

VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 1

ISSUED 03/10/16

[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:** VectoLex® FG Biological Larvicide**Synonyms:** VectoLex® CG, VectoLex® G, VectoLex® 7.5 GR, VectoLex® WSP, ABG-6185**EPA Reg No.:** 73049-20**Code Number:** None**List Number:** 05722**Chemical Family:** Not applicable; microbial product**Substance Registration Number(s)[REACH]:** N/A**1.2 Relevant Identified Uses and Uses Advised Against****Identified Uses:** Biological mosquito larvicide**Uses Advised Against:** It is a violation of Federal law to use this product in a manner inconsistent with its FIFRA pesticide labeling.**1.3 Details of the supplier of the Safety Data Sheet****Supplied By:** Valent BioSciences Corporation
870 Technology Way
Libertyville, Illinois 60048**1.4 EMERGENCY TELEPHONE NUMBERS****Emergency Health or Spill:**

Outside the United States: 651-632-6184

Within the United States: 877-315-9819

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

VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 1

ISSUED 03/10/16

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

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 eye irritation persists: Get medical advice/ attention.

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	Classification	Percent
None	<i>Bacillus sphaericus</i> 2362, serotype H5a5b, strain ABTS 1743 fermentation solids	Eye Irritation – Cat 2A Skin Sensitizer – Cat 1A	7.5%
Trade Secret	Other ingredients	Not classified	82.5%

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. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.**SKIN:** Remove from source of exposure. Take off contaminated clothing. Flush with copious amounts of water. 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 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.

VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 1

ISSUED 03/10/16

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

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

Possible eye irritation and skin sensitization

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 oxides, nitrogen oxides

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.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

For respiratory protection wear a dust mask. Wear eye protection appropriate to handling activities. Wear gloves. See personal protection as recommended in Section 8.

6.2 Environmental Precautions

Dispose of excess product and washwaters according to local regulations.

VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 1

ISSUED 03/10/16

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

6.3 Methods and Materials for Containment and Cleaning Up

Wear appropriate personal protective equipment. Sweep up material and place in appropriate container for disposal. Avoid generating dust.

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**

For respiratory protection wear a dust mask. 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

Protect against physical damage. Keep in original containers. Close containers of unused material. Store in a dry, cool place.

Incompatibilities

None Known

7.3 Specific End Use(s)

Pesticide, biological mosquito larvicide

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.

VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 1

ISSUED 03/10/16

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

SKIN PROTECTION:

Wear protective clothing, including boots and gloves. For filling operations if dust/mist is produced wear a dust mask. 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 during application procedures or when repeat exposure is expected.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor:	Tan to Brown fine granules	Odor :	Characteristic odor
pH:	Not Determined	Boiling Point:	Not Determined
Melting Point:	Not Applicable	Solubility (H ₂ O):	Not Determined
Specific Gravity:	Not Determined	Bulk Density:	Not Determined
Octanol/H ₂ O Coeff:	Not Determined	Evaporation Rate:	Not Determined
Auto Ignition:	Not Determined	LFL:	Not Determined
Flash Point:	Not Determined	UFL:	Not Determined
Vapor Density:	Not Determined	Vapor Pressure:	Not Applicable
VOC:	Not Determined	Flammability Class:	None of the components are classified as flammable or highly flammable, it can be concluded that the preparation itself will not be classified as highly flammable.
Kinematic Viscosity:	Not Determined		

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

VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 1

ISSUED 03/10/16

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

10.6 Hazardous Decomposition Products

Carbon oxides and unidentified organic compounds.

11. TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects**

LIKELY ROUTES OF EXPOSURE

Eye Contact: Yes

Skin Contact: Yes

Ingestion: No

Inhalation: No

ACUTE EFFECTS Product Toxicology Studies

ORAL TOXICITY: LD₅₀ > 5,000 mg/kgDERMAL TOXICITY: LD₅₀ > 2,000 mg/kgINHALATION TOXICITY: LC₅₀ > 0.09 mg/L highest attainable concentration

CORROSIVENESS: Not corrosive.

DERMAL IRRITATION: slightly-irritating

OCULAR IRRITATION: Eye irritant – Cat 2B

DERMAL SENSITIZATION: Skin sensitizer – Cat 1A

MUTAGENICITY INFORMATION: Components of this product are not listed as mutagens.

CARCINOGENICITY INFORMATION: Components of this product are not listed as carcinogenic by NTP, IARC or OSHA.

DEVELOPMENTAL/REPRODUCTIVE TOXICITY: This material is not pathogenic

SPECIAL TARGET ORGAN EFFECTS: Eye and mucus membrane Irritation.

ASPIRATION HAZARD: Not Applicable

REPEAT DOSE STUDIES: Not Applicable, Pathogenicity Toxicity testing was all negative

12. ECOLOGICAL INFORMATION**12.1 Ecotoxicity (Data for a Concentrated Technical Powder)**Fish: LC₅₀ >15.5 mg/L (96-H, Rainbow Trout)LC₅₀ >15.5 mg/L (96-H, Blue Gill)Bird: LC₅₀ >9g /kg (Acute Oral - Mallard)Invertebrates: EC₅₀ >15.5 (48-H) (Daphnia)

Bees: Essentially non-toxic to bees

12.2 Persistence and Degradability

No data available

VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 1

ISSUED 03/10/16

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

12.3 Bioaccumulation potential

Not applicable. Substance is not pathogenic to non-target organisms

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.

US EPA WASTE NUMBER & DESCRIPTIONS:

There is no applicable EPA waste number. This product, if discarded, is not expected to be a characteristic or listed hazardous waste.

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
PROPER SHIPPING NAME: N/A
REMARKS: N/A

IMDG STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

15. REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations / Specific Legislation**

TSCA STATUS: Exempt

CERCLA STATUS: Not regulated as hazardous

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

VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 1

ISSUED 03/10/16

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

RCRA STATUS: Not regulated as hazardous

State Right-To-Know: Not Listed

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: 73049-20

EPA Pesticide Label signal word: CAUTION

Product must have EPA Approved Pesticide Label attached to or accompanying all containers.

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.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Causes moderate eye irritation. Harmful if absorbed through the skin or inhaled. Avoid contact with skin, eyes or clothing. Wear protective eyewear. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

ENVIRONMENTAL HAZARDS

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or persons under contract to these entities only.

VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 1

ISSUED 03/10/16

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

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in cool, dry place.**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:** Nonrefillable 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.**16. OTHER INFORMATION****NFPA Hazard Ratings**Health: 1
Flammability: 0
Instability: 0**HMIS Hazard Ratings**Health: 1
Flammability: 0
Instability: 00 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Extreme

REASON FOR ISSUE: Update hazard classification, transportation info and Warranty

APPROVAL DATE: 03/10/16

SUPERSEDES DATE: 04/30/15

LEGEND: N/A = Not Applicable

N/L = Not Listed

C = Ceiling

(R) = Registered Trademark of Valent BioSciences Corp.

(TM) = Registered Trademark of Valent BioSciences Corp.

N/D = Not Determined

L = Listed

S = Short-term

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Valent BioSciences Corporation and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither Valent BioSciences Corporation nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Valent BioSciences Corporation to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE

VectoLex® FG Biological Larvicide**SDS# VBC-0046 Revision 1****ISSUED 03/10/16**

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

EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.

870 Technology Way
Libertyville, IL 60048 – 800-323-9597

© Valent BioSciences Corporation, 2016