

**COUNTY OF MORRIS**  
**DEPARTMENT OF PUBLIC WORKS**  
**MOSQUITO CONTROL DIVISION**

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*Director, Mosquito  
Control Division*  
Kristian McMorland  
973-285-6450  
[kmcmorland@co.morris.nj.us](mailto:kmcmorland@co.morris.nj.us)

July 24, 2024

Dear School IPM Coordinator,

As per New Jersey Pesticide Control Regulations (N.J.A.C Title 7, Chapter 30), The Morris County Division of Mosquito Control is supplying you with the required information regarding any insecticides that we may use to control mosquitoes on school or Board of Education property.

Enclosed you will find SDS sheets and labels of our pesticides for your record.

Thank you in advance for your cooperation and please do not hesitate to contact us should you have any questions or concerns.

Sincerely,

Kristian J. McMorland  
Director



# VectoBac<sup>®</sup> G

BIOLOGICAL LARVICIDE

GRANULE

## ACTIVE INGREDIENT:

<i>Bacillus thuringiensis</i> , subspecies <i>israelensis</i> , strain AM 65-52, fermentation solids, spores, and insecticidal toxins	2.80%
OTHER INGREDIENTS	97.20%
TOTAL	100.00%

Potency: 200 International Toxic Units (ITU) per mg (Equivalent to 0.091 billion potency: ITU per pound)

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

EPA Reg. No. 73049-10  
EPA Est. No. 33762-IA-001

List No. 05108

## INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
  - 2.1 Hazard to Humans (and Domestic Animals)
  - 2.2 Environmental Hazards
- 3.0 Directions for Use
- 4.0 Application Directions
- 5.0 Storage and Disposal
- 6.0 Notice to User

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

1.0

### FIRST AID

#### If in Eyes

- Hold eyes 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 eyes.
- 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.

## 2.0 PRECAUTIONARY STATEMENTS

### 2.1 HAZARD TO HUMANS (AND DOMESTIC ANIMALS)

#### CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist 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.

### 2.2 ENVIRONMENTAL HAZARDS

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. 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.

## 4.0 APPLICATION DIRECTIONS

VectoBac G is an insecticide for use against mosquito larvae.

#### Mosquitoes Habitat

#### Suggested Range Rate\*

(Such as the following examples):

Irrigation ditches, roadside ditches, flood water, standing ponds, livestock watering ponds and troughs, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas, tidal water, salt marshes and rice fields

2.5 - 10 lbs. / acre

In addition, standing water containing mosquito larvae, in fields growing crops such as alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches, sugar cane and walnuts may be treated at the recommended rates.

\* Use 10-20 lbs. / acre when late 3rd and early 4th instar larvae predominate, mosquito populations are high, water is heavily polluted (sewage lagoons, animal waste lagoons), and/or algae are abundant.

Apply uniformly by aerial or ground conventional equipment. Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all of these factors when making decisions.

A 7 to 14 day interval between applications should be employed.

## 5.0 STORAGE AND DISPOSAL

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

**Storage:** Store in a cool [59-86°F (15-30°C)], dry place.

**Pesticide Disposal:** Completely empty bag into application equipment. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Disposal:** Nonrefillable container. Do not reuse or refill this container. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact Ag Container Recycling Council at 202-861-3144 or [www.acrecycle.org](http://www.acrecycle.org). If recycling is not available dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## 6.0 NOTICE TO USER

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 accompanying directions.

VectoBac is a registered trademark of  
Valent BioSciences Corporation.



## SAFETY DATA SHEET

1 of 11

### VectoBac® G Biological Larvicide Granules

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[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:** VectoBac® G Biological Larvicide Granules

**Synonyms:** VectoBac® GS

**EPA Reg No.:** 73049-10

**Code Number:** N/A

**List Number:** 05103; 05108

**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 LLC  
1910 Innovation Way, Suite 100  
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)**

Symbols not required

**Signal Word**

WARNING

**Hazard Statement(s)**

Causes Eye Irritation



## SAFETY DATA SHEET

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### VectoBac® G Biological Larvicide Granules

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#### 2.3 Precautionary Statement:

##### Prevention

Wash hands and face thoroughly after handling  
Wear protective clothing, eye protection and gloves

##### 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	Percent
None	<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> , strain AM65-52	2.8
Trade Secret	Other ingredients	97.2

### 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.

## VectoBac® G Biological Larvicide Granules

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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 and skin irritation

**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**

Hazardous compounds, such as carbon oxides, nitrogen oxides

**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.



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### VectoBac® G Biological Larvicide Granules

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## **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.

### **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 cool, dry place.

#### **Incompatibilities**

None Known

### **7.3 Specific End Use(s)**

Pesticide, biological mosquito larvicide





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### VectoBac® G Biological Larvicide Granules

SDS# VBC-0020 Revision 5

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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.

#### 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:

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:	Light Brown granular solid	Odor Threshold:	Musty - Characteristic
pH:	5.4 (10% dispersion in water)	Boiling Point:	Not applicable
Melting Point:	Not Applicable	Solubility (H <sub>2</sub> O):	Suspends and partially soluble
Specific Gravity:	Not Determined	Bulk Density:	0.48 g/mg
Octanol/H <sub>2</sub> O Coeff:	Not Applicable	Evaporation Rate:	Not Applicable
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 Applicable	Vapor Pressure:	Not Applicable

## VectoBac® G Biological Larvicide Granules

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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****LIKELY ROUTES OF EXPOSURE**

Eye Contact: Yes

Skin Contact: Yes

Ingestion: No

Inhalation: No

**ACUTE EFFECTS** Product Toxicology Studies (Data for Technical, unless noted)ORAL TOXICITY: LD<sub>50</sub> > 5,000 mg/kg (rat)DERMAL TOXICITY: LD<sub>50</sub> > 5,000 mg/kg (rabbit)INHALATION TOXICITY: LC<sub>50</sub> > 2.84 mg/L air (maximum feasible concentration)

CORROSIVENESS: Not corrosive.

DERMAL IRRITATION: Mildly or slightly irritating

OCULAR IRRITATION: Slightly irritating

DERMAL SENSITIZATION: (For Formulated Product) Not a sensitizer (guinea pig)

**VectoBac® G Biological Larvicide Granules****SDS# VBC-0020 Revision 5****ISSUED 01/03/20**

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

**MUTAGENICITY INFORMATION:** Components of this product are not expected 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:** Slight Eye or skin 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: LC<sub>50</sub> >370 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: LC<sub>50</sub> >50 mg/L (48-H) (Daphnia)

Bees: Essentially non-toxic to honey bees.

**12.2 Persistence and Degradability**

No data available

**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.



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VectoBac® G Biological Larvicide Granules

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### 14. TRANSPORTATION INFORMATION

DOT STATUS: Not regulated 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

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: 73049-10

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.



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VectoBac® G Biological Larvicide Granules

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**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling. Mixers/loaders and applicators 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 contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

### STORAGE AND DISPOSAL

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

**Storage:** Store in cool [59-86°F (15-30°C)], dry place.

**Pesticide Disposal:** Completely empty bag into application equipment. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Disposal:** Nonrefillable container. Do not reuse or refill this container. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact Ag Container Recycling Council at 202-861-3144 or [www.acrecycle.org](http://www.acrecycle.org). If recycling is not available dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.



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### VectoBac® G Biological Larvicide Granules

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### 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: Address Change

APPROVAL DATE: 01/03/20

SUPERSEDES DATE: 05/22/18

LEGEND: N/A = Not Applicable

N/L = Not Listed

C = Ceiling

(R) = Registered Trademark of Valent BioSciences LLC

(TM) = Registered Trademark of Valent BioSciences LLC

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 LLC 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 LLC 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 LLC to confirm that you have the most current product label and SDS.



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### VectoBac® G Biological Larvicide Granules

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ISSUED 01/03/20

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

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.



1910 Innovation Way, Suite 100  
Libertyville, IL 60048 – 800-323-9597

© Valent BioSciences LLC, 2020

# VectoBac<sup>®</sup> GS

BIOLOGICAL LARVICIDE

GRANULE

## ACTIVE INGREDIENT:

*Bacillus thuringiensis*, subspecies *israelensis*, strain AM 65-52, fermentation solids, spores, and insecticidal toxins ..... 2.80%  
OTHER INGREDIENTS ..... 97.20%  
TOTAL ..... 100.00%

Potency: 200 International Toxic Units (ITU) per mg  
(Equivalent to 0.091 billion potency: ITU per pound)

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

EPA Reg. No. 73049-10

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**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

1.0

FIRST AID	
If in Eyes	<ul style="list-style-type: none"><li>• Hold eyes open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
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.	

## 2.0 PRECAUTIONARY STATEMENTS

### 2.1 HAZARD TO HUMANS (AND DOMESTIC ANIMALS)

#### CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

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### 2.2 ENVIRONMENTAL HAZARDS

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. 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.

### 4.0 APPLICATION DIRECTIONS

VectoBac GS is an insecticide for use against mosquito larvae.

#### Mosquitoes

##### Habitat

#### Suggested Range Rate\*

(Such as the following examples):

Irrigation ditches, roadside ditches, flood water, standing ponds, livestock watering ponds and troughs, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas, tidal water, salt marshes and rice fields

2.5 - 10 lbs. / acre

In addition, standing water containing mosquito larvae, in fields growing crops such as alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches, sugar cane and walnuts may be treated at the recommended rates.

\* Use 10-20 lbs. / acre when late 3rd and early 4th instar larvae predominate, mosquito populations are high, water is heavily polluted (sewage lagoons, animal waste lagoons), and/or algae are abundant.

Apply uniformly by aerial or ground conventional equipment. Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all of these factors when making decisions.

A 7 to 14 day interval between applications should be employed.



## 5.0 STORAGE AND DISPOSAL

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**Storage:** Store in a cool [59-86°F (15-30°C)], dry place.

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## 6.0 NOTICE TO USER

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 accompanying directions.

VectoBac is a registered trademark of  
Valent BioSciences Corporation.



## SAFETY DATA SHEET

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### VectoBac® G Biological Larvicide Granules

SDS# VBC-0020 Revision 5

ISSUED 01/03/20

[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:** VectoBac® G Biological Larvicide Granules

**Synonyms:** VectoBac® GS

**EPA Reg No.:** 73049-10

**Code Number:** N/A

**List Number:** 05103; 05108

**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 LLC  
1910 Innovation Way, Suite 100  
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)**

Symbols not required

**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  
Wear protective clothing, eye protection and gloves

**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	Percent
None	<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> , strain AM65-52	2.8
Trade Secret	Other ingredients	97.2

**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 and skin irritation

**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**

Hazardous compounds, such as carbon oxides, nitrogen oxides

**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.

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**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.

**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 cool, dry place.

**Incompatibilities**

None Known

**7.3 Specific End Use(s)**

Pesticide, biological mosquito larvicide

**VectoBac® G Biological Larvicide Granules**

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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.

**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:**

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:	Light Brown granular solid	Odor Threshold:	Musty - Characteristic
pH:	5.4 (10% dispersion in water)	Boiling Point:	Not applicable
Melting Point:	Not Applicable	Solubility (H <sub>2</sub> O):	Suspends and partially soluble
Specific Gravity:	Not Determined	Bulk Density:	0.48 g/mg
Octanol/H <sub>2</sub> O Coeff:	Not Applicable	Evaporation Rate:	Not Applicable
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 Applicable	Vapor Pressure:	Not Applicable

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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**

## LIKELY ROUTES OF EXPOSURE

Eye Contact: Yes

Skin Contact: Yes

Ingestion: No

Inhalation: No

ACUTE EFFECTS Product Toxicology Studies (Data for Technical, unless noted)ORAL TOXICITY: LD<sub>50</sub> > 5,000 mg/kg (rat)DERMAL TOXICITY: LD<sub>50</sub> > 5,000 mg/kg (rabbit)INHALATION TOXICITY: LC<sub>50</sub> > 2.84 mg/L air (maximum feasible concentration)

CORROSIVENESS: Not corrosive.

DERMAL IRRITATION: Mildly or slightly irritating

OCULAR IRRITATION: Slightly irritating

DERMAL SENSITIZATION: (For Formulated Product) Not a sensitizer (guinea pig)

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MUTAGENICITY INFORMATION: Components of this product are not expected 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: Slight Eye or skin 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: LC<sub>50</sub> >370 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: LC<sub>50</sub> >50 mg/L (48-H) (Daphnia)

Bees: Essentially non-toxic to honey bees.

**12.2 Persistence and Degradability**

No data available

**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.



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**14. TRANSPORTATION INFORMATION**

DOT STATUS: Not regulated by US DOT  
UN PROPER SHIPPING NAME: N/A  
REMARKS: N/A

IATA/ICAO 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

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: 73049-10

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.

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**KEEP OUT OF REACH OF CHILDREN****CAUTION****PRECAUTIONARY STATEMENTS****HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling. Mixers/loaders and applicators 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 contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

**STORAGE AND DISPOSAL**

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

**Storage:** Store in cool [59-86°F (15-30°C)], dry place.

**Pesticide Disposal:** Completely empty bag into application equipment. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Disposal:** Nonrefillable container. Do not reuse or refill this container.

Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact Ag Container Recycling Council at 202-861-3144 or [www.acrecycle.org](http://www.acrecycle.org). If recycling is not available dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.



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### 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: Address Change

APPROVAL DATE: 01/03/20

SUPERSEDES DATE: 05/22/18

LEGEND: N/A = Not Applicable

N/L = Not Listed

C = Ceiling

(R) = Registered Trademark of Valent BioSciences LLC

(TM) = Registered Trademark of Valent BioSciences LLC

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 LLC 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 LLC 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 LLC to confirm that you have the most current product label and SDS.



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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.



1910 Innovation Way, Suite 100  
Libertyville, IL 60048 – 800-323-9597

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# NATULAR<sup>®</sup> XRT

## Mosquito Larvicide / Extended Release Tablet

Controls larvae of mosquitoes which may carry Dengue, Chikungunya, and Zika.

To be used in governmental mosquito control programs, by professional pest control operators, or in other mosquito or midge control operations.

### Active Ingredient (dry weight basis):

Spinosad (a mixture of spinosyn A and spinosyn D)	6.25%
Other Ingredients	93.75%
Total	100.00%

U.S. Patent No. 5,362,634 and 5,496,931

Natular XRT is a 6.25% tablet. This product may absorb moisture; therefore, the weight of the tablet and percent by weight of active ingredient will vary with hydration.

SPINOSAD

GROUP

5

INSECTICIDE

### KEEP OUT OF REACH OF CHILDREN

For medical treatment information or emergency: Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.

### PRECAUTIONARY STATEMENTS

#### Environmental Hazards

This product is toxic to aquatic organisms. Non-target aquatic invertebrates may be killed in waters where this pesticide is used. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

#### DIRECTIONS FOR USE

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

Read all Directions for Use carefully before applying.

#### Product Information

Natular XRT is a product for killing mosquito and midge larvae. This product's active ingredient, spinosad, is biologically derived from the fermentation of *Saccharopolyspora spinosa*, a naturally occurring soil organism. Natular XRT tablets release effective levels of spinosad over a period up to 180 days in mosquito breeding sites. The tablet is designed for easy application to catch basins.

Release of spinosad is affected by the dissolution of the Natular XRT tablet. If tablets become covered by obstructions such as debris, vegetation, or loose sediment as a result of high rainfall or flow, normal dispersion of the active ingredient can be inhibited. Water flow may increase the dissolution of the tablet, thus reducing the residual life of the tablet. Inspect areas of water flow to determine appropriate re-treatment intervals. To assure positive results, place Natular XRT tablets where they will not be swept away by flushing action.

#### Use Precautions

#### Integrated Pest Management (IPM) Programs

Natular XRT is intended to kill mosquito and midge larvae. Mosquitoes are best controlled when an IPM program is followed. Larval control efforts should be managed through habitat mapping, active adult and larval surveillance, and integrated with other control strategies such as source reduction, public education programs, harborage or barrier adult mosquito control applications, and targeted adulticide applications.

#### Insecticide Resistance Management (IRM)

Natular XRT contains a Group 5 insecticide. Insect biotypes with acquired resistance to Group 5 insecticides may eventually dominate the insect population if appropriate resistance management strategies are not followed. Currently, only spinetoram and spinosad active ingredients are classified as Group 5 insecticides. Resistance to other insecticides is not likely to impact the effectiveness of this product. Spinosad may be used in rotation with all other labeled products in a comprehensive IRM program.

To minimize the potential for resistance development, the following practices are recommended:

- Base insecticide use on comprehensive IPM and IRM programs.
- Do not use less than the labeled rates.
- Routinely evaluate applications for loss of effectiveness.
- Rotate with other labeled effective mosquito larvicides that have a different mode of action.
- In dormant rice fields, standing water within agricultural/crop sites, and permanent marine and freshwater sites, do not make more than 3 applications per year.
- Use insecticides with a different mode of action (different insecticide group) on adult mosquitoes so that both larvae and adults are not exposed to products with the same mode of action.

Contact your local extension specialist, technical advisor, and/or Clarke representative for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.

- For further information or to report suspected resistance, you may contact your local Clarke representative by calling 800-323-5727.

#### APPLICATION

Proper application techniques help ensure adequate coverage and correct dosage necessary to obtain optimum kill of mosquito and midge larvae. Natular XRT tablets can be applied prior to flooding, on snow and ice in breeding sites prior to spring thaw, or at any time after flooding in listed sites. Under normal conditions, one application will last the entire mosquito season, or up to 180 days, whichever is shorter. Natular XRT tablets will be unaffected in dry down situations and will begin working again during subsequent wetting events until the tablet is exhausted. Note: Natular XRT has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

#### Application Sites and Rates

Natular XRT tablets are designed to kill mosquitoes in natural and manmade depressions that hold water. Do not apply to water intended for irrigation. Examples of application sites are:

Storm water drainage areas, sewers and catch basins, woodland pools, snow pools, roadside ditches, retention ponds, freshwater dredge spoils, tire tracks, rock holes, pot holes and similar areas subject to holding water.

Natural and manmade aquatic sites, fish ponds, ornamental ponds and fountains, other artificial water-holding containers, flooded crypts, transformer vaults, abandoned swimming pools, construction and other natural or man-made depressions.

Stream eddies, creek edges, detention ponds.





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**NATULAR® XRT**

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Marine Pollutant: Yes

**14.3 ICAO/IATA (Air transport)**

UN Number: 3077

Hazard Class: 9

Packing Group: III

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S. (Spinosad)

Environmental Hazard: Yes

## SECTION 15. Regulatory Information

**FIFRA Information:** This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Keep Out of Reach of Children

For medical treatment information or emergency: Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.

### Precautionary Statements

#### Environmental Hazards

This product is toxic to aquatic organisms. Non-target aquatic invertebrates may be killed in waters where this pesticide is used. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

### Other Federal Regulations

#### SARA TITLE III CLASSIFICATION

Section 302: None

Section 311/312: Immediate (acute) hazard

Section 313: None

CERCLA RQ: None

OSHA HAZARD COMMUNICATION STANDARD: This product is not considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**U.S. California Proposition 65:** Not listed

STATE RIGHT-TO-KNOW: National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

## SECTION 16. Other Information

**DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared as is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

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End of document







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Explosive Properties: Not Available

Oxidizing Properties: Not Available

## SECTION 10. Stability and Reactivity

### 10.1 Reactivity

Not Available

### 10.2 Chemical Stability

Stable under normal conditions

### 10.3 Possibility of Hazardous Reactions

Hazardous Reactions: None under normal conditions

Hazardous Polymerization: Not known to occur

### 10.4 Conditions to Avoid

Protect from direct sunlight and excessive heat.

### 10.5 Incompatible Materials

Avoid contact with strong oxidizing agents, strong acids, strong bases

### 10.6 Hazardous Decomposition Products

None known under normal conditions of storage and use

## SECTION 11. Toxicological Information

### 11.1 Information on Likely Routes of Exposure

Eye Contact: This product may release nuisance dust in handling or use. Dust may cause slight transient (temporary) eye irritation.

### 11.2 Information on Toxicological Effects

#### Acute Toxicity/Effects\*

\*Some acute toxicity values are not available for Natular® XRT. Presented values are based on toxicity values of a product of similar composition and form.

