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VBC-90063 (OutReach)

SDS# VBC-0375 Revision 4

ISSUED 09/29/2023

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1 Product Identifier

MATERIAL NAME: VBC-90063

Synonyms: VBC-90063B – OutReach SC Nematicide

EPA Reg No.: 73049-531 Code Number: A585001 List Number: N/A

Chemical Family: Microbial; Bacillus amyloliquefaciens, strain PTA-4838

1.2 Relevant Identified Uses and Uses Advised Against

Identified Uses: Nematicide

Uses Advised Against:

1.3 Details of the supplier of the Safety Data Sheet

Supplied By: Valent BioSciences LLC

1910 Innovation Way, Suite 100 Libertyville, Illinois 60048

1.4 EMERGENCY TELEPHONE NUMBERS

Emergency Health or Spill:

VBC Product Information: 800-323-9597

Health Emergency (24 hours): 1-877-315-9819

US Transportation (24 hr): CHEMTREC: 800-424-9300 International Transportation (24 hr): 703-741-5970

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Eye irritation (Category 2B)

2.2 Labeling Elements

Symbol(s)

None

Signal Word

Warning

Hazard Statement(s)

Causes eye irritation



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2.3 Precautionary Statement:

Prevention

Wash hands and face thoroughly after handling

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If irritation persists: Get medical advice/attention.

Storage & Disposal

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

2.4 Other Hazards

None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS#	Component Name	Percent w/w (w/v)
None	Bacillus amyloliquefaciens, strain PTA-4838	2.2 (2.3)
Mixture	Dowfax 3B2	5.0 (5.3)
Multiple	AMF 4 species blend (Glomus intraradices, Glomus etunicatum,	0.22 (0.23)
	Glomus aggregatum, Glomus mosseae)	
	Propagule count: Minimum 384 ppg/ml	
	Other Ingredients	92.58 (98.4)

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

GENERAL: In all cases of doubt, seek medical attention.

EYES: Remove from source of exposure. Flush with copious amounts of water. Remove contact lenses, if present and easy to do, after the first 5 minutes, then continue rinsing. Immediately contact poison center or doctor. Provide symptomatic /supportive care as necessary.

SKIN: Remove from source of exposure. Take off contaminated clothing. Flush with copious amounts of water. May cause slight skin irritation. Repeated exposure may cause skin dryness or cracking. Contact with product at elevated temperatures can result in thermal burns. If irritation occurs or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

INGESTION: Remove from source of exposure. Move person to fresh air. Do NOT induce vomiting. If signs of toxicity occur, seek medical attention. Provide symptomatic /supportive



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care as necessary.

INHALATION: Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. If person is not breathing, call 911, then give artificial respiration.

4.2 Most important Symptoms and Effects, both Acute and Delayed Acute

No information on significant adverse effects

Delayed

No information on significant adverse effects

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively

5. FIRE FIGHTING PROCEDURES

5.1 Extinguisher Media

Suitable Extinguisher Media

Dry chemical, water spray, foam or carbon dioxide. Use appropriate medium for the underlying cause of the fire.

Unsuitable Extinguisher Media

None known

5.2 Specific Hazards Arising from the Chemical

Thermal decomposition products

Carbon monoxide, Sulfur oxides and Carbon dioxide

5.3 Advice to Firefighters

Protective Equipment and precautions for firefighters

Fire fighter should wear full-face, self-contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling combustion products. See Section 8 (Exposure Controls / Personal Protection)

Fire & Explosive hazard

Not expected to be flammable. This material will not burn until the water has evaporated. Residue can burn. If exposed to fire from another source and water is evaporated, exposure to high temperatures may cause toxic fumes.



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6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Use in a well-ventilated area. Wear eye protection appropriate to handling activities. Wear gloves. See personal protection as recommended in Section 8.

6.2 Environmental Precautions

Keep out of drains, sewers, ditches and waterways. Avoid runoff to waterways and sewers.

6.3 Methods and Materials for Containment and Cleaning Up

Ventilate area. Wear appropriate personal protective equipment. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth,) and place in a chemical waste container. Do not flush to sewer.

6.4 Reference to Other Sections

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

US Regulations may require reporting spills of hazardous materials: See Section 15: REGULATORY INFORMATION for details on reportable quantities, if any.

7. HANDLING AND STORAGE

7.1 Precautions for Safe handling

Use in a well-ventilated area. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink, chew gum or smoke while working with product, obey reasonable safety precautions and practice good housekeeping.

7.2 Conditions for Safe Storage, Including Incompatibilities

Store in a cool, dry place.

Incompatibilities

None Known

7.3 Specific End Use(s)

Experimental product



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Component Exposure Limits

None

Derived No Effect Levels (DNELs)

No DNELs available

Predicted No Effect Concentrations (PNECs)

No PNECs available

8.2 Exposure Controls

Appropriate Engineering Controls

Provide general ventilation. Where adequate general ventilation is unavailable use local exhaust ventilation, or other engineering controls.

SKIN PROTECTION:

Wear protective clothing, including boots and gloves. Wear gloves. Wash thoroughly with soap and water after handling.

EYE PROTECTION:

Wear goggles, safety glasses with side shields or full-face shield when splashing or spraying of materials is likely.

