

**VectoMax® FG Biological Larvicide Fine Granules**

SDS# VBC-0018 Revision 2

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:** VectoMax® FG

**Synonyms:** VectoMax® G; VectoMax® WSP

**EPA Reg No.:** 73049-429

**Code Number:** N/A

**List Number:** 05750

**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**

Not Classified

**2.2 Labeling Elements**

**Symbol(s)**

Symbols not required

**Signal Word**

WARNING

**Hazard Statement(s)**

None

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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 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, strain ABTS-1743                        | Irritating to Eyes – Cat 2A<br>Skin Sensitizer – Cat 1A | 2.7%    |
| None         | <i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> , strain AM65-52 | Irritating to Eyes – Cat 2B<br>Skin Sensitizer – Cat 1B | 4.5%    |
| Trade Secret | Other ingredients  | Not classified  | 92.8%   |

**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.

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**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**

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**

Wear a dust/mist filtering respirator, eye protection and gloves.

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**6.2 Environmental Precautions**

Dispose of excess product and washwaters according to local regulations.

**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. 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**

Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink 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)**

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

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**8.2 Exposure Controls**

**Appropriate Engineering Controls**

Provide general ventilation.

**SKIN PROTECTION:**

Wear protective clothing, including boots and 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:**

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/Odor:                | Yellow/Brown granular solid  | Odor Threshold:                | None discernible                        |
| pH:                             | ≈ 5 (1% dispersion in water) | Boiling Point:                 | Not Determined                          |
| Melting Point:                  | Not Applicable               | Solubility (H <sub>2</sub> O): | Not Determined                          |
| Specific Gravity:               | Not Determined               | Bulk Density:                  | 32 +/- 3 lbs/cu ft.                     |
| Octanol/H <sub>2</sub> 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 Applicable                          |
| VOC:                            | Not Determined               | Flammability Class:            | Non-flammable (per similar formulation) |
| 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

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**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**

## LIKELY ROUTES OF EXPOSURE

Eye Contact: Yes

Skin Contact: Yes

Inhalation: No

Ingestion: No

## ACUTE EFFECTS Product Toxicology Studies

ORAL TOXICITY: LD<sub>50</sub> > 5,000 mg/kg (rat)DERMAL TOXICITY: LD<sub>50</sub> > 2,000 mg/kg (rabbit)INHALATION TOXICITY: LC<sub>50</sub> > 2.84 mg/L air (rat)

CORROSIVENESS: Not corrosive.

DERMAL IRRITATION: Not-irritating, (Category IV)

OCULAR IRRITATION: Mildly-irritating, (Category IV)

DERMAL SENSITIZATION: Not a sensitizer (guinea pig)

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 Bti Technical Powder)**Fish: LC<sub>50</sub> >300 mg/L (96-H, Rainbow Trout)Bird: LC<sub>50</sub> >3077 mg /kg (6.2 x 10<sup>11</sup> cfu/kg) (Acute Oral - Bobwhite Quail)LC<sub>50</sub> >3077 mg /kg (6.2 x 10<sup>11</sup> cfu/kg) each day for 5 days (Sub-Acute Oral (dietary) - Bobwhite Quail)Invertebrates: EC<sub>50</sub> >50 mg/L (48-H) (Daphnia)

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**(Data for a Concentrated Bsp Technical Powder)**Fish: LC<sub>50</sub> >15.5 mg/L (96-H, Rainbow Trout)Bird: LC<sub>50</sub> >9000 mg/kg (Acute Oral – Mallard)Invertebrates: EC<sub>50</sub> >15.5 mg/L (48-H) (Daphnia)**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.

**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

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**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

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 73049-429

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. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing. 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.



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**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.

**Storage and Disposal**

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

**PESTICIDE STORAGE:** Store in a cool, dry place.

**PESTICIDE DISPOSAL:** To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

**CONTAINER DISPOSAL:** 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. Do not burn, unless allowed by state and local ordinances. 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: 0

0 = Minimal  
1 = Slight  
2 = Moderate  
3 = Serious  
4 = Extreme

REASON FOR ISSUE: Update hazard classification and warranty

APPROVAL DATE: 03/10/16

SUPERSEDES DATE: 04/14/15

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LEGEND: N/A = Not Applicable

N/D = Not Determined

N/L = Not Listed

L = Listed

C = Ceiling

S = Short-term

(R) = Registered Trademark of Valent BioSciences Corp.

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