Oral, Rat LD<sub>50</sub>: > 5,050 mg/kg-bw

Dermal, Rat LD<sub>50</sub>: > 2,000 mg/kg-bw

Inhalation, Rat LC<sub>50</sub>: > 5.0 g/m<sup>3</sup>

Skin Corrosion/Irritation: Not a skin irritant

Serious Eye Damage/Irritation: Not an eye irritant

Skin Sensitization: Not a skin sensitizer

STOT – Single exposure: No data is available to indicate product or any components present at greater than 0.1% present a specific target organ toxicity hazard from single exposure.

#### Chronic Toxicity/Effects

##### Germ Cell Mutagenicity

This product has not been tested. No data is available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. Spinosad is not mutagenic.





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**Eye Contact:** Hold eye open and rinse slowly and gently with warm water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes then continue rinsing. Call a poison control center/doctor for treatment advice.

## 4.2 Most Important Symptoms and Effects, Both Acute and Delayed.

**Eye Contact:** This product may release nuisance dust in handling or use. Dust may cause slight transient (temporary) eye irritation.

## 4.3 Indication of Immediate Medical Attention and Special Treatment

**Treatment:** Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. For medical treatment information, contact the poison control hotline at 1-800-214-7753. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

## SECTION 5. Fire-Fighting Measures

### 5.1 Extinguishing Media

**Suitable Extinguishing Media:** Water Fog, Carbon Dioxide (CO<sub>2</sub>), Dry Chemical, Foam

**Unsuitable Extinguishing Media:** None known

### 5.2 Special Hazards Arising From the Substance or Mixture

**Specific Hazards:** Under fire conditions some components may decompose. Combustion products may include CO and NOx.

### 5.3 Special Protective Equipment and Precautions for Fire-Fighters

**Protection Against Fire:** Wear positive pressure, self-contained breathing apparatus and protective firefighting clothing (includes fire-fighting helmet, coat, pants, boots, and gloves).

**Special Procedures:** Fight fires from a protected location. Dike fire control water for later disposal. Keep container cool by spraying with water.

## SECTION 6. Accidental Release Measures

### 6.1 Personal Precautions, Protective Equipment and Emergency Procedures

**General Precautions:** Use appropriate protection (see section 8)

**Environmental Precautions:** Prevent product from entering into drains and waterways. Collect and dispose of this material and its container in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities. See Section 12 for additional ecological information.

### 6.2 Methods and Material for Containment and Cleaning Up

**Clean Up Methods:** Collect all material with shovel, other instrument, or by hand while using appropriate personal protection equipment, and place in closable marked containers.

## SECTION 7. Handling and Storage

### 7.1 Precautions for Safe Handling

**Handling:** Keep out of reach of children. Do not take internally. Avoid contact with skin and eyes.

**Hygiene Measures:** Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

### 7.2 Conditions for Safe Storage, Including Any Incompatibilities



PRECAUTIONARY STATEMENTS

CAUTION

irritant if swallowed. Avoid contact with eyes, skin and clothing. Wear goggles and chemical-resistant gloves. Avoid breathing spray, mists or vapors. Wash hands after using. Avoid contamination of food or food stuffs.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

The materials that are chemical-resistant to this product are barrier laminate, nitrile rubber, synthetic rubber, and Viton. If you want more options, follow the instructions for category E on EPA chemical-resistance selection chart.

Wear, loaders, applicators, flaggers, and other handlers must wear:

- Long-sleeved shirt and long pants,
- Shoes plus socks, and
- Chemical-resistant gloves.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for stainables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Carefully clean and dry other absorbent materials that have been drenched or heavily contaminated by this product's concentrate. Do not reuse them.

ENGINEERING CONTROLS

Users must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides (40 CFR 170.240(c)(6)).

USER SAFETY RECOMMENDATIONS

- Users should:
- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE if pesticide gets inside. Then, wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing them. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, except as directed for use on this label. Aquatic organisms may be killed in waters where this product is used. Consult the State agency, with primary responsibility for regulating pesticides, before applying to public waters to determine if a permit is needed. Do not contaminate water when disposing of equipment washwater or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

PHYSICAL AND CHEMICAL HAZARDS

NOT store, use, pour or spill near flames or excessive heat. In case of fire, use water spray, foam, CO<sub>2</sub>, or dry chemical.

TERMS

The extent consistent with applicable laws, the seller's guarantee is limited to the terms on the label. The buyer accepts the product on these conditions. Timing and method of applications, application conditions, weather, and mixtures with chemicals in the use of this product are beyond the control of the seller.

STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a cool, dry, locked area out of the reach of children. Do not store near excessive heat or open flame.

**PESTICIDE DISPOSAL:** Pesticide or pesticide waste rinse solution that cannot be used according to the label, must be disposed of according to applicable Federal, State, or local procedures or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** 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 the mix tank. Fill the container ¾ 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 the mix tank or store rinsate for later disposal. Repeat this procedure two more times. Then offer for recycling, if available. If recycling is not available, puncture container and dispose of it in a sanitary landfill or by other approved State and local procedures.

BVA 2 MOSQUITO LARVICIDE OIL

ACTIVE INGREDIENT:

Mineral Oil*	97%
Other Ingredients	3%
Total	100%

\*Contains petroleum distillate

DIRECTIONS FOR USE (continued)

BVA 2 Mosquito Larvicide does not depend on life-cycle time for effectiveness. As it kills by suffocation, mosquitoes do not develop resistance. When applied as directed this product does not leave a dark oily film.

SPRAY DRIFT MANAGEMENT

A variety of factors (e.g., wind direction, wind speed, temperature, and relative humidity) and method of application (e.g., handgun, handwand, ground or aerial) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Wind Speed: Do not apply at wind speeds greater than 15 mph at the application site.

Temperature Inversions: If applying at wind speeds less than 3 mph, the applicator must determine if:

- a) conditions of temperature inversion exist, or
- b) stable atmospheric conditions exist at or below nozzle height.

Do not make applications into areas of temperature inversions or stable atmospheric conditions.

Droplet Size: Apply as a medium or coarser spray (ASABE standard 572), and the minimum volume mean diameter (VMD) for spinning atomizer nozzles.

Ground Spray (Handgun or Handwand) Applications  
Ground applications must be in compliance with the specifications indicated above regarding Wind Speed, Temperature Inversions, and Droplet Size.  
Apply using a nozzle height of no more than 4 feet above the ground, water surface, or crop canopy.

Aerial Applications  
Aerial applications must be in compliance with the specifications indicated above regarding Wind Speed, Temperature Inversions, and Droplet Size.

Release Height: Do not release spray at a height greater than 10 feet above the ground, water surface, or the tops of plants that are to be sprayed.

Boom Length: The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Swath Adjustment: When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind. Leave at least one untreated swath at the downwind edge of the treated field.

TREATMENT RATES

Apply this product at rates of 1 to 5 gallons per acre (3 to 15 fl. oz. per 1000 sq. ft.) depending on water surface conditions and vegetative density. Use 1 to 2½ gallons per acre (3 to 7½ fl. oz. per 1000 sq. ft.) if trees are in green tip stage, vegetative cover is light and water is essentially clean.

To penetrate heavier or denser vegetative cover, or if water is substantially polluted, use 2½ to 5 gallons per acre (7½ to 15 fl. oz. per 1000 sq. ft.).

An average rate of 2½ to 3 gallons per acre (approximately 1 quart per 5000 sq. ft. [50x100' areal]), 7½ to 9 fl. oz. per 1000 sq. ft. or 2-4 teaspoons per 100 sq. ft. (10x10' areal) of water surface covers most conditions.

BVA Oils (a division of B-V Associates, Inc.)

29222 Trident Industrial Blvd.  
New Hudson, MI 48165  
800.231.3376  
www.bvaoils.com  
REV042913





## Safety Data Sheet

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**BVA LARV 2**  
EPA # 70589-1

### 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

**Product Identity**

BVA LARV 2

**Alternate Names**

BVA 2 Larvicide, L2

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

**Intended use**

Mosquito Larvicide Oil

**Application Method**

See EPA Label

#### 1.3. Details of the supplier of the safety data sheet

**Company Name**

BVA  
29222 Trident Industrial Blvd  
Wixom, MI. 48165

**Emergency**

**CHEMTREC (USA)**

(800) 424-9300

**24 hour Emergency Telephone No.**

(800) 424-9300 (CHEMTREC)  
+1 202-366-4488 (outside the USA).

**Customer Service:**

+1 248-348-4920

### 2. Hazard identification of the product

#### 2.1. Classification of the substance or mixture

Asp. Tox. 1;H304

May be fatal if swallowed and enters airways.

#### 2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



**Danger**

H304 May be fatal if swallowed and enters airways.



## Safety Data Sheet

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**BVA LARV 2**  
**EPA # 70589-1**

### [Prevention]:

No GHS prevention statements

### [Response]:

P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.

P331 Do NOT induce vomiting.

### [Storage]:

P405 Store locked up.

### [Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

## 3. Composition/information on ingredients

There are no ingredients in this product which are classified as hazardous.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
The base oil may be a mixture of the Following:  1) Hydrotreated Distillate, Heavy Paraffin CAS Number 64742-54-7 2) Hydrotreated Distillate, Light Paraffin CAS Number: 64742-55-8 3) White Mineral Oil: CAS Number: 8042-47-5 4) Hydrotreated Neutral Oil CAS Number: 72623-87-1	97%	Not Classified	[1]

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

\*The full texts of the phrases are shown in Section 16.

## 4. First aid measures

### 4.1. Description of first aid measures

#### General

In all cases of doubt, or when symptoms persist, seek medical attention.  
Never give anything by mouth to an unconscious person.

#### Inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.





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**BVA LARV 2**  
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<b>Eyes</b>	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
<b>Skin</b>	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
<b>Ingestion</b>	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

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

<b>Overview</b>	No specific symptom data available. See section 2 for further details.
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## 5. Fire-fighting measures

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### 5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO<sub>2</sub>, powder, water spray.  
Do not use; water jet.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

### 5.3. Advice for fire-fighters

Cool closed containers exposed to fire by spraying them with water. Do not allow run off water and contaminants from fire fighting to enter drains or water ways.

**ERG Guide No.** ----

---

## 6. Accidental release measures

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### 6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

### 6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

### 6.3. Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, vermiculite. Place in



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**BVA LARV 2**  
**EPA # 70589-1**

closed containers outside buildings and dispose of according to the Waste Regulations. (See section 13).

Clean, preferably with a detergent. Do not use solvents.

Do not allow spills to enter drains or watercourses.

If drains, sewers, streams or lakes are contaminated, inform the local water company immediately. In the case of contamination of rivers, streams or lakes the Environmental Protection Agency should also be informed.

### 7. Handling and storage

#### 7.1. Precautions for safe handling

See section 2 for further details. - [Prevention]:

#### 7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: No data available.

See section 2 for further details. - [Storage]:

#### 7.3. Specific end use(s)

No data available.

### 8. Exposure controls and personal protection

There are no ingredients in this product which are classified as hazardous. Please refer to BVA LARV 2 label for EPA guidelines regarding Personal Protective Equipment and what to wear during application.

#### 8.2. Exposure controls

##### Respiratory

If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

##### Eyes

Protective safety glasses recommended.

##### Skin

Wear overalls to keep skin contact to a minimum.

##### Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable



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**BVA LARV 2**  
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respiratory protection must be worn.

### Other Work Practices

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

## 9. Physical and chemical properties

<b>Appearance</b>	Colorless Liquid
<b>Odor</b>	Slight petroleum odor
<b>Odor threshold</b>	Not Measured
<b>pH</b>	Not Measured
<b>Melting point / freezing point</b>	Not Measured
<b>Initial boiling point and boiling range</b>	>251 °C (484°F)
<b>Flash Point</b>	>145°C (292°F)
<b>Evaporation rate (Ether = 1)</b>	Not Measured
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Upper/lower flammability or explosive limits</b>	<b>Lower Explosive Limit:</b> Not Measured <b>Upper Explosive Limit:</b> Not Measured
<b>Vapor pressure (Pa)</b>	< 0.13 kPa (1 mmHg) at 20°C
<b>Vapor Density</b>	Not Measured
<b>Specific Gravity</b>	Not Measured
<b>Solubility in Water</b>	Not Soluble
<b>Partition coefficient n-octanol/water (Log Kow)</b>	Not Measured
<b>Auto-ignition temperature</b>	Not Measured
<b>Decomposition temperature</b>	Not Measured
<b>Viscosity (cSt) @ 40 °C</b>	9
<b>Density @20°C (g/cm3)</b>	0.84 - 0.87
<b>Pour Point</b>	<-12°C (10°F)

### 9.2. Other information

No other relevant information.

**BVA LARV 2**  
EPA # 70589-1**10. Stability and reactivity****10.1. Reactivity**

Hazardous Polymerization will not occur.

**10.2. Chemical stability**

Stable under normal circumstances.

**10.3. Possibility of hazardous reactions**

No data available.

**10.4. Conditions to avoid**

No data available.

**10.5. Incompatible materials**

No data available.

**10.6. Hazardous decomposition products**

No hazardous decomposition data available.

**11. Toxicological information****Acute toxicity**

There are no ingredients in this product which are classified as hazardous.

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable



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Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

## 12. Ecological information

### 12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

### Aquatic Ecotoxicity

There are no ingredients in this product which are classified as hazardous.

### 12.2. Persistence and degradability

There is no data available on the preparation itself.

### 12.3. Bioaccumulative potential

Not Measured

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

### 12.6. Other adverse effects

No data available.

## 13. Disposal considerations

### 13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.



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### 14. Transport information

	<b>DOT (Domestic Surface Transportation)</b>	<b>IMO / IMDG (Ocean Transportation)</b>	<b>ICAO/IATA</b>
<b>14.1. UN number</b>	Not Applicable	Not Regulated	Not Regulated
<b>14.2. UN proper shipping name</b>	Not Regulated	Not Regulated	Not Regulated
<b>14.3. Transport hazard class(es)</b>	<b>DOT Hazard Class:</b> Not Applicable	<b>IMDG:</b> Not Applicable <b>Sub Class:</b> Not Applicable	<b>Air Class:</b> Not Applicable
<b>14.4. Packing group</b>	Not Applicable	Not Applicable	Not Applicable
<b>14.5. Environmental hazards</b>			
<b>IMDG</b>	Marine Pollutant: No		
<b>14.6. Special precautions for user</b>	No further information		

### 15. Regulatory information

#### Regulatory Overview

The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented. All components of this material are either listed or exempt from listing on the TSCA Inventory.

#### WHMIS Classification

Not Regulated

#### US EPA Tier II Hazards

Fire: No

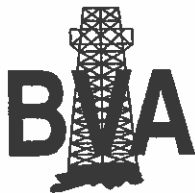
Sudden Release of No Pressure:

Reactive: No

Immediate (Acute): No

Delayed (Chronic): No

**EPCRA 311/312 Chemicals and RQs:**  
(No Product Ingredients Listed)



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**BVA LARV 2**  
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**EPCRA 302 Extremely Hazardous :**

(No Product Ingredients Listed)

**EPCRA 313 Toxic Chemicals:**

(No Product Ingredients Listed)

**Proposition 65 - Carcinogens (>0.0%):**

(No Product Ingredients Listed)

**Proposition 65 - Developmental Toxins (>0.0%):**

(No Product Ingredients Listed)

**Proposition 65 - Female Repro Toxins (>0.0%):**

(No Product Ingredients Listed)

**Proposition 65 - Male Repro Toxins (>0.0%):**

(No Product Ingredients Listed)

**N.J. RTK Substances (>1%) :**

<u>Chemical name</u>	<u>CAS#</u>	<u>New Jersey TS Number</u>
White Mineral Oil	8042-47-5	
Hydrotreated Distillate, Heavy Paraffin	64742-54-7	
Hydrotreated Distillate, Light Paraffin	64742-55-8	
Hydrotreated Neutral Oil	72623-87-1	

**Penn RTK Substances (>1%) :** (No Product Ingredients Listed)

---

### 16. Other information

---

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

Not Applicable

Version 2 – Updated

Section 1

Application Method See EPA Label

Section 8

There are no ingredients in this product which are classified as hazardous. Please refer to BVA LARV 2 label for EPA guidelines regarding Personal Protective Equipment and what to wear during application.



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**BVA LARV 2**  
**EPA # 70589-1**

The information and recommendations contained herein are, to the best of our knowledge and belief, accurate and reliable as of the date issued. You can contact us to ensure that this document is the most current available. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to ensure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, republication or retransmission of this document, in whole or in part, is not permitted.

End of Document





# COCOBEAR™

## Mosquito Larvicide Oil

Kills larvae and pupa stages of mosquitoes. Physical control of mosquito broods: kills by suffocation - mosquitoes do not develop resistance. Prevents mosquito emergence.

Standing water treatment. Use on: ponds, pools, ditches, standing water within irrigated croplands and pastures, flood waters, and other listed areas where mosquitoes develop.

### ACTIVE INGREDIENT

Mineral Oil*	10.0%
OTHER INGREDIENTS	90.0%
TOTAL	100.0%

\* Contains petroleum distillate

## KEEP OUT OF REACH OF CHILDREN CAUTION

### FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.

IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice. DO NOT induce vomiting unless told to do so by a poison control center or doctor. Do not give ANY liquid to the person. Do not give anything by mouth to an unconscious person.
---------------	--

**NOTICE TO PHYSICIANS:** This product contains petroleum distillate and may pose an aspiration pneumonia hazard.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS & DOMESTIC ANIMALS

**CAUTION.** Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

**Personal Protective Equipment (PPE):** Mixers, loaders, applicators, and other handlers must wear long-sleeved shirt and long pants, and shoes plus socks.

**User Safety Requirements:** Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

**User Safety Recommendations:** Users should wash hands before eating, drinking, chewing gum, tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

Do not apply directly to water, except as directed for use on this label. Aquatic organisms may be killed in waters where this pesticide is used. Consult with the State or tribal agency with primary authority for regulating pesticides before applying this product to public waters to determine if a permit is needed.

### DIRECTIONS FOR USE

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

This product may cause injury to plants in the treatment area. Stressed plants may be more susceptible.

COCOBEAR may only be used to control mosquito larvae and pupae. COCUBEAR leaves a thin film on the surface of treated, non-flowing water and kills mosquito larvae and pupae by suffocation. COCUBEAR kills immature mosquitoes where they develop.

This product may be used for surface applications to standing water within irrigated croplands and pastures, drainage areas, ditches, stagnant pools, swamps, marshes, temporary rain pools, sloughs, log ponds, open sewage basins, settling ponds, catch basins, waste tires and intermittently flooded areas.

Apply at uniform rates of 3 gallons per surface acre (for smaller areas, treat at 10 ounces per 1,000 sq. ft. or 1 1/2 quart per 5,000 sq. ft.). Where there is extremely dense vegetation or if the water to be treated is high in organic content, up to 5 gallons per acre (15 ounces per 1,000 sq. ft. or 2 quarts per 5,000 sq. ft.) may be used.

When applying by aerial application, adjust spray volume up to 5 gallons per acre dependent on vegetation and surface conditions. 3 gallons per acre (36 gallons per 100 ft swath mile) is likely to be sufficient for most conditions.

### Spray Drift Management

A variety of factors including weather conditions (e.g. wind direction, wind speed, temperature, and relative humidity) and method of application (e.g. ground, aerial) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

**Wind Speed:** Do not apply this product at wind speeds greater than 15 mph at the application site.

**Droplet Size:** Apply as a medium or coarser spray (ASABE Standard

572), and the minimum mean volume diameter (VMD) for spinning atomizer nozzles.

**Temperature Inversions:** Application is allowed under stable and/or temperature inversion conditions as long as application is done below the point in the atmosphere where the inversion begins and the droplet size meets the dimensions of very coarse or extremely coarse as defined in ASABE Standard 572 (VMD of 400-500 microns).

**Release Height for Ground Applications:** Apply using a nozzle height of no more than 4 feet above the surface.

**Aerial Applications:** Applications must conform to the requirements indicated above regarding wind speed, droplet size, and

temperature inversions and to the additional requirements listed below.

**Release Height:** Aircraft altitude should be maintained at the lowest altitude necessary for aircraft safety in order to reduce the exposure of droplets to evaporation and wind.

**Boom Length:** The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. Nozzle placement may be extended to 100% of rotor blade diameter when very coarse droplets of VMD 400-500 microns (ASABE Standard 572) are used. Orient nozzles to spray backward and parallel to the air stream.