RESPIRATORY PROTECTION:

Where respiratory protection is warranted, use dust/mist filtering respirator (MSHA/NIOSH approved number prefix TC-21C or a NIOSH approved respirator with any N, P, R or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Brown Opaque Liquid	Odor:	Not Determined
pH:	7.49	Boiling Point:	Not Applicable
Melting Point:	Not Aplicable	Solubility (H ₂ O):	Not Determined
Specific Gravity:	Not Determined	Bulk Density:	1.063 g/mL
Octanol/H ₂ O Coeff:	Not Determined	Evaporation Rate:	Not Determined
Molecular Weight:	Not Applicable	Decomposition Temp.:	Not Determined
Auto Ignition:	Not Determined	LFL:	Not Determined
Flash Point:	Not Determined	UFL:	Not Determined
Vapor Density:	Not Determined	Vapor Pressure:	Not Determined
VOC:	Not Determined	Flammability Class:	Not Determined
Viscosity:	209.9 Centistokes (@20°C)		



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10. CHEMICAL STABILITY AND REACTIVITY

10.1 Reactivity

Material does not pose a significant reactivity hazard.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage. Spontaneous reaction not possible.

10.3 Possibility of Hazardous Reactions

Does not undergo hazardous polymerization

10.4 Conditions to Avoid

None known

10.5 Incompatible Materials

None known

10.6 Hazardous Decomposition Products

Carbon oxides and unidentified organic compounds.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

ACUTE EFFECTS

ORAL TOXICITY: LD₅₀ > 5000 mg/kg DERMAL TOXICITY: LD₅₀ > 5,000 mg/kg

INHALATION TOXICITY: > 5.21 mg/L CORROSIVENESS: Not corrosive. DERMAL IRRITATION: Slightly irritating

OCULAR IRRITATION: Mildly irritating (EPA Tox III)

DERMAL SENSITIZATION: Not a skin sensitizer

MUTAGENICITY INFORMATION: Negative.

CARCINOGENICITY INFORMATION: Not likely to be carcinogenic to Humans.

DEVELOPMENTAL/REPRODUCTIVE TOXICITY: N/A

SPECIAL TARGET ORGAN EFFECTS: None.

ASPIRATION HAZARD: Not Applicable

REPEAT DOSE STUDIES: N/A



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12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity (Similar Formulation of TGAI)

Fish: NOEC 1.0 X 106 CFU/mL (Rainbow Trout)

Bird: LC50 > 2.5 ml a.i./kg bw (Acute Oral - Bobwhite Quail)

Invertebrates (Daphnia): EC50 > 106 CFU/g

12.2 Persistence and Degradability

No data available

12.3 Bioaccumulation potential

No data available

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB assessment

Assessments not performed

12.6 Other adverse effects

None known

13. DISPOSAL CONSIDERATIONS

13.1 Waste Disposal Methods

Dispose of product in accordance with federal, state, provincial, and local regulations. Prevent contamination of environment by wastes.

14. TRANSPORTATION INFORMATION

DOT STATUS: Not regulated for domestic ground transport by US DOT

UN PROPER SHIPPING NAME: N/A

REMARKS: N/A

IATA/ICA0 STATUS: Not regulated

UN PROPER SHIPPING NAME: N/A

REMARKS: N/A

STATUS: Not regulated IMDG

UN PROPER SHIPPING NAME: N/A

REMARKS: N/A



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15. REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations / Specific Legislation

TSCA STATUS: Exempt CERCLA STATUS: N/D

SARA STATUS: Acute: No Chronic: No Fire: No CDT: No

RCRA STATUS: N/D

State Right-To-Know:

Pennsylvania:

Sulfuric acid disodium salt 7757-82-6 1,2-Propylene glycol 57-55-6

New Jersey:

1,2-Propylene glycol 57-55-6

Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.

OSHA HAZARD COMMUNICATION STANDARD: Not defined by the OSHA Hazard Communication Standard, 29 CFR

15.2 EPA Pesticide Regulations

EPA Registration Number: 73049-531

EPA Pesticide Label signal word: CAUTION

This chemical 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-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions and limitations for its use.

KEEP OUT OF REACH OF CHILDREN CAUTION

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS

Caution: Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.



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Storage and Disposal

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: This product consists of living microbes. Store at room temperature, but do not exceed 95°F (35°C). Do not freeze. Tightly close opened container.

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

Container Handling: For plastic containers less than or equal to 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. If burned, stay out of smoke. For plastic containers greater than 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank.

Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. If burned stay out of smoke.

16. OTHER INFORMATION

NFPA Hazard Ratings HMIS Hazard Ratings

Health: Health: 0 = MinimalN/D N/D Flammability: N/D Flammability: N/D 1 = Slight2 = Moderate Instability: N/D Instability: N/D 3 = Serious 4 = Extreme

REASON FOR ISSUE: Adding formulation code

APPROVAL DATE: 09/29/2023 SUPERSEDES DATE: 09/07/2023

LEGEND: N/A = Not Applicable N/D = Not Determined



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N/L = Not Listed L = Listed
C = Ceiling S = Short-term
(R) = Registered Trademark of Valent BioSciences LLC
(TM) = Registered Trademark of Valent BioSciences LLC

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This Safety Data Sheet (SDS) may provide more information than the product label but does not replace or modify the product labeling (attached to and accompanying the product container). The product SDS and the product label both provide consistent and important health, safety, and environmental information as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). This requirement covers employers, employees, emergency responders, users and others handling the product. All necessary hazard classification and appropriate precautionary, use, storage, and disposal information is set forth on the labeling and the SDS.



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