated active ingredient.
LD ₅₀ (dermal)	: LD ₅₀ > 5050 mg/kg body weight rat, test results based on similar product containing more concentrated active ingredient.
LD ₅₀ (inhalation)	: LC ₅₀ > 2.18 mg/L, test results based on similar product containing more concentrated active ingredient.
Skin corrosion/ irritation	: Non-irritating, Toxicity Category IV, test results based on similar product containing more concentrated active ingredient.
Eye irritation	: No positive effects exhibited in any eyes after treatment Practically non- irritating, Toxicity Category IV, test results based on similar product containing more concentrated active ingredient.
Respiratory or skin sensitization	: No data available.

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Carcinogenicity : Not applicable.

SECTION 12: Ecological information

12.1. Toxicity

Test Species	Test Method	Test substance	LC ₅₀
Northern Bobwhite	Acute oral toxicity	B. amyloliquefaciens strain D747, active ingredient	LD ₅₀ > 2250 mg/kg body weight
Oncorhynchus mykiss	30 days	B. amyloliquefaciens strain D747, active ingredient	LC ₅₀ > 8.1 x 10 ¹⁰ CFU/L
Daphnia magna	21 days	B. amyloliquefaciens strain D747, active ingredient	EC ₅₀ > 2.3 x 10 ¹⁰ CFU/L
Apis mellifera	48 hours	B. amyloliquefaciens strain D747, active ingredient	LC ₅₀ > 1.0 x 10 ⁹ CFU/mL

12.2. Persistence and degradability

The active substance B. amyloliquefaciens D747 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 D747 does not multiply and accumulate in animals and humans.

12.4. Mobility in soil

The active substance B. amyloliquefaciens D747 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

Other information : 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 this product in its original container only, in an area inaccessible to children. Keep the container closed when not in use.

Pesticide Disposal and Container Handling: Non-refillable container. Do not reuse or refill this container.

If empty: Place in trash or offer for recycling if available.

If partly filled: Call your local solid waste agency for disposal instructions. Never place any unused product down any indoor or outdoor drain.

SECTION 14: Transport information

Not regulated for transport by DOT

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: Harmful if absorbed through skin. Harmful if inhaled. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

SECTION 16: Other information

Disclaimer:

To the best of our knowledge, the information contained herein is accurate. However, neither Certis USA nor any of its subsidiaries assume 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.

SDS US (GHS HazCom 2012) - Pesticides

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.