**Swath Adjustment:** When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the upwind and downwind edges of the application area by adjusting the path of the aircraft upwind.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store upright at room temperature. In case of spill or leakage, soak up with absorbent material such as sand, sawdust, earth, fuller's earth, etc.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

### CONTAINER DISPOSAL:

(REFILLABLE DRUMS & TOTES): Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning the container before refilling is the responsibility of the refiller. To clean the container before disposal, drain the container until it is empty. Add a minimum amount of clean water to allow recirculation through the pump, meter and hoses. A commercial tank-cleaning detergent may be used, if desired. Thoroughly drench the interior sides, ceiling, and floor of the container. Using a steam-cleaning process or a high-pressure/low-water process, clean sides, ceiling, and floor of container. Recirculate wash water through the pump, meter and hoses. Drain the tank. Dispose of wash water or rinsate with pesticide waste. Offer cleaned container for recycling, if available, or puncture and dispose of it in a sanitary landfill, or by other procedures approved by State and local authorities.

(2.5 GALLON JUGS): Nonrefillable container. Do not reuse or refill this container. When container is empty, drain it completely, then puncture and dispose of it in a sanitary landfill or by other procedures approved by State and local authorities.

MANUFACTURED FOR:  
CLARKE MOSQUITO CONTROL PRODUCTS, INC.  
159 N. GARDEN AVENUE  
ROSELLE, ILLINOIS 60172  
For more information call: 1-800-323-5727

EPA REG. NO. 8329-93

Available Packaging: 2.5 GAL, 30 GAL, 55 GAL, 275 GAL, BULK

EPA EST. NO. \_\_\_\_\_

LOT NO: Marked on Container Label

COCOBEAR™ is a trademark of Clarke Mosquito Control Products, Inc.

**NOTICE:** To the extent consistent with applicable law, Clarke Mosquito Control Products, Inc. makes no warranty, express or implied, concerning the use of this product other than as indicated on the label. To the extent consistent with applicable law, buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.



# SAFETY DATA SHEET

**COCOBEAR®**

Effective Date: 03 March 2021

v.03

Page 1 of 7

## SECTION 1. Identification of the Substance/Mixture and of the Company

### 1.1 Product Identifier

Formulation Identifier: COCOBEAR®

EPA Registration Number: 8329-93

### 1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant identified uses: Insecticide for control of mosquito larvae and pupae

Uses advised against: See product label for use restrictions

### 1.3 Details of the Supplier of the Safety Data Sheet

Clarke Mosquito Control Products, Inc.  
675 Sidwell Court  
St. Charles, IL 60174 U.S.A.  
+1 (630) 894-2000  
Email: Clarke@clarke.com

### 1.4 Emergency Telephone Number

24-Hour Medical Emergency: POISON CONTROL Toll-free (800) 214-7753

24-Hour Transportation Emergency: INFOTRAC (800) 535-5053

## SECTION 2. Hazards identification

United States (US)

According to OSHA 29 CFR 1910.1200 HCS (2012)

### 2.1 Classification of the Substance or Mixture

Aspiration Hazard: Category 1

Acute Toxicity (Inhalation): Category 4

Pictogram:



Signal Word:

Danger

Hazard Statements:

May be fatal if swallowed and enters airways.

Harmful if inhaled

Precautionary Statements:

PREVENTION: Avoid breathing spray. Use only outdoors or in a well-ventilated area.

RESPONSE: If swallowed: Immediately call a poison control center or doctor. Do NOT induce vomiting.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell.



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**STORAGE:** Store locked up. Store in a well-ventilated place. Keep container tightly closed.

**DISPOSAL:** Dispose of contents and container in accordance with local/regional/national regulations.

## 2.2 Other Hazards Not Classifiable Under OSHA 2012 HCS

See product label for any additional hazards

## SECTION 3. Composition/Information on Ingredients

### 3.1 Components

Substance Name	CAS No.	Concentration % w/w
Mineral Oil	8042-47-5	10.00

Ingredients not identified are non-hazardous and/or are not required to be disclosed pursuant to 29 CFR 1910.1200 (2012), and are withheld as trade secret.

## SECTION 4. First Aid Measures

### 4.1 Description of First Aid Measures

**If Inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

**If swallowed:** Call a poison control center or doctor immediately for treatment advice. Do NOT induce vomiting unless told to do so by a poison control center or doctor. Do not give ANY liquid to the person. Do not give anything by mouth to an unconscious person.

### 4.2 Most Important Symptoms and Effects, Both Acute and Delayed.

**Inhalation:** Inhalation of vapors or mists may be irritating to the respiratory tract

**Ingestion:** Harmful if swallowed. Aspiration pneumonia hazard. Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhea

### 4.3 Indication of Immediate Medical Attention and Special Treatment

**Treatment:** Contains petroleum distillate. Gastric lavage is indicated if material was taken internally. May pose an aspiration pneumonia hazard. Appropriate supportive and symptomatic treatment is indicated by the patient's condition is recommended. For medical treatment information, contact the poison control hotline at 1-800-214-7753. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

## SECTION 5. Fire-Fighting Measures

### 5.1 Extinguishing Media

**Suitable Extinguishing Media:** Carbon Dioxide (CO<sub>2</sub>), Dry Chemical, Foam

**Unsuitable Extinguishing Media:** Water jet

### 5.2 Special Hazards Arising From the Substance or Mixture

**Specific Hazards:** Under fire conditions some components may decompose. Combustion products may include CO and NOx.

### 5.3 Special Protective Equipment and Precautions for Fire-Fighters

**Protection Against Fire:** Wear positive pressure, self-contained breathing apparatus and protective firefighting clothing (includes fire-fighting helmet, coat, pants, boots, and gloves).



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**Special Procedures:** Treat as oil fire. Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Dike for later disposal. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

## SECTION 6. Accidental Release Measures

### 6.1 Personal Precautions, Protective Equipment and Emergency Procedures

**General Precautions:** Use appropriate protection (see section 8)

**Environmental Precautions:** Prevent product from entering into drains and waterways. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Collect and dispose of this material and its container in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities. See Section 12 for additional ecological information.

### 6.2 Methods and Material for Containment and Cleaning Up

**Clean Up Methods:** Soak up with absorbent, non-combustible material, such as sand, silica gel, clay, or sawdust, while using appropriate personal protection equipment. Collect material in appropriate container for disposal.

## SECTION 7. Handling and Storage

### 7.1 Precautions for Safe Handling

**Handling:** Keep out of reach of children. Do not take internally. Avoid contact with skin and eyes. Avoid inhalation of vapors from product. Do not take internally.

Ensure that all equipment and tanks are cleaned from previous uses and dry before loading product. Do not mix product with water.

**Hygiene Measures:** Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove soiled clothing immediately and clean thoroughly before using again.

### 7.2 Conditions for Safe Storage, Including Any Incompatibilities

**Storage:** Store in a cool, well-ventilated place, preferably in the original container. Do not allow to come in contact with water during storage. If original container is not available or storing in a stationary bulk container or application equipment/tank, ensure storage container is clean, dry, sealed and free from leaks to prevent water from contacting the product. Do not mix with any other liquids or insecticidal products. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilizers. Keep out of reach of children. Product should be stored in compliance with local regulations.

**Incompatibilities:** Water, Moisture

## SECTION 8. Exposure Controls / Personal Protection

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.



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## 8.1 Control Parameters

Component Name	CAS No.	List/Source	Type	Value
Mineral Oil	8042-47-5	ACGIH	TLV	5 mg/m <sup>3</sup> inhalable fraction
		NIOSH	REL	5 mg/m <sup>3</sup> form: mist
		OSHA	PEL	5 mg/m <sup>3</sup>

## 8.2 Exposure controls

**Engineering Controls:** Use with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Wash hands thoroughly after handling. Wash clothing before re-using.

**Individual Protection Measures, such as Personal Protection Equipment:**

**Eye Protection:** Safety Glasses, Goggles or Face Shield

**Skin Protection:** Wear suitable protective clothing including long-sleeve shirt, long pants, shoes and socks.

**Hand Protection:** It is good industrial hygiene practice to minimize skin contact. If required or preferred, use suitable protective chemical resistant gloves such nitrile. Avoid natural or neoprene rubber. Promptly clean reusable gloves, if worn, and inspect for signs of damage, swelling, cracking, or brittleness. Replace damaged PPE immediately.

**Respiratory Protection:** None required under normal use of the product.

## SECTION 9. Physical and Chemical Properties

### 9.1 Information on Basic Physical and Chemical Properties

Appearance:	Liquid
Color:	Clear
Odor:	Detergent
Odor Threshold:	Not Available
pH:	Not Determined
Melting Point:	Not Applicable
Freezing Point:	Not Determined
Initial Boiling Point:	Not Determined
Flash Point:	> 95° C
Evaporation Rate:	Not Determined
Flammability:	Not Determined
Explosion limits [U/L]:	Not Applicable
Vapor Pressure:	Not Determined
Vapor Density:	Not Determined
Relative Density:	7.24 lbs/gal
Solubility:	Not Determined
Partition Coefficient:	Not Determined
Auto-Ignition Temperature:	Not Determined
Viscosity:	2.9 cps @ 40°C
Decomposition Temperature:	Not Available
Explosive Properties:	Not Available
Oxidizing Properties:	Not Available



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## SECTION 10. Stability and Reactivity

### 10.1 Reactivity

Not Available

### 10.2 Chemical Stability

Stable under normal conditions

### 10.3 Possibility of Hazardous Reactions

Hazardous Reactions: None under normal conditions

Hazardous Polymerization: Not known to occur

### 10.4 Conditions to avoid

Protect from direct sunlight, extreme heat, sparks, open flame.

### 10.5 Incompatible materials

Avoid contact with strong oxidizing agents, strong acids, strong bases

### 10.6 Hazardous decomposition products

None known under normal conditions of storage and use

## SECTION 11. Toxicological information

### 11.1 Information on Likely Routes of Exposure

Inhalation: May be harmful if inhaled

Ingestion: May be harmful if ingested.

May be fatal if swallowed and enters airways due to petroleum distillate. Vomiting may cause aspiration pneumonia.

### 11.2 Information on Toxicological Effects

#### Acute Toxicity/Effects

Oral, Rat LD<sub>50</sub> > 5,000 mg/kg-bw

Dermal, Rat LD<sub>50</sub> > 5,050 mg/kg-bw

Inhalation, Rat LC<sub>50</sub> > 2.16 mg/L

Skin Corrosion/Irritation: Not corrosive or irritating to the skin on acute exposure. Mild skin irritation or cracking may occur from prolonged or repeated exposure to this product.

Serious Eye Damage/Irritation: Not an eye irritant

Skin Sensitization: Not a skin sensitizer

STOT – Single exposure No data is available to indicate product or any components present at greater than 0.1% present a specific target organ toxicity hazard from single exposure.

#### Chronic Toxicity/Effects

##### Germ Cell Mutagenicity

This product has not been tested. No data is available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.



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Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.  Highly-refined oils, such as Mineral Oil, are classified by IARC as Group 3 – Not classifiable as to its carcinogenicity to humans.
Reproductive Effects:	No data is available to indicate product or any components present at greater than 0.1% cause reproductive or teratogenic toxicity.
STOT – Repeated exposure	No data is available to indicate product or any components present at greater than 0.1% present a specific target organ toxicity hazard from repeat exposure.

## SECTION 12. Ecological Information

### 12.1 Ecotoxicity

Product specific data is not available. Data referenced is in relation to the active ingredient, Mineral Oil

Toxicity to Fish:	No lethality in fish is observed in multiple studies of the aliphatic oils (mineral oil). The 96-hour LC50 of the fatty acid component to Bluegill is > 1000 mg/l.
Toxicity to Aquatic Invertebrates:	NOEC < 0.9 mg/l based on immobility, Water flea ( <i>Daphnia magna</i> ) LC50 > 100 mg/l, Water flea ( <i>Daphnia magna</i> )
Toxicity to Birds:	No lethality is observed in acute, oral, single-dose or sub-chronic dietary feeding tests in avian species. Acute oral toxicity in birds is > 2250 mg/kg-bw; Acute dietary toxicity is > 5620 ppm.

## SECTION 13. Disposal Considerations

### 13.1 Waste Treatment and Disposal methods

Pesticide wastes are regulated. Consult product label for chemical substance and container disposal instructions. Avoid release to the environment. Improper disposal of excess product or rinsate is a violation of Federal law. If these wastes cannot be disposed or by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA regional office for guidance.

Container disposal: Rinse thoroughly in accordance with label instructions.

## SECTION 14. Transport Information

- 14.1 DOT (US)  
Not regulated (Bulk and Non-Bulk Quantities)
- 14.2 IMDG (Vessel)  
Not regulated
- 14.3 ICAO/IATA (Air transport)  
Not Regulated

## SECTION 15. Regulatory Information

**FIFRA Information:** This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:





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Signal Word: CAUTION

KEEP OUT OF REACH OF CHILDREN

## FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.

IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice. DO NOT induce vomiting unless told to do so by a poison control center or doctor. Do not give ANY liquid to the person. Do not give anything by mouth to an unconscious person.
---------------	--

NOTICE TO PHYSICIANS: This product contains petroleum distillate and may pose an aspiration pneumonia hazard.

## PRECAUTIONARY STATEMENTS: HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION. Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Personal Protective Equipment (PPE): Mixers, loaders, applicators, and other handlers must wear long-sleeved shirt and long pants, and shoes plus socks.

User Safety Requirements: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User Safety Recommendations: Users should wash hands before eating, drinking, chewing gum, tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

## Other Federal Regulations

### SARA TITLE III CLASSIFICATION

Section 302: None

Section 311/312: Immediate (acute) hazard

Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

None

CERCLA RQ None

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**U.S. California Proposition 65:** Not listed

STATE RIGHT-TO-KNOW: National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

## SECTION 16. Other Information

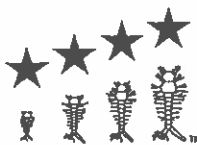
**DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared as is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

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End of document



# FOURSTAR®



## Briquets

### Specimen Label

## Sustained Release 90 Day Microbial Briquets

#### ACTIVE INGREDIENTS:

* <i>Bacillus sphaericus</i> 2362, Serotype H5a5b, Strain AML614 .....	6.00%
fermentation solids, spores and insecticidal toxins	
** <i>Bacillus thuringiensis</i> subspecies <i>israelensis</i> Strain BMP 144 .....	1.00%
fermentation solids, spores and insecticidal toxins	

OTHER INGREDIENTS: .....	93.00%
TOTAL: .....	100.00%

\* Equivalent to \*60 Bs ITU/mg and \*\*70 ITU/mg respectively. The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

### KEEP OUT OF REACH OF CHILDREN CAUTION

#### PRECAUTIONARY STATEMENTS

##### HAZARDS TO HUMANS AND DOMESTIC ANIMALS – CAUTION:

Harmful if inhaled. Causes moderate eye irritation. 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. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

##### ENVIRONMENTAL HAZARDS:

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

#### FIRST AID

If inhaled	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth if possible.</li><li>• Call poison control center or doctor for treatment advice.</li></ul>
If on skin or clothing	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call poison control center or doctor for treatment advice.</li></ul>
If in eyes	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, and then continue rinsing eyes.</li><li>• Call poison control center or doctor for treatment advice.</li></ul>

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

#### DIRECTIONS FOR USE

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

#### APPLICATION DIRECTIONS

FourStar® Briquets are a highly selective microbial insecticide effective against mosquitoes in a variety of habitats for up to 90 days or more. FourStar® Briquets release effective levels of *Bacillus sphaericus* and *Bacillus thuringiensis* subspecies *israelensis* to the water surface over time as the briquet dissolves.

#### APPLICATION SITES

FourStar® Briquets can be applied to areas that contain aquatic life, fish and plants, as well as areas used by or in contact with humans, animals, horses, livestock, pets, birds or wildlife. Examples of application sites include, but are not limited to: storm drains, catch basins, underground drainage systems, storm water retention areas, retention ponds, abandoned swimming pools, ornamental fountains and ponds, fish ponds, water gardens, animal drinking troughs, standing water, water holding receptacles, man-made and natural sites where mosquitoes may develop.

#### APPLICATION RATES

For control of mosquito larvae, place one (1) briquet in sites up to 100 square feet of surface area. For large sites, apply 1 additional briquet for each additional 100 square feet of water surface, regardless of water depth. When mosquito populations are high, water is heavily polluted, and/or algae are abundant, double the above application rate.

#### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in a cool, dry place.

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

**Container Disposal:** Nonrefillable container. Do not reuse or refill empty carton or packaging material. Offer for recycling if available or crush and discard carton in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### NOTICE TO USER

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 label instructions.

Always read the label before using this product.

For product information, call 1-800-248-7763 or visit our web site:

[www.fourstarmicrobials.com](http://www.fourstarmicrobials.com)



Manufactured for: B2E Microbials LLC  
DBA FourStar Microbials LLC  
1501 East Woodfield Road, #200W  
Schaumburg, Illinois, 60173 U.S.A.

FourStar and the FourStar design are trademarks of B2E Microbials LLC | Made in USA

EPA Reg. No. 83362-3 | EPA Est. No. 86884-0R-1  
©2013 FourStar | U.S. Patent No. 7837988



## SECTION 1: Identification

### 1.1. Identification

Product form : Mixture  
 Trade name : FourStar Briquets  
 Synonyms : 100514285; 100514296; 100514297; EPA Reg. No.: 83362-3; FourStar Briquets Sustained Release 180 Day Microbial Briquets; FourStar Briquets Sustained Release 45 Day Microbial Briquets; FourStar Briquets Sustained Release 90 Day Microbial Briquets; FourStar Microbial Briquets

### 1.2. Recommended use and restrictions on use

Recommended use : Microbial insecticide.  
 Restrictions on use : Keep out of reach of children. Avoid contact with eyes, skin or clothing. Do NOT take internally.

### 1.3. Supplier

B2E Microbials, LLC, DBA FourStar Microbials, LLC  
 1501 E. Woodfield Road, Suite 200W  
 Schaumburg, IL 60173 - United States

www.fourstarmicrobials.com

### 1.4. Emergency telephone number

Emergency number : 1-800-248-7763  
 1-800-424-9300 - CHEMTREC  
 1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

#### GHS-US classification

Skin sensitization, Category 1 May cause an allergic skin reaction

### 2.2. GHS Label elements, including precautionary statements

#### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) : Warning  
 Hazard statements (GHS-US) : May cause an allergic skin reaction  
 Precautionary statements (GHS-US) : Avoid breathing dust/fume/gas/mist/vapors/spray.  
 Contaminated work clothing must not be allowed out of the workplace  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 If on skin: Wash with plenty of water  
 Specific treatment (see supplemental first aid instruction on this label)  
 If skin irritation or rash occurs: Get medical advice/attention.  
 Wash contaminated clothing before reuse.  
 Dispose of contents/container to in accordance with local/regional/national/international regulations

### 2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

# FourStar Briquets

## Safety Data Sheet

### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product Identifier	%
Bacillus thuringiensis ssp. israelensis	(CAS-No.) 68038-71-1	1
Bacillus sphaericus	(CAS-No.) 143447-72-7	6
Plaster of paris	(CAS-No.) 28499-65-0	60 - 80
Other ingredients	(CAS-No.) N/A	Balance

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

- First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice and attention.
- First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

#### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after skin contact : May cause an allergic reaction in individuals with a sensitivity to Bacillus thuringiensis ssp. israelensis and/or Bacillus sphaericus.

#### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
- Unsuitable extinguishing media : Avoid heavy hose streams.

#### 5.2. Specific hazards arising from the chemical

- Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

#### 5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Do not allow fire fighting water to escape into waterways or sewers. Do not use direct stream of water. A direct stream of water may spread fire. Ventilate closed spaces before entering. Do not breathe gas/fumes/vapor/spray. Keep unauthorized personnel away.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapors/spray.

##### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure controls/personal protection.

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Sweep or scoop spills, dispose of any unusable material in approved landfill. Use appropriate PPE.

# FourStar Briquets

## Safety Data Sheet

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling

: Ensure good ventilation of the work station. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Provide local exhaust or general room ventilation. Wear personal protective equipment. Avoid contact with skin and eyes.

Hygiene measures

: Separate working clothes from town clothes. Launder separately. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

: Keep container tightly closed. Store locked up. Store in a well-ventilated place. Keep cool.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Plaster of paris (28499-65-0)		
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)

#### 8.2. Appropriate engineering controls

Appropriate engineering controls

: Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

#### 8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

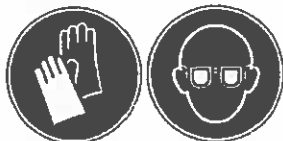
Safety glasses

Skin and body protection:

If prolonged exposure is anticipated, it is recommended for handlers to wear appropriate clothing to prevent skin contact.

