

VectoMax[®] WSP

BIOLOGICAL LARVICIDE

WATER SOLUBLE POUCH

FOR ORGANIC PRODUCTION

BioFuse™

ACTIVE INGREDIENTS:

<i>Bacillus sphaericus</i> 2362, Serotype H5a5b, Strain ABTS 1743 Fermentation Solids, Spores, and Insecticidal Toxins	2.7%
<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> Serotype H-14, Strain AM65-52 Fermentation Solids, Spores, and Insecticidal Toxins	4.5%
OTHER INGREDIENTS	92.8%
TOTAL	100.0%

Potency: This product contains 50 BsITU/mg or 0.023 Billion BsITU/lb.

Expiration Date: (Two years from date of manufacture)

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA Reg. No. 73049-429 List No. 05750
EPA Est. No. 33762-IA-001 (Lot No. Suffix 'N8')
PA Est. No. 33967-NJ-1 (Lot No. Suffix 'Q5')

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**KEEP OUT OF REACH OF CHILDREN
CAUTION**

2.0 PRECAUTIONARY STATEMENTS

**2.1 HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION**

Causes moderate eye irritation. Harmful if absorbed through the skin. Prolonged or frequent skin contact may cause allergic reactions in some individuals. 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. Remove and wash contaminated clothing before reuse.

2.2 ENVIRONMENTAL HAZARDS

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

3.0 DIRECTIONS FOR USE

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

VectoMax[®] Water Soluble Pouches (WSP): Once the foil bag containing Water Soluble Pouches is opened, minimize exposure of WSP to humidity.

4.0 APPLICATION DIRECTIONS

MOSQUITO CONTROL

VectoMax WSP is a selective microbial insecticide for use against mosquito larvae in a variety of habitats. VectoMax WSP can be applied to areas that contain fish, other aquatic life, and plants. VectoMax WSP can be applied to areas used by or in contact with humans, pets, horses, livestock, birds or wildlife.

For control of mosquito larvae in the following sites:

Habitat	Rate Range	
Drainage/Drainage Systems¹:		
Catch basins and storm drains.	1 pouch/50 sq. ft.	
Treatment Areas (For Use In)²:		
Ponds	Retention, detention and seepage ponds	Abandoned swimming pools
Lagoons		
Hollow trees and tree holes	Animal waste lagoons	Unused swimming pools or spas
Urns	Flood water	Flooded basements
Rain barrels	Standing water	Pool covers
Livestock watering troughs/ponds/tanks	Storm water	Gutters and drains
Irrigation ditches	retention areas	Wheelbarrows
Roadside ditches	Birdbaths	Garbage cans and covers
Water gardens	Fountains	Discarded tires
Impounded wastewater associated with fruit and vegetable processing	Flowerpots and planters	
	Snowmelt pools	
	Septic tanks	

Any location where water accumulates and remains standing for periods of time, except treated, finished drinking water for human consumption.

¹ Treat on basis of surface area of potential mosquito breeding sites by placing one (1) VectoMax Water Soluble Pouch for up to 50 square feet of treatment area. Re-apply as needed (after 6-8 weeks under typical environmental conditions).

² Treat on basis of surface area of potential mosquito breeding sites by placing one (1) VectoMax Water Soluble Pouch for up to 50 square feet of treatment area. Re-apply as needed (after 1-4 weeks under typical environmental conditions).

1.0

FIRST AID

If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.

Longer periods of mosquito population suppression may result where sufficient numbers of non-target aquatic invertebrate parasites and predators are present since these are not affected by the product and contribute to mosquito population reduction.

5.0 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 Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or, dispose of the empty outer foil pouch in the trash as long as WSP is unbroken.

6.0 WARRANTY AND DISCLAIMER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with the accompanying directions.

VectoMax is a registered trademark of Valent BioSciences Corporation.

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 Skin Sensitizer – Cat 1A	2.7%
None	<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> , strain AM65-52	Irritating to Eyes – Cat 2B 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 ₂ O):	Not Determined
Specific Gravity:	Not Determined	Bulk Density:	32 +/- 3 lbs/cu ft.
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 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: LD₅₀ > 5,000 mg/kg (rat)

DERMAL TOXICITY: LD₅₀ > 2,000 mg/kg (rabbit)

INHALATION TOXICITY: LC₅₀ > 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: LC₅₀ >300 mg/L (96-H, Rainbow Trout)

Bird: LC₅₀ >3077 mg /kg (6.2 x 10¹¹ cfu/kg) (Acute Oral - Bobwhite Quail)

LC₅₀ >3077 mg /kg (6.2 x 10¹¹ cfu/kg) each day for 5 days (Sub-Acute Oral (dietary) - Bobwhite Quail)

Invertebrates: EC₅₀ >50 mg/L (48-H) (Daphnia)

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(Data for a Concentrated Bsp Technical Powder)

Fish: LC₅₀ >15.5 mg/L (96-H, Rainbow Trout)

Bird: LC₅₀ >9000 mg /kg (Acute Oral – Mallard)

Invertebrates: EC₅₀ >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.

(TM) = Registered Trademark of Valent BioSciences Corp.

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 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.