Respiratory protection:

Not required for normal conditions of use



### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Light tan briquette
Color	: Light tan
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available

# FourStar Briquets

## Safety Data Sheet

Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 0.82
Solubility	: Soluble
Log Pow	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: Not explosive
Oxidizing properties	: Not applicable

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Bacillus thuringiensis ssp. israelensis (68038-71-1)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 inhalation rat (mg/l)	> 2.04 mg/l/4h
Bacillus sphaericus (143447-72-7)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 inhalation rat (mg/l)	> 2.04 mg/l/4h

GHS-US Properties	Classification
Acute toxicity	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitization	May cause an allergic skin reaction.
Germ cells mutagen	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicant (single exposure)	Not classified



# FourStar Briquets

## Safety Data Sheet

Specific target organ toxicant (repeated exposure)	Not classified
Aspiration hazard	Not classified

### Potential health effects

#### Inhalation

Acute : Under normal conditions of use, no health effects are expected.

#### Skin

Acute : Exposure may cause mechanical irritation, May cause an allergic reaction in individuals with a sensitivity to *Bacillus thuringiensis* ssp. *israelensis* and/or *Bacillus sphaericus*.

#### Eye

Acute : Exposure may cause mechanical eye irritation.

#### Ingestion

Acute : Under normal conditions of use, no health effects are expected.

Mutagenicity : Not classified.

Carcinogenicity : Not classified.

Reproductive Effects : Not classified.

## SECTION 12: Ecological information

### 12.1. Toxicity

No additional information available

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IMDG	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IATA	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

# FourStar Briquets

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<b>Bacillus thuringiensis ssp. israelensis (68038-71-1)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under Chemical Data Reporting Rule (formerly the Inventory Update Reporting Rule), i.e., Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 711).
<b>FIFRA Labelling</b>	
EPA Registration Number	83362-3
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 for use.	
FIFRA Signal word	<b>Caution</b>
FIFRA Precautionary Statement	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	Harmful if inhaled. Causes moderate eye irritation. Avoid contact with eyes or clothing. 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. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
FIFRA First Aid	If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth if possible. Call poison control center or doctor for treatment advice. If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, and then continue rinsing eye. Call poison control center or doctor for treatment advice. If on skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call poison control center or doctor for treatment advice.
FIFRA Environmental Hazards	Do not apply to treated, finish drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

### 15.2. US State regulations

No additional information available

## SECTION 16: Other information

Date of issue : 30 April 2014  
Revision date : 10 May 2018  
Supersedes : 09 June 2016

Indication of changes:  
SDS update.

SDS US (GHS HazCom 2012) - CGP

*The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.*



# Altosid<sup>®</sup> BRIQUETS



**A SUSTAINED RELEASE MOSQUITO GROWTH REGULATOR TO PREVENT ADULT MOSQUITO EMERGENCE (INCLUDING THOSE WHICH MAY TRANSMIT WEST NILE VIRUS)**

## SPECIMEN LABEL

### ACTIVE INGREDIENT:

(S)-Methoprene (Dry Weight Basis)  
(CAS #65733-16-6) ..... 8.62%

OTHER INGREDIENTS: ..... 91.38%  
Total .... 100.00%

This product contains water, therefore the weight of the briquet and percent by weight of active ingredient will vary with hydration. The Ingredient Statement is expressed on a dry weight basis.

EPA Reg. No. 2724-375      EPA Est. No. 2724-TX-1

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

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

### FIRST AID

Call a poison control center or doctor for treatment advice.

- |                   |   |
|-------------------|---|
| <b>If in eyes</b> | <ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul> |
|-------------------|---|

### FIRST AID (CONTINUED)

- |                               |   |
|-------------------------------|---|
| <b>If on skin or clothing</b> | <ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> </ul> |
|-------------------------------|---|

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

### ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of unused product.

### DIRECTIONS FOR USE

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

**Note to User:** Do not remove **ALTOSID<sup>®</sup> Briquets** from container except for immediate use.

Because of the unique mode of action of **ALTOSID<sup>®</sup> Briquets**, users must be familiar with special techniques for accurate evaluation of treatments. See Application Rates and Intervals section of this label or consult local Mosquito Abatement Agency. Effective use of **ALTOSID<sup>®</sup> Briquets** in sites subjected to periodic heavy flow of water requires careful attention to briquet placement and to the possible need for retreatment. Use of the product in storm drains, waste treatment and settling ponds, and similar systems should therefore be limited to experienced pesticide applicators, such as personnel of Mosquito Abatement Districts and Public Health Agencies.

**Introduction:** The **ALTOSID<sup>®</sup> Briquet** is a formulation designed to release effective levels of **ALTOSID<sup>®</sup> Insect Growth Regulator** up to 30 days under typical environmental conditions. Release of **ALTOSID<sup>®</sup> Insect Growth Regulator** is effected by dissolution of the **ALTOSID<sup>®</sup> Briquet**. If briquets become covered by obstructions such as debris, vegetation, and loose

sediment as a result of high rainfall or flow, normal dispersion of the active ingredient can be inhibited. Water flow may increase the dissolution of the briquet thus reducing the residual life of the briquet. Inspect areas of water flow to determine appropriate retreatment intervals. To assure positive results, place **ALTOSID® Briquets** where they will not be swept away by flushing action. **ALTOSID® Briquets** prevent the emergence of adult mosquitoes including *Anopheles*, *Culex*, *Culiseta*, *Coquillettidia*, and *Mansonia* spp., as well as those of the floodwater mosquito complex (*Aedes*, *Ochlerotatus*, and *Psorophora* spp.) from treated water. Treated larvae continue to develop normally to the pupal stage where they die.

#### APPLICATION TIMING

Apply **ALTOSID® Briquets** at the beginning of the mosquito season. **ALTOSID® Briquets** provide up to 30 days residual control. Continue treatment through the last brood of the season. Apply at any stage of larval development. **ALTOSID® Briquets** may be applied as a pre-flood treatment prior to wetting events. **ALTOSID® Briquets** will be unaffected in dry down situations and will begin working again during subsequent wetting events until the briquet is exhausted.

**NOTE:** This insect growth regulator has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

#### APPLICATION SITES

**ALTOSID® Briquets** are designed to control mosquitoes in small bodies of water. Examples of application sites are: storm drains, catch basins, roadside ditches, fish ponds, ornamental ponds and fountains, other artificial water-holding containers, animal watering troughs, cesspools and septic tanks, waste treatment and settling ponds, flooded crypts, transformer vaults, abandoned swimming pools, tires, construction and other manmade depressions, cattail marshes, water-hyacinth beds, vegetation-choked phosphate pits, pastures, meadows, rice fields, freshwater swamps and marshes, salt and tidal marshes, treeholes, woodland pools, floodplains, and dredging spoil sites. For application sites connected by a water system, i.e., storm drains or catch basins, treat all of the water holding sites in the system to maximize the efficiency of the treatment program.

#### APPLICATION RATES AND INTERVALS

For mosquito control in non-(or low-) flow, shallow depressions (up to two ft in depth), treat on the basis of surface area placing one **ALTOSID® Briquet** per 100 sq ft. For applications in storm water drainage areas, sewers, and catch basins: Place one **ALTOSID® Briquet** into each catch basin. Follow the chart below to determine the number of **ALTOSID® Briquets** to use in large catch basins. Place one **ALTOSID® Briquet** per 100 sq ft of surface area up to two feet deep for storm water drainage areas. Use one additional **ALTOSID® Briquet** per two feet of water depth in areas deeper than two feet.

**ALTOSID® BRIQUET APPLICATION CHART**

Number of Briquets	Catch Basin Size	Water Depth (Feet)
1	0-1,500	0-2
2	1,500-3,000	2-4
3	3,000-4,500	4-6
4	4,500-6,000	6-8

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. **Storage:** Store in cool, dry place. **Pesticide Disposal:** Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. **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 and box in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

To the fullest extent permitted by law, Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and handling of this material when such use and handling are contrary to label instructions.

Always read the label before using this product.

For more information call 1-800-248-7763.

**www.altosid.com**

**Wellmark International**  
1501 East Woodfield Road 200W  
Schaumburg, Illinois 60173



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March, 2010  
Schaumburg, IL

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Trade name : Zoecon Altosid Briquets  
Synonyms : EPA Reg. No.: 2724-375, 37060F, 37090C, ProLink Briquets

#### 1.2. Recommended use and restrictions on use

Recommended use : Insect growth regulator.  
Restrictions on use : Avoid contact with eyes and clothing. Do not use or store near heat or open flame. Keep out of reach of children.

#### 1.3. Supplier

Wellmark International  
1501 E. Woodfield Road, Suite 200W  
Schaumburg, IL 60173 - United States  
[www.centralmosquitocontrol.com](http://www.centralmosquitocontrol.com)

#### 1.4. Emergency telephone number

Emergency number : 1-888-914-2082  
1-800-424-9300 - CHEMTREC  
1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Serious eye damage/eye irritation Category 2B  
Carcinogenicity Category 1A  
Combustible Dust

Causes eye irritation  
May cause cancer  
May form combustible dust concentrations in air

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US)



GHS06

Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: May form combustible dust concentrations in air  
Causes eye irritation  
May cause cancer

Precautionary statements (GHS US)

: Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Wash hands, forearms and face thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.  
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.  
If exposed or concerned: Get medical advice/attention.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental information

: Exposure to silica dust from the finished product is not expected to occur due to the manner in which the constituents are bound. Finished product is not considered carcinogenic.

#### 2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification

: Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

# Zoecon Altosid Briquets

## Safety Data Sheet

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product Identifier	%
(s)-Methoprene Technical	(CAS-No.) 65733-16-6	8.62
Silica, crystalline - quartz	(CAS-No.) 14808-60-7	< 0.73
Plaster of paris	(CAS-No.) 26499-65-0	71.84
Activated Carbon	(CAS-No.) 7440-44-0	17.53
Non-hazardous and/or does not meet criteria for classification	(CAS-No.) N/A	Balance

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : 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 and attention.
- First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after eye contact : Causes mild eye irritation.
- Chronic symptoms : May cause cancer.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Carbon dioxide. Water spray. Dry chemical. Foam.
- Unsuitable extinguishing media : Avoid heavy hose streams.

### 5.2. Specific hazards arising from the chemical

- Explosion hazard : Dust cloud can be ignited by a spark. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
- Reactivity : This material is friable and can create small dust particles during any handling, processing, and transfer operations. This material can form explosive dust/air suspensions that are ignitable under some conditions.

### 5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Combustible dust - use low-pressure medium fog streams to avoid dust clouds. Ventilate closed spaces before entering. Eliminate ignition sources.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel. Contain spill and monitor for excessive dust accumulation. Turn off electric power to area. No flames, no sparks. Eliminate all sources of ignition. Wear appropriate personal protective equipment, avoid direct contact.

#### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure controls/personal protection.

# Zoecon Altosid Briquets

## Safety Data Sheet

### Emergency procedures

- : Contain spill and monitor for excessive dust accumulation. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ventilate closed spaces before entering. Turn off electric power to area. As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions. Evacuate area.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up

- : Sweep or scoop spills, dispose of any unusable material in approved landfill. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Non-sparking tools should be used. Use appropriate PPE.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling

- : Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Avoid dust formation. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Take all necessary technical measures to avoid or minimize the release of the product on the workplace.

Hygiene measures

- : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

- : Store in a well-ventilated place. Keep cool. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Store locked up.

Incompatible materials

- : Heat, sparks, open flame. Strong oxidizers.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Silica, crystalline - quartz (14808-60-7)		
ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³ (respirable particulate matter)
OSHA	OSHA PEL (TWA) (mg/m³)	50 µg/m³
IDLH	US IDLH (mg/m³)	50 mg/m³ (respirable dust)
NIOSH	NIOSH REL (TWA) (mg/m³)	0.05 mg/m³ (respirable dust)
Plaster of paris (26499-65-0)		
OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)
NIOSH	NIOSH REL (TWA) (mg/m³)	10 mg/m³ (total dust) 5 mg/m³ (respirable dust)
Activated Carbon (7440-44-0)		
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³ Inhalable; 3 mg/m³ Respirable
OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ Total dust; 5 mg/m³ Respirable

### 8.2. Appropriate engineering controls

Appropriate engineering controls

- : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values. It is recommended that dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.

Environmental exposure controls

- : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

# Zoecon Altosid Briquets

## Safety Data Sheet

Safety glasses

### Skin and body protection:

If prolonged exposure is anticipated, it is recommended for handlers to wear appropriate clothing to prevent skin contact.

### Respiratory protection:

In case of insufficient ventilation, use NIOSH approved respiratory protection.



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Gray to black solid
Color	: Gray to black
Odor	: Slight hydrocarbon
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non-flammable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: Not applicable
Bulk density	: 1.04 g/cc (64.9 lb/ft <sup>3</sup> )
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: Combustible Dust
Oxidizing properties	: Not applicable

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material is friable and can create small dust particles during any handling, processing, and transfer operations. This material can form explosive dust/air suspensions that are ignitable under some conditions.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur. May form combustible dust concentrations in the air.

### 10.4. Conditions to avoid

Avoid dust formation. Heat. No flames, no sparks. Eliminate all sources of ignition.



# Zoecon Altosid Briquets

## Safety Data Sheet

### 10.5. Incompatible materials

Heat, sparks, open flame. Strong oxidizing agents.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Zoecon Altosid Briquets	
LD50 oral	> 5100 mg/kg
LD50 dermal rabbit	> 2100 mg/kg

Silica, crystalline - quartz (14808-60-7)	
Listed on IARC (International Agency for Research on Cancer), Listed as carcinogen on NTP (National Toxicology Program)	
IARC group	1 - Carcinogenic to humans
National Toxicity Program (NTP) Status	Known Human Carcinogens
In OSHA Hazard Communication Carcinogen list?	Yes

GHS-US Properties	Classification
Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (Inhalation)	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Causes eye irritation.
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	May cause cancer.
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

### Potential health effects

#### Inhalation

Acute : Exposure to dust may cause respiratory irritation. Acute Silicosis can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss.

Chronic : Repeated and prolonged exposure to crystalline silica containing materials may cause irritation and/or lung damage silicosis, fibrosis, inflammation, cancer.

#### Skin

Acute : Exposure to dust may cause mechanical irritation.

#### Eye

Acute : Causes mild eye irritation.

#### Ingestion

Acute : Under normal conditions of use, no health effects are expected.

Mutagenicity : (s)-Methoprene has been tested and found negative for mutagenicity potential.

Carcinogenicity : (s)-Methoprene is not classified as a carcinogen by NTP, IARC or OSHA. Crystalline silica (quartz) inhaled from occupational sources is classified as carcinogenic to humans. Exposure to respirable crystalline silica dust from the finished product is not expected to occur due to the manner in which the constituents are bound, thus the finished product is not considered carcinogenic under conditions of normal use.

Reproductive Effects : (s)-Methoprene is not a reproductive toxin and does not cause birth defects.

## SECTION 12: Ecological information

### 12.1. Toxicity

(s)-Methoprene Technical (65733-16-6)	
LC50 Acute fish 1	0.76 mg/l (Exposure time: 96h - Rainbow trout)

# Zoecon Altosid Briquets

## Safety Data Sheet

### (s)-Methoprene Technical (65733-16-6)

LC50 Acute fish 2	> 0.37 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute crustacea 1	0.11 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.36 mg/l (Exposure time: 48h - Daphnia magna)
NOEC Chronic fish 1	0.048 mg/l (Fathead minnow)
NOEC Chronic crustacea 1	0.014 mg/l (Mysid shrimp)

### 12.2. Persistence and degradability

#### (s)-Methoprene Technical (65733-16-6)

Persistence and degradability	(s)-Methoprene degrades rapidly in sunlight, both in water and on inert surfaces. The pesticide also is metabolized rapidly in soil and does not leach. Thus, it should not persist in soil or contaminate ground water.
-------------------------------	--

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

#### (s)-Methoprene Technical (65733-16-6)

Mobility in soil	Rapidly metabolized in soil under both aerobic and anaerobic conditions (half-life 10-14 days).
------------------	---

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IMDG	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IATA	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

<b>Silica, crystalline - quartz (14808-60-7)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Activated Carbon (7440-44-0)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>FIFRA Labelling</b>	
EPA Registration Number	2724-375
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 for use.	
FIFRA Signal word	Caution
FIFRA Precautionary Statement	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin and clothing. Wash thoroughly with soap and water after handling.

# Zoecon Altosid Briquets

## Safety Data Sheet

FIFRA First Aid	If in eyes: 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. If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.
FIFRA Environmental Hazards	Do not contaminate water when disposing of unused product.

### 15.2. US State regulations

No additional information available

## SECTION 16: Other information

Date of issue : 01 November 2003  
Revision date : 14 April 2020  
Supersedes : 23 July 2015

SDS US (GHS HazCom 2012) - CGP

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# Altosid<sup>®</sup> PELLETS WSP

## MOSQUITO GROWTH REGULATOR



- A GRANULAR PRODUCT TO PREVENT ADULT MOSQUITO EMERGENCE (*including those which may transmit West Nile virus*)
- IDEAL WHEN TREATING HARD-TO-REACH STORMWATER SITES
- READY-TO-USE WATER SOLUBLE POUCHES (WSP)
- A SINGLE WSP COVERS UP TO 135 FT<sup>2</sup> OF WATER SURFACE AREA

## SPECIMEN LABEL

### ACTIVE INGREDIENT:

(S)-Methoprene (CAS# 65733-16-6)..... 4.25%

OTHER INGREDIENTS:..... 95.75%

TOTAL ..... 100.00%

EPA Reg. No. 2724-448

EPA Est. No. 065387-AR-002

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

See additional Precautions

### DIRECTIONS FOR USE

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

### INTRODUCTION

ZOËCON<sup>®</sup> ALTOSID<sup>®</sup> Pellets WSP (ALTOSID<sup>®</sup> Pellets WSP) release ALTOSID<sup>®</sup>, an Insect Growth Regulator as they erode. ALTOSID<sup>®</sup> Pellets WSP prevent the emergence of adult standing water mosquitoes, including *Anopheles*, *Culex*, *Culiseta*, *Coquillettidia*, and *Mansonia* spp., as well as adults of the floodwater mosquitoes, such as *Aedes*, *Ochlerotatus*, and *Psorophora* spp. from treated sites.

### GENERAL DIRECTIONS

ALTOSID<sup>®</sup> Pellets WSP release effective levels of ALTOSID<sup>®</sup> Insect Growth Regulator for up to 30 days under typical environmental conditions. Continue treatment through the last brood of the season. Treated larvae continue to develop normally to the pupal stage where they die.

**NOTE:** This insect growth regulator has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

ALTOSID<sup>®</sup> Pellets WSP are convenient ready-to-use pouches for treating mosquito breeding sites. The pouches are water-sensitive and when in contact with water, the pouches dissolve, releasing the pellets. Use care when handling unused pouches so that moisture does not collect on the pouches. Keep pouches sealed in the original package until ready for use. Once outer foil bag containing water soluble pouches is opened, use pouches within one day.

### PRECAUTIONARY STATEMENTS – HAZARDS TO HUMANS & DOMESTIC ANIMALS CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.

#### FIRST AID

Call a poison control center or doctor for treatment advice.

**IF IN EYES** • 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.

**IF ON SKIN OR CLOTHING** • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

### ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of rinsate or equipment washwaters.

## APPLICATION SITES

**ALTOSID® Pellets WSP** are effective against *Anopheles*, *Culex*, *Culiseta*, *Aedes*, *Ochlerotatus*, *Coquilleltida*, *Mansonia* and *Psorophora* mosquito species. Use pouches to treat small bodies of water such as: catch basins, storm drains, roadside ditches, tree holes, flooded crypts, transformer pits, fish ponds, woodland pools, fountains, septic tanks, ornamental ponds, manmade depressions, animal watering troughs, ditches, and other natural or artificial water-holding containers.

## APPLICATION RATE

Place one pouch into each catch basin. For other mosquito breeding sites, one pouch will treat up to 135 ft<sup>2</sup> of surface area. **ALTOSID® Pellets WSP** will provide up to 30 days control of emerging adult mosquitoes.

## STORAGE AND DISPOSAL

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

**Storage:** Store closed containers of ALTOSID® Pellets WSP in a cool, dry place.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of

on site or at an approved waste disposal facility.

**Container Handling: Outer foil-lined pouch of water soluble packets:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available, or dispose of empty outer foil pouch in the trash as long as WSP is unbroken.

## WARRANTY AND CONDITIONS OF SALE

Seller makes no warranty, expressed or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

For information or in case of an emergency,  
call 1-800-248-7763.

[www.centralmosquitocontrol.com](http://www.centralmosquitocontrol.com)

Produced for:

**Wellmark International**  
1501 East Woodfield Road 200W  
Schaumburg, Illinois 60173

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September, 2022  
Schaumburg, IL

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Name : Zoecon Altosid Pellets  
Synonyms : 100503099, 100526053, 37730D, EPA Reg. No.: 2724-448, Prolink Pellets Mosquito Growth Regulator, Strike Pellets, Zoecon Altosid Pellets WSP, Zoecon Altosid WSP, Zoecon RF-330 Altosid Mosquito Growth Regulator

#### 1.2. Recommended use and restrictions on use

Recommended use : Insect growth regulator.  
Restrictions on use : Avoid contact with eyes and clothing. Do not use or store near heat or open flame. Avoid breathing dust.

#### 1.3. Supplier

Wellmark International  
1501 E. Woodfield Road, Suite 200W  
Schaumburg, IL 60173 - United States  
www.centralmosquitocontrol.com

#### 1.4. Emergency telephone number

Emergency number : 1-800-248-7763  
1-800-424-9300 - CHEMTREC  
1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Serious eye damage/eye irritation Category 2B	Causes eye irritation
Carcinogenicity Category 1A	May cause cancer
Combustible Dust	May form combustible dust concentrations in air

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US) :



GHS08

Signal word (GHS US) :

: Danger

Hazard statements (GHS US) :

: May form combustible dust concentrations in air  
Causes eye irritation  
May cause cancer

Precautionary statements (GHS US) :

: Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Wash hands, forearms and face thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If exposed or concerned: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.  
Store locked up.  
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Supplemental information :

: The finished product is not considered carcinogenic because of the product's physical form. The Hazard Statement "May Cause Cancer" is presented because a component of this product contains a naturally occurring trace amount of crystalline silica (quartz) which is classified as carcinogenic to humans if inhaled. Respiratory exposure to silica dust from the finished product is not expected to occur under normal conditions of use due to the manner in which the constituents are bound or packaged in water soluble pouches. The crystalline silica in the finished product is unlikely to pose personal exposure via inhalation.

# Zoecon Altosid Pellets

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### 2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product Identifier	%
(s)-Methoprene Technical	(CAS-No.) 65733-16-6	4.25
Plaster of paris	(CAS-No.) 26499-65-0	69.16
Silica, crystalline - quartz	(CAS-No.) 14808-60-7	0.7
Activated Carbon	(CAS-No.) 7440-44-0	9.26
Non-hazardous and/or does not meet criteria for classification	(CAS-No.) N/A	Balance

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : 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 and attention.

First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after eye contact : Causes mild eye irritation.

Chronic symptoms : May cause cancer.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Dry chemical, CO<sub>2</sub>, or water spray or regular foam.

Unsuitable extinguishing media : Avoid heavy hose streams.

### 5.2. Specific hazards arising from the chemical

Explosion hazard : Dust cloud can be ignited by a spark. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Reactivity : This material is friable and can create small dust particles during any handling, processing, and transfer operations. This material can form explosive dust/air suspensions that are ignitable under some conditions.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Combustible dust - use low-pressure medium fog streams to avoid dust clouds. Ventilate closed spaces before entering. Eliminate ignition sources. Move containers away from the fire area if this can be done without risk.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment : Avoid contact with skin, eyes and clothing. Wear suitable protective equipment.

Emergency procedures : Evacuate unnecessary personnel. No flames, no sparks. Eliminate all sources of ignition. Ventilate spillage area. Do not breathe dust. Wear appropriate personal protective equipment, avoid direct contact.



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### 6.1.2. For emergency responders

Protective equipment

: Do not attempt to take action without suitable protective equipment. Positive pressure self-contained breathing apparatus (SCBA). For further information refer to section 8: Exposure controls/personal protection.

Emergency procedures

: Contain spill and monitor for excessive dust accumulation. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ventilate closed spaces before entering. Turn off electric power to area. As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions. Evacuate area. Stay upwind. Stop leak if safe to do so. Wear appropriate personal protective equipment, avoid direct contact.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up

: Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Non-sparking tools should be used. Sweep or scoop spills, dispose of any unusable material in approved landfill. Use appropriate PPE.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling

: Avoid contact with skin, eyes and clothing. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Ensure good ventilation of the work station. Avoid dust formation. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Provide local exhaust or general room ventilation. Wear personal protective equipment. Do not breathe dust.

Hygiene measures

: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

: Keep only in original container. Store in a well-ventilated place. Keep cool. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store locked up. Store in cool, dry area, inaccessible to children and pets. Avoid excessive heat. Store at temperatures not exceeding 90°F.

Incompatible materials

: Heat, sparks, open flame. Strong oxidizers. Strong acids. Strong bases.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Plaster of paris (28499-65-0)		
OSHA	OSHA PEL TWA	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)
NIOSH	NIOSH REL TWA	10 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)
Silica, crystalline - quartz (14808-60-7)		
ACGIH	ACGIH OEL TWA	0.025 mg/m <sup>3</sup> : (respirable particulate matter)
OSHA	OSHA PEL TWA	50 µg/m <sup>3</sup>
IDLH	IDLH	50 mg/m <sup>3</sup> : (respirable dust)
NIOSH	NIOSH REL TWA	0.05 mg/m <sup>3</sup> : (respirable dust)
Activated Carbon (7440-44-0)		
ACGIH	ACGIH OEL TWA	10 mg/m <sup>3</sup> Inhalable; 3 mg/m <sup>3</sup> Respirable
OSHA	OSHA PEL TWA	15 mg/m <sup>3</sup> Total dust; 5 mg/m <sup>3</sup> Respirable

### 8.2. Appropriate engineering controls

Appropriate engineering controls

: It is recommended that dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Environmental exposure controls

: Avoid release to the environment.

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### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

If prolonged exposure is anticipated, it is recommended for handlers to wear appropriate clothing to prevent skin contact.

#### Respiratory protection:

Follow the OSHA respirator regulations found in 29 CFR 1910.134. Use a NIOSH approved respirator if exposure limits are exceeded or symptoms are experienced



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Dark gray to black rod-shaped pellets
Color	: Dark gray to black
Odor	: Slight hydrocarbon
Odor threshold	: No data available
pH	: Not applicable
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Non-flammable
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Bulk density	: 59 to 60 lb(s)/ft <sup>3</sup>
Solubility	: Insoluble
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosion limits	: Not applicable
Explosive properties	: Combustible dust
Oxidizing properties	: Not applicable

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material is friable and can create small dust particles during any handling, processing, and transfer operations. This material can form explosive dust/air suspensions that are ignitable under some conditions.

### 10.2. Chemical stability

Stable under normal conditions.

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### 10.3. Possibility of hazardous reactions

May form combustible dust concentrations in air. Hazardous polymerization will not occur. No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Avoid dust formation. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Zoecon Altosid Pellets	
LD50 oral rat	> 5100 mg/kg
LD50 dermal rabbit	> 2100 mg/kg

Silica, crystalline - quartz (14808-60-7)	
Listed on IARC (International Agency for Research on Cancer), Listed as carcinogen on NTP (National Toxicology Program)	
IARC group	1 - Carcinogenic to humans
National Toxicity Program (NTP) Status	Known Human Carcinogens
In OSHA Hazard Communication Carcinogen list?	Yes

GHS-US Properties	Classification
Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Causes eye irritation.
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	May cause cancer.
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

### Potential health effects

#### Inhalation

- Acute : Under normal conditions of use, no health effects are expected.
- Chronic : Exposure to respirable crystalline silica is not expected during normal use of this product. However, prolonged overexposure to respirable crystalline silica may cause lung disease (silicosis).

#### Skin

- Acute : Under normal conditions of use, no health effects are expected.

#### Eye

- Acute : Causes eye irritation.

#### Ingestion

- Acute : Under normal conditions of use, no health effects are expected.

- Mutagenicity : (s)-Methoprene has been tested and found negative for mutagenicity potential.

- Carcinogenicity : (s)-Methoprene is not classified as a carcinogen by NTP, IARC or OSHA. Exposure to respirable crystalline silica dust from the finished product is not expected to occur due to the manner in which the constituents are bound, thus the finished product is not considered carcinogenic under conditions of normal use.

- Reproductive Effects : (s)-Methoprene is not a reproductive toxin and does not cause birth defects.

# Zoecon Altosid Pellets

## Safety Data Sheet

### SECTION 12: Ecological information

#### 12.1. Toxicity

(s)-Methoprene Technical (65733-16-6)	
LC50 Acute fish 1	0.76 mg/l (Exposure time: 96h - Rainbow trout)
LC50 Acute fish 2	> 0.37 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute crustacea 1	0.11 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.36 mg/l (Exposure time: 48h Daphnia)
NOEC Chronic fish 1	0.048 mg/l (Fathead minnow)
NOEC Chronic crustacea 1	0.014 mg/l (Mysid shrimp)

#### 12.2. Persistence and degradability

(s)-Methoprene Technical (65733-16-6)	
Persistence and degradability	(s)-Methoprene degrades rapidly in sunlight, both in water and on inert surfaces. The pesticide also is metabolized rapidly in soil and does not leach. Thus, it should not persist in soil or contaminate ground water.

#### 12.3. Bioaccumulative potential

No data available

#### 12.4. Mobility in soil

(s)-Methoprene Technical (65733-16-6)	
Mobility in soil	Rapidly metabolized in soil under both aerobic and anaerobic conditions (half-life 10-14 days).

#### 12.5. Other adverse effects

No data available

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

### SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IMDG	UN3077	Packaging greater than 5 kg: Environmentally hazardous substance, solid, n.o.s ((s)-Methoprene)	9	III	Marine pollutant
IATA	UN3077	Packaging greater than 5 kg: Environmentally hazardous substance, solid, n.o.s ((s)-Methoprene)	9	III	Chronic Aquatic Toxicity Acute aquatic toxicity

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

Silica, crystalline - quartz (14808-80-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Activated Carbon (7440-44-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA Labelling	
EPA Registration Number	2724-448
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 for use.	
FIFRA Hazard statements	Caution
FIFRA Precautionary statements	KEEP OUT OF REACH OF CHILDREN.

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FIFRA Hazards to Humans and Domestic Animals	Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.
FIFRA First aid	If in eyes: 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. Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.
FIFRA Environmental hazards	Do not contaminate water when disposing of rinsate or equipment washwaters.

### 15.2. US State regulations

No additional information available

## SECTION 16: Other information

Issue date : 22 June 2015  
Revision date : 11 December 2023  
Supersedes : 18 December 2020


Indication of changes:

Revised Sec. 14: Updated transportation description.

SDS US (GHS HazCom 2012) - CGP

*The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.*





# Altosid<sup>®</sup> XR

## EXTENDED RESIDUAL BRIQUETS



**ZOECON.**

**A SUSTAINED RELEASE PRODUCT TO PREVENT ADULT MOSQUITO EMERGENCE  
(INCLUDING THOSE WHICH MAY TRANSMIT WEST NILE VIRUS)**

## SPECIMEN LABEL

### ACTIVE INGREDIENT:

(S)-Methoprene (CAS #65733-16-6))

(Dry Weight Basis): . . . . . 2.1%

**OTHER INGREDIENTS:** . . . . . 97.9%

Total. . . . . 100.0%

EPA Reg. No. 2724-421

EPA Est. No. 2724-TX-1

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

SEE ADDITIONAL PRECAUTIONARY STATEMENTS

### INTRODUCTION

**ALTOSID<sup>®</sup> XR BRIQUETS** are designed to release effective levels of (S)-Methoprene insect growth regulator over a period up to 150 days in mosquito breeding sites. Release of (S)-Methoprene insect growth regulator occurs by dissolution of the briquet. Soft mud and loose sediment can cover the briquets and inhibit normal dispersion of the active ingredient. The product may not be effective in those situations where the briquet can be removed from the site by flushing action.

**ALTOSID<sup>®</sup> XR BRIQUETS** prevent the emergence of adult mosquitoes including: *Anopheles*, *Culex*, *Culiseta*, *Coquillettidia*, and *Mansonia* spp., as well as those of the floodwater mosquito complex (*Aedes*, *Ochlerotatus*, and *Psorophora* spp.) from treated water. Treated larvae continue to develop normally to the pupal stage where they die.

**NOTE:** (S)-Methoprene insect growth regulator has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.

#### FIRST AID

Call a poison control center or doctor for treatment advice.

#### If in eyes

- 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.

#### If on skin or clothing

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

### ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of unused product.

### DIRECTIONS FOR USE

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

## APPLICATION TIME

Place **ALTOSID® XR BRIQUETS** at or before the beginning of the mosquito season. Apply **ALTOSID® XR BRIQUETS** prior to flooding when sites are dry, or on snow and ice in breeding sites prior to spring thaw. Under normal conditions, one application will last the entire mosquito season, or up to 150 days, whichever is shorter. Alternate wetting and drying will not reduce their effectiveness.

## APPLICATION RATES

**Aedes, Ochlerotatus, and Psorophora spp.:** For control in non-(or low-) flow shallow depressions ( $\leq 2$  feet in depth), treat on the basis of surface area, placing one **ALTOSID® XR BRIQUET** per 200 ft<sup>2</sup>. Place briquets in the lowest areas of mosquito breeding sites to maintain continuous control as the site alternately floods and dries up.

**Culex, Culiseta and Anopheles spp.:** Place one **ALTOSID® XR BRIQUET** per 100 ft<sup>2</sup>.

**Coquillettidia and Mansonia spp.:** For application to cattail marshes and water hyacinth beds. For control of these mosquitoes, place one **ALTOSID® XR BRIQUET** per 100 ft<sup>2</sup>.

**Culex sp. in storm water drainage areas, sewers, and catch basins:** For catch basins, place one **ALTOSID® XR BRIQUET** into each basin. In cases of large catch basins, follow the chart below to determine the number of briquets to use. For storm water drainage areas, place one briquet per 100 ft<sup>2</sup> of surface area up to two ft deep. In areas that are deeper than two feet, use one additional briquet per two feet of water depth.

Water flow pressure increases the potential dissolution of the briquet. Conduct regular inspections (visual or biological) in areas of water flow to determine if the briquet is still present. Adjust the retreatment interval based on the results of an inspection.

### ALTOSID® XR BRIQUETS Application Chart

Number of Briquets	Catch Basin Size (Gallons)	Surface Area/ Water Depth (ft)
1	0 – 1500	0 – 2
2	1500 – 3000	2 – 4
3	3000 – 4500	4 – 6
4	4500 – 6000	6 – 8

## APPLICATION SITES

**ALTOSID® XR BRIQUETS** are designed to control mosquitoes in treated areas. Examples of application sites are: storm drains, catch basins, roadside ditches, fish ponds, ornamental ponds and fountains, other artificial water-holding containers, animal watering troughs, cesspools and septic tanks, waste treatment and settling ponds, flooded crypts, transformer vaults, abandoned swimming pools, fires, construction and other manmade depressions, cattail marshes, water hyacinth beds, vegetation-choked phosphate pits, pastures, meadows, rice fields, freshwater swamps and marshes, salt and tidal marshes, treeholes, woodland pools, floodplains, and dredging spoil sites. For application sites connected by a water system, i.e., storm drains or catch basins, treat all of the water-holding sites in the system to maximize the efficiency of the treatment program.

## STORAGE AND DISPOSAL

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

**STORAGE:** Store in a cool place. Do not reuse empty container.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**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 container in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## WARRANTY AND CONDITIONS OF SALE

Seller makes no warranty, expressed or implied, concerning the use and handling of this product other than indicated on the label. To the extent permitted by law, Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

For information, or in case of an emergency, call 1-800-248-7763.

[www.altosid.com](http://www.altosid.com)

**Wellmark International**  
1501 East Woodfield Road 200W  
Schaumburg, Illinois 60173



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May, 2010  
Schaumburg, IL





# Zoecon Altosid XR Extended Residual Briquets

## Safety Data Sheet

Issue date: 07/17/2015

Revision date: 07/22/2022

Supersedes: 05/31/2017

Version: 1.2

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Name : Zoecon Altosid XR Extended Residual Briquets  
Synonyms : 100508841, 100508842, 100508846, 100530326, EPA Reg. No.: 2724-421, ProLink XR Extended Release Briquets, Zoecon RF-292 Briquet, Altosid 150 Day XR Briquet

#### 1.2. Recommended use and restrictions on use

Recommended use : Insect growth regulator.  
Restrictions on use : Keep out of reach of children and domestic animals. Avoid contact with eyes, skin or clothing.

#### 1.3. Supplier

Wellmark International  
1501 E. Woodfield Road, Suite 200W  
Schaumburg, IL 60173 - United States  
www.zoecon.com

#### 1.4. Emergency telephone number

Emergency number : 1-800-248-7763  
1-800-424-9300 - CHEMTREC  
1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Serious eye damage/eye irritation Category 2B

Causes eye irritation

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Signal word (GHS US) : Warning  
Hazard statements (GHS US) : Causes eye irritation  
Precautionary statements (GHS US) : Wash hands, forearms and face thoroughly after handling.  
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.

#### 2.3. Other hazards which do not result in classification

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product Identifier	%
(s)-Methoprene Technical	(CAS-No.) 65733-16-6	2.1
Plaster of paris	(CAS-No.) 26499-65-0	> 77.6
Non-hazardous and/or does not meet criteria for classification	(CAS-No.) N/A	Balance

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention.

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First-aid measures after inhalation	: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact	: IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: 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 and attention.
First-aid measures after ingestion	: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after eye contact	: Mild eye irritation.
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### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Dry chemical. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Avoid heavy hose streams.

### 5.2. Specific hazards arising from the chemical

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
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### 5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures	: Keep upwind. Wear appropriate personal protective equipment, avoid direct contact.
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#### 6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure controls/personal protection.
Emergency procedures	: Avoid dust formation. Do not scatter spilled material with high pressure water streams. Evacuate unnecessary personnel. Stay upwind. Stop release. Ventilate area. Wear appropriate personal protective equipment, avoid direct contact.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Use appropriate PPE. Sweep or scoop spills, dispose of any unusable material in approved landfill.
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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Provide local exhaust or general room ventilation. Wear personal protective equipment. Avoid contact with skin and eyes.
Hygiene measures	: Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store locked up. Store in a well-ventilated place. Keep cool. Avoid humid, wet or moist conditions.
Incompatible materials	: Strong acids.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

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Plaster of paris (26499-65-0)		
OSHA	OSHA PEL TWA [1]	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)
NIOSH	NIOSH REL TWA	10 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)

### 8.2. Appropriate engineering controls

- Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.
- Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

It is recommended for handlers to wear appropriate clothing to prevent skin contact including long sleeves, long pants, socks and shoes.

#### Respiratory protection:

In case of insufficient ventilation, use NIOSH approved respiratory protection.



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: White to gray briquet
Color	: White to gray
Odor	: Slight hydrocarbon
Odor threshold	: No data available
pH	: Not applicable
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Non-flammable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.04 g/cc (64.9 lb/ft <sup>3</sup> )
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosion limits	: Not applicable

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Explosive properties : Not explosive  
Oxidizing properties : Not applicable

### 9.2. Other Information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Avoid humid, moist or wet conditions.

### 10.5. Incompatible materials

Strong acids.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Zoecon Altosid XR Extended Residual Briquets	
LD50 oral rat	> 5100 mg/kg
LD50 dermal rabbit	> 2100 mg/kg

GHS-US Properties	Classification
Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Causes eye irritation.
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

### Potential health effects

#### Inhalation

Acute : May cause respiratory tract irritation.

#### Skin

Acute : May cause mild skin irritation.

#### Eye

Acute : Causes mild eye irritation.

#### Ingestion

Acute : Under normal conditions of use, no health effects are expected.

Mutagenicity : (s)-Methoprene has been tested and found negative for mutagenicity potential.

Carcinogenicity : (s)-Methoprene is not classified as a carcinogen by NTP, IARC or OSHA.

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Reproductive Effects : (s)-Methoprene is not a reproductive toxin and does not cause birth defects.

### SECTION 12: Ecological information

#### 12.1. Toxicity

(s)-Methoprene Technical (85733-16-6)	
LC50 Acute fish 1	0.76 mg/l (Exposure time: 96hr Oncorhynchus mykiss)
LC50 Acute fish 2	> 0.37 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute crustacea 1	0.11 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.36 mg/l (Exposure time: 48h Daphnia)
NOEC Chronic fish 1	0.048 mg/l (Fathead minnow)
NOEC Chronic crustacea 1	0.014 mg/l (Mysid shrimp)

#### 12.2. Persistence and degradability

(s)-Methoprene Technical (85733-16-6)	
Persistence and degradability	(s)-Methoprene degrades rapidly in sunlight, both in water and on inert surfaces. The pesticide also is metabolized rapidly in soil and does not leach. Thus, it should not persist in soil or contaminate ground water.

#### 12.3. Bioaccumulative potential

No data available

#### 12.4. Mobility in soil

(s)-Methoprene Technical (85733-16-6)	
Mobility in soil	Rapidly metabolized in soil under both aerobic and anaerobic conditions (half-life 10-14 days).

#### 12.5. Other adverse effects

No data available

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

### SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IMDG	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IATA	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

EPA Labelling	
EPA Registration Number	2724-421
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 for use.	
FIFRA Hazard statements	Caution
FIFRA Precautionary statements	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling.

# Zoecon Altosid XR Extended Residual Briquets

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FIFRA First aid	Call a poison control center or doctor for treatment advice. If in eyes: 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. If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.
FIFRA Environmental hazards	Do not contaminate water when disposing of unused product.

### 15.2. US State regulations

No additional information available

## SECTION 16: Other information


Issue date : 17 July 2015  
Revision date : 22 July 2022  
Supersedes : 31 May 2017

### Indication of changes:

Revised Sec. 1: Emergency telephone number. Revised Sec. 3: Mixture classification change.

SDS US (GHS HazCom 2012) - CGP

*The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.*



# Altosid XR-G®



ZOECON.

**LARVICIDE PRODUCT TO PREVENT ADULT MOSQUITO EMERGENCE** (Including *Aedes* sp. and those which may transmit West Nile virus, Zika, dengue, chikungunya and other mosquito-borne diseases)

## SPECIMEN LABEL

### ACTIVE INGREDIENT:

(S)-Methoprene (CAS #65733-16-6) . . . . . 1.5%

**OTHER INGREDIENTS:** . . . . . 98.5%

Total . . . . . 100.0%

EPA Reg. No. 2724-451

EPA Est. No. 2724-TX-1

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes or skin. Due to the size and abrasiveness of the granule, use protective eyewear and clothing to minimize exposure during loading and handling. Wash thoroughly with soap and water after handling.

### ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of rinsate or equipment washwaters.

#### FIRST AID

**If in eyes** • 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.

**If on skin or clothing** • 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. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

### DIRECTIONS FOR USE

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

### GENERAL DIRECTIONS

**ALTOSID XR-G®** releases effective levels of **ALTOSID®** insect growth regulator for up to 21 days after application. Applications should be continued throughout the entire season to maintain adequate control. Treated larvae continue to develop normally to the pupal stage where they die. Rotary and fixed-wing aircraft equipped with granular spreaders capable of applying rates listed below may be used to apply **ALTOSID XR-G®**. Ground equipment which will achieve even coverage at these rates may also be used. Apply **ALTOSID XR-G®** uniformly and repeat application as necessary.

**NOTE:** **ALTOSID®** insect growth regulator has no effect on mosquitoes which have reached the pupal or adult stage prior to treatment.

### APPLICATION TIME

Apply **ALTOSID XR-G®** at any stage of larval mosquito development. Granules may be applied prior to flooding (i.e., "pre-hatch" or "pre-flood") in areas which flood intermittently. In such areas, 1 application of **ALTOSID XR-G®** can prevent adult mosquito emergence from several subsequent floodings. The actual length of control depends on the duration and frequency of flooding events.

### APPLICATION RATES

*Aedes*, *Anopheles*, and *Psorophora* spp.: Apply **ALTOSID XR-G®** at 5 - 10 lb/acre (5.6-11.2 kg/ha). *Culex*, *Culiseta*, *Coquillettidia*, and *Mansonia* spp.: Apply **ALTOSID XR-G®** at 10-20 lb/acre (11.2-22.4 kg/ha). Within these ranges, use lower rates when water is shallow [ $< 2$  feet (60 cm)] and vegetation and/or pollution are minimal. Use higher rates when water is deep [ $\geq 2$  feet (60 cm)] and vegetation and/or pollution are heavy.

## APPLICATION SITES

**Non-Crop Areas:** ALTOSID XR-G® may be applied as directed above to temporary and permanent sites which support mosquito larval development. Examples of such sites include: snow pools, salt and tidal marshes, freshwater swamps and marshes (cattail, red cedar, white maple marshes), woodland pools and meadows, dredging spoil sites, drainage areas, ditches, wastewater treatment facilities, livestock runoff lagoons, retention ponds, harvested timber stacks, swales, storm water drainage areas, sewers, catch basins, tree holes, animal watering troughs, water-holding receptacles (e.g., tires, urns, flower pots, cans, and other containers), and other natural and manmade water-holding depressions.

**Crop Areas:** ALTOSID XR-G® may be applied as directed above to temporary and permanent sites which support mosquito larval development. Examples of such sites include: irrigated croplands, pastures, rangeland, vineyards, rice fields (domestic and wild), date palm, citrus, fruit, nut orchards, berry fields and bogs.

**NOTE:** Application of ALTOSID XR-G® to sites subject to water flow or exchange will diminish the product's effectiveness and may require higher application rates and/or more frequent applications.

## STORAGE AND DISPOSAL

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

### PESTICIDE STORAGE

Store closed containers of ALTOSID XR-G® in a cool, dry place.

### PESTICIDE DISPOSAL

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

### PESTICIDE CONTAINER DISPOSAL

Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent). Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## WARRANTY AND CONDITIONS OF SALE

Seller makes no warranty, expressed or implied, concerning the use and handling of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

For information call 1-800-248-7763.

[www.centralmosquitocontrol.com](http://www.centralmosquitocontrol.com)

**Wellmark International**  
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January, 2017  
Schaumburg, IL



### SECTION 1: Identification

#### 1.1. Identification

- Product form : Mixture
- Name : Zoecon Altosid XR-G
- Synonyms : 37330, 38880, 100544004, EPA Reg. No.: 2724-451, Altosid Pro-G, RF9010, Zoecon 9010 GR, Zoecon Altosid Pro-G Insect Growth Regulator

#### 1.2. Recommended use and restrictions on use

- Recommended use : Insect growth regulator.
- Restrictions on use : Keep out of reach of children and domestic animals. Avoid all contact with skin, eyes, or clothing. Avoid breathing dust.

#### 1.3. Supplier

Wellmark International  
1501 E. Woodfield Road, Suite 200W  
Schaumburg, IL 60173 - United States  
[www.centralmosquitocontrol.com](http://www.centralmosquitocontrol.com)

#### 1.4. Emergency telephone number

- Emergency number : 1-800-248-7763  
1-800-424-9300 - CHEMTREC  
1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

- Carcinogenicity Category 1A May cause cancer
- Specific target organ toxicity (repeated exposure) Category 1 Causes damage to organs through prolonged or repeated exposure

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US)



GHS08

- Signal word (GHS US) : Danger
- Hazard statements (GHS US) : May cause cancer  
Causes damage to organs through prolonged or repeated exposure
- Precautionary statements (GHS US) : Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Do not breathe dust, fume, gas, mist, vapors, spray.  
Wash hands, forearms and face thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves, protective clothing, eye protection, face protection.  
If exposed or concerned: Get medical advice/attention.  
Get medical advice/attention if you feel unwell.  
Store locked up.  
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

#### 2.3. Other hazards which do not result in classification

- Other hazards which do not result in classification : The finished product is not considered carcinogenic because of the product's physical form. The Hazard Statement "May Cause Cancer" is presented because a component of this product contains naturally occurring crystalline silica (quartz) which is classified as carcinogenic to humans if inhaled. Respiratory exposure to silica dust from the finished product is not expected to occur under normal conditions of use due to the manner in which the constituents are bound. The crystalline silica in the finished product is unlikely to pose personal exposure via inhalation

# Zoecon Altosid XR-G

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in light of studies conducted that indicate there is minimal liberation of particulates from the product during extreme handling or transport.

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product Identifier	%
(s)-Methoprene Technical	(CAS-No.) 65733-16-6	1.5
Silica, crystalline - quartz	(CAS-No.) 14808-60-7	90.6
Non-hazardous and/or does not meet criteria for classification	(CAS-No.) N/A	Balance

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

- First-aid measures general : IF exposed or concerned: Get medical advice/attention.
- First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : 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 and attention.
- First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects : May cause damage to organs.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam.
- Unsuitable extinguishing media : Avoid heavy hose streams.

### 5.2. Specific hazards arising from the chemical

- Fire hazard : Material is non-combustible and is not expected to pose a fire or explosion hazard.
- Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

### 5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

- Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene. Avoid contact with skin, eyes and clothing. Ventilate spillage area.

#### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure controls/personal protection.
- Emergency procedures : Do not scatter spilled material with high pressure water streams. Do NOT wash away into sewer. Avoid release to the environment. Evacuate unnecessary personnel. Stay upwind. Stop leak if safe to do so. Ventilate area. Wear appropriate personal protective equipment, avoid direct contact.

### 6.2. Environmental precautions

Avoid release to the environment.

# Zoecon Altosid XR-G

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### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Use appropriate PPE. Sweep or scoop spills, dispose of any unusable material in approved landfill.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Provide local exhaust or general room ventilation. Wear personal protective equipment.

Hygiene measures : Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in original container. Keep container tightly closed. Store locked up. Store in a well-ventilated place. Store in a cool dry place.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Silica, crystalline - quartz (14808-60-7)		
ACGIH	ACGIH OEL TWA	0.025 mg/m <sup>3</sup> : (respirable particulate matter)
OSHA	OSHA PEL TWA [1]	50 µg/m <sup>3</sup>
IDLH	IDLH	50 mg/m <sup>3</sup> : (respirable dust)
NIOSH	NIOSH REL TWA	0.05 mg/m <sup>3</sup> : (respirable dust)

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

If prolonged exposure is anticipated, it is recommended for handlers to wear appropriate clothing to prevent skin contact.

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Dark gray to black granules

Color : Dark gray to black

Odor : Mild hydrocarbon

Odor threshold : No data available

pH : No data available

Melting point : 1610 °C (2930° F)

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Freezing point	: Not applicable
Boiling point	: 2230 °C (4046° F)
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Non-flammable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: Not applicable
Density	: 2.4 g/cm <sup>3</sup>
Bulk density	: 1.6 g/cc (100 lb/cu ft)
Solubility	: Insoluble
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: Not explosive
Oxidizing properties	: Not applicable

### 9.2. Other Information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Zoecon Altosid XR-G	
LD50 oral rat	> 4000 mg/kg
LD50 dermal rat	> 4000 mg/kg

Silica, crystalline - quartz (14808-60-7)	
Listed on IARC (International Agency for Research on Cancer), Listed as carcinogen on NTP (National Toxicology Program)	
IARC group	1 - Carcinogenic to humans
National Toxicity Program (NTP) Status	Known Human Carcinogens
In OSHA Hazard Communication Carcinogen list?	Yes

GHS-US Properties	Classification
Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified

# Zoecon Altosid XR-G

## Safety Data Sheet

Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	May cause cancer.
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not classified

### Potential health effects

#### Inhalation

**Acute** : Exposure to respirable crystalline silica is not expected during the normal use of this product. However, acute silicosis can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss.

**Chronic** : Exposure to respirable crystalline silica is not expected during normal use of this product. However, prolonged overexposure to respirable crystalline silica may cause lung disease (silicosis).

#### Skin

**Acute** : Essentially non-irritating.

#### Eye

**Acute** : Essentially non-irritating.

#### Ingestion

**Acute** : Under normal conditions of use, no health effects are expected.

**Mutagenicity** : (s)-Methoprene has been tested and found negative for mutagenicity potential.

**Carcinogenicity** : (s)-Methoprene is not classified as a carcinogen by NTP, IARC or OSHA. Exposure to respirable crystalline silica dust from the finished product is not expected to occur due to the manner in which the constituents are bound, thus the finished product is not considered carcinogenic under conditions of normal use.

**Reproductive Effects** : (s)-Methoprene is not a reproductive toxin and does not cause birth defects.

## SECTION 12: Ecological information

### 12.1. Toxicity

(s)-Methoprene Technical (65733-16-6)	
LC50 Acute fish 1	0.76 mg/l (Exposure time: 96hr Oncorhynchus mykiss)
LC50 Acute fish 2	> 0.37 mg/l (Exposure time: 96h - Blue gill)
LC50 Acute crustacea 1	0.11 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.36 mg/l (Exposure time: 48h Daphnia)
NOEC Chronic fish 1	0.048 mg/l (Fathead minnow)
NOEC Chronic crustacea 1	0.014 mg/l (Mysid shrimp)

### 12.2. Persistence and degradability

(s)-Methoprene Technical (65733-16-6)	
Persistence and degradability	(s)-Methoprene degrades rapidly in sunlight, both in water and on inert surfaces. The pesticide also is metabolized rapidly in soil and does not leach. Thus, it should not persist in soil or contaminate ground water.

### 12.3. Bioaccumulative potential

No data available

### 12.4. Mobility in soil

(s)-Methoprene Technical (65733-16-6)	
Mobility in soil	Rapidly metabolized in soil under both aerobic and anaerobic conditions (half-life 10-14 days).

### 12.5. Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

**Product/Packaging disposal recommendations** : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

# Zoecon Altosid XR-G

## Safety Data Sheet

### SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IMDG	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IATA	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

<b>Silica, crystalline - quartz (14808-60-7)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>EPA Labelling</b>	
EPA Registration Number	2724-451
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 for use.	
FIFRA Hazard statements	<b>Caution</b>
FIFRA Precautionary statements	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes or skin. Due to the size and abrasiveness of the granule, use protective eyewear and clothing to minimize exposure during loading and handling. Wash thoroughly with soap and water after handling.
FIFRA First aid	IF IN EYES: 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. IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.
FIFRA Environmental hazards	Do not contaminate water when disposing of rinsate or equipment wash waters.

#### 15.2. US State regulations

No additional information available

### SECTION 16: Other information

Issue date	: 24 January 2014
Revision date	: 18 January 2023
Supersedes	: 01 October 2020

Indication of changes:

Revised Sec. 1: Revised material number(s).

SDS US (GHS HazCom 2012) - CGP

The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.

# VectoBac® WDG

BIOLOGICAL LARVICIDE

WATER DISPERSIBLE GRANULE



FOR ORGANIC PRODUCTION

## ACTIVE INGREDIENT:

*Bacillus thuringiensis*, subsp. *israelensis*, strain AM 65-52

fermentation solids, spores, and insecticidal toxins\* .... 37.4%

OTHER INGREDIENTS ..... 62.6%

TOTAL..... 100.0%

\*Potency: 3000 International Toxic Units (ITU) per mg of product  
Equivalent to 1.36 billion ITU/lb of product.

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

EPA Reg. No. 73049-56

EPA Est. No. 33762-1A-001

List No. 60215

## INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
  - 2.1 Hazards to Humans and Domestic Animals
  - 2.2 Environmental Hazards
- 3.0 Directions for Use
- 4.0 Application Directions
- 5.0 Small Quantity Dilution Rates
- 6.0 Ground and Aerial Application
  - 6.1 Aerial Application
- 7.0 Storage and Disposal
- 8.0 Notice to User

KEEP OUT OF REACH OF CHILDREN

CAUTION

1.0

## FIRST AID

If Inhaled	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
If in eyes	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>

## HOTLINE 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 1-800-892-0099 (24 hours) for emergency medical treatment and/or transportation emergency information. For all other information, call 1-800-89-VALENT (1-800-898-2536).

## 2.0 PRECAUTIONARY STATEMENTS

### 2.1 HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

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

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a NIOSH-approved particulate respirator with any N, P or R filter with NIOSH approval number prefix TC-84A or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

### 2.2 Environmental Hazards

Do not contaminate water when disposing of equipment washwater or rinsate.

## 3.0 DIRECTIONS FOR USE

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

Do not apply directly to treated, finished drinking water reservoirs.

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. Do not apply this product through any type of irrigation system.

## 4.0 APPLICATION DIRECTIONS

Do not apply when wind speed favors drift beyond the area of treatment.

VectoBac® WDG Biological Larvicide Water Dispersable Granule (hereafter referred to as VectoBac WDG) is an insecticide for use against mosquito larvae.

### Mosquito Larvae Control in Urban and Rural Areas Mosquito Habitat Application Rate Range\*

Irrigation ditches, roadside ditches, flood water, standing pools, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas, tidal water, salt marshes and rice fields.	1.75 - 7.0 oz/acre (50 - 200 g/acre) (125 - 500 g/ha)
---	---

Direct spray applications to sites where mosquitoes breed. These sites include tires and tire piles, potted plants, tree holes, garbage bins, cans, birdbaths, rain barrels, and other water-holding containers and small bodies of water such as personal rainwater catchment cisterns.



#### 4.0 APPLICATION DIRECTIONS (CONT'D)

Mosquito Habitat	Applications Rate Range*
Polluted water, such as sewage and animal waste lagoons	7.0 - 14.0 oz/acre (200 - 400 g/acre) (500 - 1000 g/ha)

Standing water, which contains mosquito larvae, in fields with growing crops (e.g., alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches and walnuts) can be treated at the specified application rates.

\* Use higher application rate range in polluted water and when late 3rd and early 4th instar larvae predominate, mosquito populations are high, and/or algae are abundant.

#### 5.0 SMALL QUANTITY DILUTION RATES

For when small areas are to be treated, the table below can be used to determine application rates.

Gallons Spray Mixture/Acre  
(Ounces Needed per Gallon of Spray)

Rates in		Final concentration, ounces/gallon spray		
Ounces/Acre Grams/A		10 Gal/A	25 Gal/A	50 Gal/A
1.75	50	0.175	0.07	0.04
3.5	100	0.35	0.14	0.07
7.0	200	0.7	0.28	0.14
14.0	400	1.4	0.565	0.28

#### 6.0 GROUND AND AERIAL APPLICATION (In Urban and Rural Areas)

VectoBac WDG may be applied using conventional ground or aerial application equipment with quantities of water sufficient to provide uniform coverage of the target area. For application, first add VectoBac WDG to water to produce a final spray mixture.

The amount of water will depend on weather, spray equipment, and mosquito habitat characteristics. For application, fill the mix tank or plane hopper with the desired quantity of water. Start the mechanical or manual agitation to provide moderate circulation of water before adding VectoBac WDG. Backpack and compressed air sprayers may be agitated by shaking after adding VectoBac WDG to the water in the sprayer. VectoBac WDG suspends readily in water and will stay suspended over normal application periods. Brief recirculation may be necessary if the spray mixture has sat for several hours or longer. Do not mix more VectoBac WDG than can be used in a 48-hour period. AVOID CONTINUOUS AGITATION OF THE SPRAY MIXTURE DURING SPRAYING.

For ground spraying, apply VectoBac WDG at a rate of 1.75 - 14 oz/acre (50 - 400 g/acre; 125-1000 g/ha) in 5 - 100 gallons of water per acre (47 - 950 liters/ha) using hand-pump, airblast, mist blower, or other spray equipment.

For aerial application, apply VectoBac WDG at a rate of 1.75 - 14 oz/acre (50 - 400 g/acre; 125-1000 g/ha) in 0.25 - 10 gallons of water per acre (2.4 - 93.5 liters/ha) through fixed wing or helicopter aircraft equipped with either conventional boom and nozzle systems or rotary atomizers to provide uniform coverage of the target area.

**Rinse and flush spray equipment thoroughly following each use.**

#### 6.1 Aerial Application

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all of these factors when making decisions.

#### 7.0 STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in cool [59 - 86°F (15 - 30°C)], 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. 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 1/4 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, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### 8.0 NOTICE TO USER

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

VectoBac is a registered trademark of  
Valent BioSciences LLC.

**VALENT BIOSCIENCES.**

870 TECHNOLOGY WAY  
LIBERTYVILLE, IL 60048 USA  
PH: 800-323-9597



## VectoBac® WDG Biological Larvicide

SDS# VBC-0019 Revision 6

ISSUED 03/25/2024

[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:** VectoBac® WDG**Synonyms:** VectoBac® WG, VectoBac 37 WG, Gnatrol WDG, Gnatrol DG**EPA Reg No.:** 73049-56**Code Number:** 80893, 33921**List Number:** 60215, A560215**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 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**

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	Percent
None	<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> , strain AM65-52	37.4
Trade Secret	Other ingredients	62.6

**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

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911, then give artificial respiration.

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

Possible eye and skin irritation

**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 impervious gloves. See personal protection as recommended in Section 8.

**VectoBac® WDG Biological Larvicide****SDS# VBC-0019 Revision 6****ISSUED 03/25/2024**

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

**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.

**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.

**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)**

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

**VectoBac® WDG Biological Larvicide**
**SDS# VBC-0019 Revision 6**
**ISSUED 03/25/2024**

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

**8.2 Exposure Controls**
**Appropriate Engineering Controls**

Provide general ventilation.

**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.

**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:	Brown fine granules	Odor :	Musty odor
pH:	5.8 (10% dispersion in water)	Boiling Point:	Not Determined
Melting Point:	Not Applicable	Solubility (H <sub>2</sub> O):	Suspends and partially soluble
Specific Gravity:	Not Determined	Bulk Density:	0.36 g/ml
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	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**

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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**

## LIKELY ROUTES OF EXPOSURE

Eye Contact: Yes

Skin Contact: Yes

Ingestion: No

Inhalation: No

ACUTE EFFECTS Product Toxicology Studies (Data for product)ORAL TOXICITY: LD<sub>50</sub> > 5,000 mg/kg (rat)DERMAL TOXICITY: LD<sub>50</sub> > 5,000 mg/kg (rabbit)INHALATION TOXICITY: LC<sub>50</sub> > 5.60 mg/L air (rat- nose only; maximum feasible concentration)

CORROSIVENESS: Not corrosive.

DERMAL IRRITATION: Weakly irritating

OCULAR IRRITATION: Mildly irritating

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: Not Applicable.

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: LC<sub>50</sub> >370 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)

Bees: Essentially nontoxic to honey bees

## VectoBac® WDG Biological Larvicide

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

**12.2 Persistence and Degradability**

No data available

**12.3 Bioaccumulation potential**

Not applicable

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

**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: 73049-56

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.

**KEEP OUT OF REACH OF CHILDREN****CAUTION****PRECAUTIONARY STATEMENTS****HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

Harmful if inhaled. Avoid breathing dust. Remove contaminated clothing and wash before reuse. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to treated finished drinking water reservoirs.



## VectoBac® WDG Biological Larvicide

SDS# VBC-0019 Revision 6

ISSUED 03/25/2024

[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.

**Storage:** Store in cool [59-86°F (15-30°C)], dry place.

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

**Container Handling:**

Plastic Container: 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 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, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**16. OTHER INFORMATION****NFPA Hazard Ratings**

Health: 0  
Flammability: 0  
Instability: 0

**HMIS Hazard Ratings**

Health: 0  
Flammability: 0  
Instability: 0

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

REASON FOR ISSUE: Add SAP product list number

APPROVAL DATE: 03/19/2021

SUPERSEDES DATE: 01/03/2020

LEGEND: N/A = Not Applicable

N/L = Not Listed

C = Ceiling

(R) = Registered Trademark of Valent BioSciences

(TM) = Registered Trademark of Valent BioSciences

N/D = Not Determined

L = Listed

S = Short-term

**VectoBac® WDG Biological Larvicide****SDS# VBC-0019 Revision 6****ISSUED 03/25/2024**

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

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 LLC 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 LLC 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 LLC 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.

# VectoBac<sup>®</sup> 12AS

BIOLOGICAL LARVICIDE

AQUEOUS SUSPENSION

## Active Ingredient:

*Bacillus thuringiensis*, subsp. *israelensis*, strain

AM 65-52, fermentation solids and solubles ..... 11.61%

Other Ingredients ..... 88.39%

Total ..... 100.00%

Potency: 1200 International Toxic Units (ITU) per mg

(Equivalent to 4.84 billion ITU per gallon, 1.279 billion ITU per liter)

There is no direct relationship between intended activity (potency) and the Percent Active Ingredient by Weight.

EPA Reg. No. 73049-38

EPA Est. No. 33762-IA-001

List No. 05605

## INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
  - 2.1 Hazard to Humans (and Domestic Animals)
  - 2.2 Physical and Chemical Hazards
- 3.0 Directions for Use
  - 3.1 Chemigation
- 4.0 Storage and Disposal
- 5.0 Application Directions
- 6.0 Nuisance Flies
- 7.0 Nuisance Aquatic Midges
- 8.0 Ground and Aerial Application
- 9.0 Small Quantity Dilution Rates
- 10.0 Chemigation
  - 10.1 Rice-Flood (Basin) Chemigation
- 11.0 Notice to User

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

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

## 2.0 PRECAUTIONARY STATEMENTS

### 2.1 HAZARD TO HUMANS (AND DOMESTIC ANIMALS) CAUTION

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash contaminated clothing before reuse. Mixer/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.

### 2.2 Physical and Chemical Hazards

Diluted or undiluted VectoBac 12AS can cause corrosion if left in prolonged contact with aluminum spray system components. Rinse spray system with plenty of clean water after use. Care should be taken to prevent contact with aluminum aircraft surfaces, structural components and control systems. In case of contact, rinse thoroughly with plenty of water. Inspect aluminum aircraft components regularly for signs of corrosion.

## 3.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply directly to finished drinking water reservoirs or drinking water receptacles when water is intended for human consumption.

Do not apply when weather conditions favor drift from treated areas. Do not apply to metallic painted objects, such as automobiles, as spotting may occur. If spray is deposited on metallic painted surfaces, wash immediately with soap and water to avoid spotting.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all these factors when making decisions.

### 3.1 Chemigation

Do not apply this product through any type of irrigation system unless labeling on chemigation is followed.

## 4.0 STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. **STORAGE:** Store in a cool, [less than 86° F (30° C)], dry place.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** 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 1/4 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. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Do not reuse container.

CONTINUED

## 5.0 APPLICATION DIRECTIONS

Do not apply when wind speed favors drift beyond the area of treatment.

Mosquito Habitat	Suggested Rate Range*
(Such as the following examples): Irrigation ditches, roadside ditches, flood water, standing ponds, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas, tidal water, salt marshes and rice fields.	0.25 - 2 pts/acres

In addition, standing water containing mosquito larvae, in fields growing crops such as: Alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches and walnuts, may be treated at the recommended rates.

When applying this product to standing water containing mosquito larvae in fields growing crops, do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Polluted water (such as sewage lagoons, animal waste lagoons).	1 - 2 pts/acre
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\*Use higher rate range in polluted water and when late 3rd and early 4th instar larvae predominate, mosquito populations are high, water is heavily polluted, and/or algae are abundant.

Blackflies Habitat	Suggested Rate Range
Streams	
Stream water† (= ppm) for 1 minute exposure time	0.5 - 25 mg/liter
Stream water† (= ppm) for 10 minutes exposure time	0.05 - 2.5 mg/liter

†Use higher rate range when stream contains high concentration of organic materials, algae, or dense aquatic vegetation.

†Discharge is a principal factor determining carry of Bti. Use higher rate or increase volume by water dilution in low discharge rivers or streams under low volume (drought) conditions.

## 6.0 NUISANCE FLIES

For control of nuisance flies (*Psychoda* spp., *Chironomus* spp.) in sewage treatment facilities utilizing trickling filter systems.

### APPLICATION DIRECTIONS

Nuisance Fly Habitat	Suggested Rate Range*
Trickling filter system of wastewater treatment plants	10 - 20 mg/liter a.(0.833-1.67 ml) per liter of wastewater feed to the filter per 30 minutes

\* Use high rate for control of *Chironomus* spp. Apply undiluted with pre-calibrated pump or other device into the wastewater feeding into the filters for a period of 30 minutes. Repeat applications as needed after 2-4 weeks. Control of *Chironomus* spp. may take up to 2 weeks.

## 7.0 NUISANCE AQUATIC MIDGES

For control of *Chironomine* midges (*Chironominae: Chironomini*) inhabiting shallow, manmade and natural lakes or ponds.

### APPLICATION DIRECTIONS

Nuisance Midge Habitat	Suggested Rate Range*
Shallow Lakes and Ponds per sewage oxidation ponds (less than acre 6 feet deep)	1 gallon (3,785.5 ml) per acre

\* Apply diluted with water in total volume of 5 gallons/acre by pouring or spraying over the surface to be treated with pre-calibrated device. Repeat application as needed after 2-4 weeks. Control of *Chironomine* midges may take up to 2 weeks.

## 8.0 GROUND AND AERIAL APPLICATION

VectoBac 12AS may be applied in conventional ground or aerial application equipment with quantities of water sufficient to provide uniform coverage of the target area. The amount of water will depend on weather, spray equipment, and mosquito habitat characteristics. Do not mix more VectoBac 12AS than can be used in a 72-hour period.

For most ground spraying, apply in 5-100 gallons of water per acre using hand-pump, airblast, mist blower, etc., spray equipment.

For aerial application, VectoBac 12AS may be applied either undiluted or diluted with water. For undiluted applications, apply 0.25 to 2.0 pt/acre of VectoBac 12AS through fixed wing or helicopter aircraft equipped with either conventional boom and nozzle systems or rotary atomizers.

For diluted application, fill the mix tank or plane hopper with the desired quantity of water. Start the mechanical or hydraulic agitation to provide moderate circulation before adding the VectoBac 12AS. VectoBac 12AS suspends readily in water and will stay suspended over normal application periods. Brief recirculation may be necessary if the spray mixture has sat for several hours or longer. AVOID CONTINUOUS AGITATION OF THE SPRAY MIXTURE DURING SPRAYING.

Rinse and flush spray equipment thoroughly following each use.

For blackfly aerial applications, VectoBac 12AS can be applied undiluted via fixed wing or helicopter aircraft equipped with either conventional boom and nozzle systems or open pipes. Rate of application will be determined by the stream discharge and the required amount of VectoBac 12AS necessary to maintain a 0.5 - 25 ppm concentration in the stream water. VectoBac 12AS can also be applied diluted with similar spray equipment. Do not mix more VectoBac 12AS than can be used in a 72-hour period.

## 9.0 SMALL QUANTITY DILUTION RATES

Gallons Spray Solution/Acre  
(Ounces Needed per Gallon of Spray)

### VectoBac 12AS

#### Rate in Pints

Per Acre	10 Gal/A	25 Gal/A	50 Gal/A
0.25 (4 oz)	0.4	0.16	0.08
0.5 (8 oz)	0.8	0.32	0.16
1.0 (16 oz)	1.6	0.64	0.32
2.0 (32 oz)	3.2	1.28	0.64

CONTINUED

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## **10.0 CHEMIGATION**

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Apply this product through flood (basin) irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have any questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers or other experts.

A person knowledgeable of this chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

### **10.1 RICE-FLOOD (BASIN) CHEMIGATION**

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.

VectoBac 12AS is metered or dripped into rice floodwater at application stations positioned at the point of introduction (levee cut) of water into each rice field or pan. Two to three pints of VectoBac 12AS are diluted in water to a final volume of 5 gallons. The diluted solution is contained in a 5 gallon container and metered or dispersed into the irrigation water using a constant flow device at the rate of 80 ml per minute. Introduction of the solution should begin when 1/3 to 1/2 of the pan or field is covered with floodwater. Delivery of the solution should continue for a period of approximately 4-1/2 hours. Floodwater depth should not exceed 10-12 inches to prevent excessive dilution of VectoBac 12AS which could result in reduced larval kill.

Agitation is not required during the period in which the VectoBac 12AS solution is being dispersed.

Application of VectoBac 12AS into rice floodwater is not permitted using a pressurized water and pesticide injection system.

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## **11.0 NOTICE TO USER**

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Seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning 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 accompanying directions.

VectoBac is a registered trademark of Valent BioSciences Corporation.





## SAFETY DATA SHEET

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### VectoBac® 12AS Biological Larvicide Aqueous Suspension

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

[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:** VectoBac® 12 AS Biological Larvicide Aqueous Suspension  
**Synonyms:** VectoBac 12AS  
**EPA Reg No.:** 73049-38  
**Code Number:** 15576, 15577, 15578, 21894, 83872, A515579 and A585873  
**List Number:** 05605  
**Chemical Family:** Not applicable; microbial product

### 1.2 Relevant Identified Uses and Uses Advised Against

**Identified Uses:** 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 LLC  
1910 Innovation Way, Suite 100  
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



## SAFETY DATA SHEET

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### VectoBac® 12AS Biological Larvicide Aqueous Suspension

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

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

#### Precautionary Statement:

##### Prevention

Not required

##### Response

Not required

##### Disposal

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

#### 2.3 Other Hazards

None identified.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component Name	Percent
None	<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i>	11.61
Trade Secret	Other Ingredients – withheld as Trade Secret	88.39

### 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. Cover irritated skin with an emollient. If irritation persists 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. Give large quantities of water. 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.



## VectoBac® 12AS Biological Larvicide Aqueous Suspension

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

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

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

Slight eye and skin irritation

**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**

Keep containers cool by spraying with water if exposed to fire.

**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 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.



## SAFETY DATA SHEET

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### VectoBac® 12AS Biological Larvicide Aqueous Suspension

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

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

#### 6.2 Environmental Precautions

Dispose of excess product and washwaters according to local regulations.

#### 6.3 Methods and Materials for Containment and Cleaning Up

Recover product with inert material (earth, sand, vermiculite), place into appropriate container for disposal. 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 and Incompatibilities

Store in a cool, dry place. For further information refer to local country registration and label.

#### Incompatibilities

None Known

#### 7.3 Specific End Use(s)

Mosquito Larvicide.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control Parameters

##### Component Exposure Limits

None Established

##### Derived No Effect Levels (DNELs)

No DNELs available

##### Predicted No Effect Concentrations (PNECs)

No PNECs available

## VectoBac® 12AS Biological Larvicide Aqueous Suspension

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

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

**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:	Light brown liquid	Odor:	Malt-like
pH:	5.0 (1% w/v susp)	Odor Threshold:	Not Determined
Melting Point:	Not Determined	Boiling Point:	Not Determined
Specific Gravity:	Not Determined	Solubility (H <sub>2</sub> O):	Not Determined
Relative Density:	1.06 g/cm <sup>3</sup> @ 20 °C	Evaporation Rate:	Not Determined
Octanol/H <sub>2</sub> O Coeff:	Not Determined	Decomposition Temp.:	Not Determined
Vapor Density:	Not Determined	Vapor Pressure:	Not Determined
VOC:	Not Determined	Flammability Class:	Not 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**

Keep away from incompatible substances.

## VectoBac® 12AS Biological Larvicide Aqueous Suspension

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

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

**10.5 Incompatible Materials**

Diluted or undiluted product can cause corrosion if left in prolonged contact with aluminum surfaces (e.g. spray equipment, aircraft components).

**10.6 Hazardous Decomposition Products**

Carbon oxides and unidentified organic compounds.

**11. TOXICOLOGICAL INFORMATION****11.1 Information on Toxicological Effects****Acute Effects – Product Toxicology Studies**

Oral Toxicity: LD<sub>50</sub> > 5,000 mg/kg (rat)

Dermal Toxicity: LD<sub>50</sub> > 5,000 mg/kg (rabbit)

Inhalation Toxicity: LC<sub>50</sub> > 5.34 mg/L air

Corrosiveness: Not corrosive to humans, can be corrosive to aluminum.

Dermal Irritation: slightly-irritating, (category IV)

Ocular Irritation: slightly-irritating, (category IV)

Dermal Sensitization: Not a skin sensitizer (mice)

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 a teratogenic compound.

Special Target Organ: Not Applicable

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: LC<sub>50</sub> >370 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: LC<sub>50</sub> >50 mg/L (48-H) (Daphnia)

Bees: Essentially non-toxic to honey bees.

**12.2 Persistence and Degradability**

No data available

**12.3 Bioaccumulation potential**

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



## SAFETY DATA SHEET

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### VectoBac® 12AS Biological Larvicide Aqueous Suspension

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

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

#### 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 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: Not Listed  
CERCLA STATUS: Not regulated as hazardous  
SARA STATUS: Acute: No Chronic: No Fire: No CDT: No  
RCRA STATUS: Not regulated as hazardous



## SAFETY DATA SHEET

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### VectoBac® 12AS Biological Larvicide Aqueous Suspension

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

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

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 FIFRA – Pesticide Labeling

EPA registration Number 73049-38

EPA Pesticide Label signal word: CAUTION

Product must have EPA Approved Pesticide Label attached 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.

#### **KEEP OUT OF REACH OF CHILDREN PRECAUTIONARY STATEMENT HAZARD TO HUMANS AND DOMESTIC ANIMALS CAUTION**

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing 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.

#### **PHYSICAL AND CHEMICAL HAZARDS**

Diluted or undiluted VectoBac 12AS can cause corrosion if left in prolonged contact with aluminum spray system components. Rinse spray system with plenty of clean water after use. Care should be taken to prevent contact with aluminum aircraft surfaces, structural components and control systems. In case of contact, rinse thoroughly with plenty of water. Inspect aluminum aircraft components regularly for signs of corrosion.

#### **DIRECTIONS FOR USE**

It is in violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply directly to treated finished drinking water reservoirs or drinking water receptacles when water is intended for human consumption.

## VectoBac® 12AS Biological Larvicide Aqueous Suspension

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

[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.

Storage: Store in a cool, [less than 86°F (30° C)] dry place.

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

Container Disposal: 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. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling or puncture and dispose of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Do not reuse container.

**16. OTHER INFORMATION****NFPA Hazard Ratings**

Health: N/D  
Flammability: N/D  
Instability: N/D

**HMIS Hazard Ratings**

Health: N/D  
Flammability: N/D  
Instability: N/D

0 = minimal  
1 = slight  
2 = moderate  
3 = serious  
4 = Extreme

REASON FOR ISSUE: Added new toxicity study to Section 11, changed classification, symbol and Prevention/Response in Section 2.

APPROVAL DATE: 01/06/20

SUPERSEDES DATE: 04/12/19

LEGEND: N/A = Not Applicable  
N/L = Not Listed  
C = Ceiling

N/D = Not Determined  
L = Listed  
S = Short-term

(R) = Registered Trademark of Valent BioSciences LLC

(TM) = Registered Trademark of Valent BioSciences LLC

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 LLC 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



## SAFETY DATA SHEET

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### VectoBac® 12AS Biological Larvicide Aqueous Suspension

SDS# VBC-0036 Revision 8

ISSUED 01/06/20

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

consistent with applicable law, neither Valent BioSciences LLC 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 LLC 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.



1910 Innovation Way, Suite 100  
Libertyville, IL 60048 – 800-323-9597

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# VectoLex® FG

BIOLOGICAL LARVICIDE

FINE GRANULE

## ACTIVE INGREDIENT:

*Bacillus sphaericus* 2362, Serotype H5a5b, strain ABTS  
1743 fermentation solids, spores, and insecticidal toxins ... 7.5%  
OTHER INGREDIENTS ..... 92.5%  
TOTAL ..... 100.0%

Potency: This product contains 50 BsITU/mg or 0.023 Billion BsITU/lb.  
Expiration Date: (Two years from the date of manufacture).

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

EPA Reg. No. 73049-20

EPA Est. No. 33762-IA-001

List No. 05722

## INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
  - 2.1 Hazard to Humans (and Domestic Animals)
  - 2.2 Environmental Hazards
- 3.0 Directions for Use
- 4.0 Storage and Disposal
- 5.0 Directions for Use - VectoLex FG
  - 5.1 Application Directions
- 6.0 Notice to User

## KEEP OUT OF REACH OF CHILDREN CAUTION

1.0

FIRST AID	
If in eyes	<ul style="list-style-type: none"><li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>Call a poison control center for treatment advice.</li></ul>
If on skin or clothing	<ul style="list-style-type: none"><li>Take off contaminated clothing.</li><li>Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>Call a poison control center or doctor for treatment advice.</li></ul>
If inhaled	<ul style="list-style-type: none"><li>Move person to fresh air.</li><li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.</li><li>Call a poison control center or doctor for further treatment advice.</li></ul>
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.	

## 2.0 PRECAUTIONARY STATEMENTS

### 2.1 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 sensitizations.

### 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.

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.

4.0

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Do not contaminate water when disposing of equipment washwaters.

**Pesticide Storage:** Store in a 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.

## 5.0 DIRECTIONS FOR USE - VECTOLEX FG

### 5.1 Application Directions

#### MOSQUITO CONTROL

VectoLex® FG Biological Larvicide Fine Granule (hereafter referred to as VectoLex FG) is a selective microbial insecticide for use against mosquito larvae in a variety of habitats. VectoLex FG can be applied to areas that contain fish, other aquatic life, and plants. VectoLex FG can be applied to areas used by or in contact with humans, pets, horses, livestock, birds, or wildlife.

CONTINUED

**I. For control of mosquito larvae species\* in the following non-crop sites:**

Habitat	Rate Range
<b>Wastewater:</b> Sewage effluent, sewage lagoons, oxidation ponds, septic ditches, animal waste lagoons, impounded wastewater associated with fruit and vegetable processing.	5-20 lbs/acre**
<b>Stormwater/Drainage Systems:</b> Storm sewers, catch basins, drainage ditches, retention ponds, detention ponds and seepage ponds.	5-20 lbs/acre**
<b>Marine/Coastal Areas:</b> Salt marshes, mangroves, estuaries.	5-20 lbs/acre**
<b>Water Bodies:</b> Natural and manmade aquatic sites such as lakes, ponds, rivers, canals, streams and livestock watering ponds and troughs.	5-20 lbs/acre**
<b>Dormant Rice Fields:</b> Impounded water in dormant rice fields. (For application only during the interval between harvest and preparation of the field for the next cropping cycle.)	5-20 lbs/acre**
<b>Waste Tires:</b> Tires stockpiled in dumps, landfills, recycling plants, and other similar sites.	0.5-2 lbs/ 1000 sq. ft.

**II. For the control of mosquito larvae species\* in the following agricultural/crop sites where mosquito breeding occurs:**

Habitats:	Rate Range
Rice, pastures/hay fields, orchards, citrus groves, irrigated crops.	5-20 lbs/acre**

Apply VectoLex FG uniformly by aerial or conventional ground equipment. Reapply VectoLex FG as needed after 1 to 4 weeks.

\* Mosquito species effectively controlled by VectoLex FG, including many of those known to carry/transmit West Nile virus:

<i>Culex spp.</i>	
<i>Aedes vexans</i>	
<i>Ochlerotatus melanimon</i>	( <i>Aedes melanimon</i> )
<i>Ochlerotatus stimulans</i>	( <i>Aedes stimulans</i> )
<i>Ochlerotatus nigromaculis</i>	( <i>Aedes nigromaculis</i> )
<i>Psorophora columblae</i>	
<i>Psorophora ferox</i>	
<i>Ochlerotatus triseriatus</i>	( <i>Aedes triseriatus</i> )
<i>Ochlerotatus sollicitans</i>	( <i>Aedes sollicitans</i> )
<i>Anopheles quadrimaculatus</i>	
<i>Coquillettidia perturbans</i>	

\*\*Use higher rates (10 to 20 lbs/acre) in areas where extended residual control is necessary, or in habitats having deep water or dense surface cover.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all these factors when making decisions.

**6.0 NOTICE TO USER**

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 this label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in accordance with accompanying directions.



## SAFETY DATA SHEET

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### VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 3

ISSUED 01/08/20

[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 LLC  
1910 Innovation Way, Suite 100  
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



## SAFETY DATA SHEET

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### VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 3

ISSUED 01/08/20

(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	Percent
None	<i>Bacillus sphaericus</i> 2362, serotype H5a5b, strain ABTS 1743 fermentation solids	7.5
Trade Secret	Other ingredients	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.



## SAFETY DATA SHEET

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VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 3

ISSUED 01/08/20

[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

#### 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 3

ISSUED 01/08/20

[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 3**
**ISSUED 01/08/20**

[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 <sub>2</sub> O):	Not Determined
Specific Gravity:	Not Determined	Bulk Density:	Not Determined
Octanol/H <sub>2</sub> 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



## SAFETY DATA SHEET

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### VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 3

ISSUED 01/08/20

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

#### 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

Ingestion: No

Inhalation: No

##### ACUTE EFFECTS Product Toxicology Studies

ORAL TOXICITY: LD<sub>50</sub> > 5,000 mg/kg

DERMAL TOXICITY: LD<sub>50</sub> > 2,000 mg/kg

INHALATION TOXICITY: LC<sub>50</sub> > 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: LC<sub>50</sub> >15.5 mg/L (96-H, Rainbow Trout)

LC<sub>50</sub> >15.5 mg/L (96-H, Blue Gill)

Bird: LC<sub>50</sub> >9g /kg (Acute Oral - Mallard)

Invertebrates: EC<sub>50</sub> >15.5 (48-H) (Daphnia)

Bees: Essentially non-toxic to bees



## VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 3

ISSUED 01/08/20

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

**12.2 Persistence and Degradability**

No data available

**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/ICAO STATUS: Not Regulated  
PROPER SHIPPING NAME: N/A  
REMARKS: N/A

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



## SAFETY DATA SHEET

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VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 3

ISSUED 01/08/20

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

### 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: 73049-20

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.



## SAFETY DATA SHEET

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### VectoLex® FG Biological Larvicide

SDS# VBC-0046 Revision 3

ISSUED 01/08/20

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

#### 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 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: 0

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

REASON FOR ISSUE: Address Change

APPROVAL DATE: 01/08/20

SUPERSEDES DATE: 09/12/18

LEGEND: N/A = Not Applicable

N/L = Not Listed

C = Ceiling

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N/D = Not Determined

L = Listed

S = Short-term



## SAFETY DATA SHEET

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### VectoLex® FG Biological Larvicide

**SDS# VBC-0046 Revision 3**

**ISSUED 01/08/20**

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

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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.



1910 Innovation Way, Suite 100  
Libertyville, IL 60048 – 800-323-9597

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# VectoMax<sup>®</sup> WSP

BIOLOGICAL LARVICIDE

WATER SOLUBLE POUCH



FOR ORGANIC PRODUCTION

MADE WITH

BioFuse<sup>™</sup>

TECHNOLOGY

## ACTIVE INGREDIENTS:

*Bacillus sphaericus* 2362, Serotype H5a5b,  
Strain ABTS 1743 Fermentation Solids, Spores,  
and Insecticidal Toxins ..... 2.7%

*Bacillus thuringiensis* subsp. *israelensis* 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 BslTU/mg or 0.023  
Billion BslTU/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

US Patent No. 7,989,180, US Patent No. 8,454,983

## INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
  - 2.1 Hazards to Humans and Domestic Animals
  - 2.2 Environmental Hazards
- 3.0 Directions for Use
- 4.0 Application Directions
- 5.0 Storage and Disposal
- 6.0 Warranty and Disclaimer

KEEP OUT OF REACH OF CHILDREN

CAUTION

## 1.0

### FIRST AID

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

### 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.

## 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.

Once the foil bag containing VectoMax<sup>®</sup> WSP Biological Larvicide Fine Granule is opened, use pouches within one day.

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.

Continued

**APPLICATION DIRECTIONS****MOSQUITO CONTROL**

VectoMax WSP Biological Larvicide Fine Granule (hereafter referred to as 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	Application Rate
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**Drainage/Drainage Systems<sup>1</sup>:**

Catch basins and storm drains.	1 water soluble pouch/for up to 50 sq ft
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**Treatment Areas (For Use In)<sup>2</sup>:**

Ponds	Retention, detention and seepage ponds	Abandoned swimming pools
Lagoons	Animal waste lagoons	Unused swimming pools or spas
Hollow trees and tree holes	Flood water	Flooded basements
Ums	Standing water	Pool covers
Rain barrels	Storm water	Gutters and drains
Livestock watering troughs/ponds/tanks	retention areas	Wheelbarrows
Irrigation ditches	Birdbaths	Garbage cans and covers
Roadside ditches	Fountains	Discarded tires
Water gardens	Flowerpots and planters	
Impounded wastewater associated with fruit and vegetable processing	Snowmelt pools	
	Septic tanks	

Any location where water accumulates and remains standing for periods of time, except treated, finished water reservoirs or drinking water receptacles when the water is intended for human consumption

<sup>1</sup> 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 VectoMax WSP as needed (after 6-8 weeks under typical environmental conditions).

<sup>2</sup> 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 VectoMax WSP as needed (after 1-4 weeks under typical environmental conditions).

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.

**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:** Offer foil pouch for recycling if available or dispose of empty pouch in the trash as long as the water soluble pouch is unbroken.

**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. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

VectoMax is a registered trademark of Valent BioSciences Corporation.



## SAFETY DATA SHEET

1 of 11

VectoMax® FG Biological Larvicide Fine Granules

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[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; VBC-60035

**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 LLC  
1910 Innovation Way, Suite 100  
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



## SAFETY DATA SHEET

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VectoMax® FG Biological Larvicide Fine Granules

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

[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	Percent
None	<i>Bacillus sphaericus</i> 2362, strain ABTS-1743	2.7
None	<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> , strain AM65-52	4.5
Trade Secret	Other ingredients	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.



## VectoMax® FG Biological Larvicide Fine Granules

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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.

**VectoMax® FG Biological Larvicide Fine Granules****SDS# VBC-0018 Revision 4****ISSUED 01/03/20**

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

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

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

**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

**VectoMax® FG Biological Larvicide Fine Granules**

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

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

**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.

**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		



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VectoMax® FG Biological Larvicide Fine Granules

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

### 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

##### 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, (EPA Tox Category IV)

OCULAR IRRITATION: Mildly-irritating, (EPA Tox Category IV)

DERMAL SENSITIZATION: Not a sensitizer (guinea pig)

**VectoMax® FG Biological Larvicide Fine Granules****SDS# VBC-0018 Revision 4****ISSUED 01/03/20**

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

**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)

**(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



## SAFETY DATA SHEET

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VectoMax® FG Biological Larvicide Fine Granules

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### 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

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



## **SAFETY DATA SHEET**

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### **VectoMax® FG Biological Larvicide Fine Granules**

**SDS# VBC-0018 Revision 4**

**ISSUED 01/03/20**

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

#### **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.

#### **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.



## SAFETY DATA SHEET

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VectoMax® FG Biological Larvicide Fine Granules

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

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

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: 0  
Flammability: 0  
Instability: 0

#### HMIS Hazard Ratings

Health: 0  
Flammability: 0  
Instability: 0

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

REASON FOR ISSUE: Address Change

APPROVAL DATE: 01/03/20

SUPERSEDES DATE: 02/28/18

LEGEND: N/A = Not Applicable

N/L = Not Listed

C = Ceiling

(R) = Registered Trademark of Valent BioSciences LLC

(TM) = Registered Trademark of Valent BioSciences LLC

N/D = Not Determined

L = Listed

S = Short-term





## SAFETY DATA SHEET

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### VectoMax® FG Biological Larvicide Fine Granules

SDS# VBC-0018 Revision 4

ISSUED 01/03/20

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

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 LLC 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 LLC 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 LLC 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.



1910 Innovation Way, Suite 100  
Libertyville, IL 60048 – 800-323-9597

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# VectoPrime® FG

BIOLOGICAL LARVICIDE

FINE GRANULE



## ACTIVE INGREDIENT:

*Bacillus thuringiensis*, subsp. *israelensis*, strain AM 65-52

fermentation solids, spores, and insecticidal toxins ..... 6.07%

(S)-methoprene ..... 0.10%

OTHER INGREDIENTS ..... 93.83%

TOTAL ..... 100.00%

Potency: 400 International Toxic Units (ITU) per mg or 0.182 billion ITU per pound

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

EPA Reg. No. 73049-501

EPA Est. No. 33762-IA-001

List No. 05725

## INDEX:

- 1.0 First Aid
- 2.0 Precautionary Statements
  - 2.1 Hazard to Humans and Domestic Animals
  - 2.2 Environmental Hazards
- 3.0 Directions for Use
- 4.0 Application Directions
- 5.0 Storage and Disposal
- 6.0 Notice to User

## KEEP OUT OF REACH OF CHILDREN CAUTION

### 1.0

FIRST AID	
If in eyes	<ul style="list-style-type: none"><li>• Hold eyes open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
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.	

### 2.0 PRECAUTIONARY STATEMENTS

#### 2.1 Hazards To Humans and Domestic Animals

##### CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist 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.

#### 2.2 Environmental Hazards

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. 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.

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.

### 4.0 APPLICATION DIRECTIONS

VectoPrime® FG Biological Larvicide is an insecticide for use against mosquito larvae.

Mosquito Habitats	Application Rate Range*
-------------------	-------------------------

(Such as the following examples):

Irrigation ditches, roadside ditches, flood water, standing ponds, livestock watering ponds and troughs, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas, tidal water, salt marshes and rice fields	1.25 - 20.0 lbs/acre*
--	-----------------------

In addition, standing water containing mosquito larvae, in fields growing crops such as (but not limited to) alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches, sugar cane and walnuts may be treated at the recommended rates.

#### \* Post-flood Applications

Use 1.25-4.0 lbs/acre against 1st-4th instar mosquito larvae. Use 4.0-10.0 lbs/acre when water is heavily polluted (e.g. sewage lagoons, animal waste lagoons), algae are abundant, and/or local experience suggests the need for higher rates. Re-treat as needed based on local conditions.

#### \* Pre-flood Applications

VectoPrime FG can be applied prior to flooding of mosquito larval habitats. Use 10-20 lbs/acre when up to 7 days pre-flood capacity is needed. Use 20 lbs/acre when a 7-14 day pre-flood application is needed. Retreat as needed. Consult your local Valent BioSciences representative for further advice on pre-flood applications with VectoPrime FG.

CONTINUED

#### 4.0 APPLICATION DIRECTIONS (Cont'd)

Apply uniformly by aerial or ground conventional equipment. Avoiding drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for drift. The applicator and the treatment coordinator are responsible for considering all of these factors when making decisions.

#### 5.0 STORAGE AND DISPOSAL

Do not contaminate potable 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. 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.

#### 6.0 NOTICE TO USER

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

VectoPrime is a registered trademark of Valent BioSciences Corporation.



## SAFETY DATA SHEET

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VectoPrime® FG Biological Larvicide Fine Granules

SDS# VBC-0054 Revision 3

ISSUED 01/15/2020

[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:** VectoPrime® FG Biological Larvicide Fine Granules

**Synonyms:** VBC-60394

**EPA Reg No.:** 73049-501

**Code Number:** None

**List Number:** 05725

**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 LLC  
1910 Innovation Way, Suite 100  
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)**

None required

**Signal Word**

WARNING

**Hazard Statement(s)**

None



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### VectoPrime® FG Biological Larvicide Fine Granules

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ISSUED 01/15/2020

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

#### 2.3 Precautionary Statement:

##### Prevention

Wash hands and face thoroughly after handling.  
Avoid breathing dust.

##### 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 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	Percent
None	<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> , strain AM65-52	6.07
65733-16-6	S-Methoprene	0.10
Trade Secret	Other ingredients	93.83

### 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.

**VectoPrime® FG Biological Larvicide Fine Granules****SDS# VBC-0054 Revision 3****ISSUED 01/15/2020**

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

**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

**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 impervious gloves.



## SAFETY DATA SHEET

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### VectoPrime® FG Biological Larvicide Fine Granules

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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





## SAFETY DATA SHEET

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### VectoPrime® FG Biological Larvicide Fine Granules

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

#### 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:	Brown granular	Odor:	Very little odor
pH:	5.0 (1% w/v)	Boiling Point:	Not Determined
Melting Point:	Not Applicable	Solubility (H <sub>2</sub> O):	Not Determined
Specific Gravity:	Not Determined	Bulk Density:	Not Determined
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:	Not Determined
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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[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

### 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> > 5,050 mg/kg (rabbit)

INHALATION TOXICITY: LC<sub>50</sub> > Unable to generate sufficient respirable particles

CORROSIVENESS: Not corrosive.

DERMAL IRRITATION: Not irritating, (Category IV)

OCULAR IRRITATION: Minimally 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 S-Methoprene Technical Powder)

Fish: LC<sub>50</sub> >4.26 mg/L (96-H, Zebra Fish); NOEC: 1.25 mg/L

Algae: EC<sub>50</sub> >2.264 mg/L (48-H)

Invertebrates: EC<sub>50</sub> >0.22 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 73049-501

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 HAZARD TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist 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 contaminate water when cleaning equipment or disposing of equipment washwaters.

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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### VectoPrime® FG Biological Larvicide Fine Granules

SDS# VBC-0054 Revision 3

ISSUED 01/15/2020

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

#### 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 potable water, food, or feed by storage or disposal.

**Storage:** Store in 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: 0  
Flammability: 0  
Instability: 0

##### HMIS Hazard Ratings

Health: 0  
Flammability: 0  
Instability: 0

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

REASON FOR ISSUE: Address Change

APPROVAL DATE: 01/15/2020

SUPERSEDES DATE: 03/23/2018

LEGEND: N/A = Not Applicable

N/L = Not Listed

C = Ceiling

(R) = Registered Trademark of Valent BioSciences LLC

(TM) = Registered Trademark of Valent BioSciences LLC

N/D = Not Determined

L = Listed

S = Short-term



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### VectoPrime® FG Biological Larvicide Fine Granules

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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 LLC 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 LLC 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 LLC 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.



1910 Innovation Way, Suite 100  
Libertyville, IL 60048 – 800-323-9597

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# ANVIL<sup>®</sup> 2+2 ULV

Contains an Oil Soluble Synergized Synthetic Pyrethroid for Control of Adult Mosquitoes (Including Organophosphate-Resistant Species) Midges, and Black Flies in Outdoor Residential and Recreational Areas.

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 adult mosquito control applications, or by persons under their direct supervision.

## ACTIVE INGREDIENTS:

3-Phenoxybenzyl-(1RS, 3RS; 1RS, 3SR)-2,2-dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxylate .....	2.00%
*Piperonyl Butoxide .....	2.00%
**OTHER INGREDIENTS .....	96.00%
	100.00%

Contains 0.14 lbs. Technical SUMITHRIN®/Gallon and 0.14 lbs. Piperonyl Butoxide/Gallon

\* (butylcarbityl)(6-propylpiperonyl) ether and related compounds

\*\*Contains a petroleum distillate

## KEEP OUT OF REACH OF CHILDREN

## CAUTION

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicado ampliamente

### FIRST AID

IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
IF SWALLOWED:	<ul style="list-style-type: none"><li>• Immediately call a poison control center or doctor.</li><li>• Do not induce vomiting unless told to do so by a poison control center or a doctor.</li><li>• Do not give any liquid to the person.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>

### NOTE TO PHYSICIAN

Contains petroleum distillate - vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents, call 1-888-740-8712.

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Harmful if absorbed through the skin. Avoid contact with skin, eyes and 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.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are: barrier laminate or Viton. Mixers, loaders, applicators, and other handlers must wear long-sleeve shirt, long pants, shoes and socks. In addition, all handlers except for applicators using motorized ground equipment, pilots, and flaggers, must wear chemical-resistant gloves. See engineering controls for additional requirements.

### USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

### ENGINEERING CONTROLS

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker

Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

### USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. User should remove clothing/PPE immediately if pesticide gets inside, then wash thoroughly and put on clean clothing. User should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material beyond the body of water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or wash waters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply to or allow drift onto blooming crops or weeds when bees are visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations; or if specifically approved by the state or tribe during a natural disaster recovery effort.

### PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

### DIRECTIONS FOR USE

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

### USE RESTRICTIONS:

**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 only.

**IN FLORIDA:** Aerial applications of this product require trained personnel to perform industry accepted assays to monitor resistance formation in targeted mosquitoes.

Do not treat a site with more than 0.0036 pounds of Sumithrin® or piperonyl butoxide per acre in a twenty-four hour period. Do not exceed 0.1 pounds of Sumithrin® or piperonyl butoxide per acre in any site in one year. More frequent applications may be made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

**NOTE:** When rotating products with other insecticides containing PBO, do not exceed 2 lbs PBO per acre per year.

Not for use in outdoor residential misting systems.

### USE INFORMATION:

**USE AREAS:** For use in mosquito adulticiding programs involving outdoor residential and recreational areas where adult mosquitoes are present in annoying numbers in vegetation surrounding parks, woodlands, swamps, marshes, overgrown areas and golf courses. ANVIL 2+2 ULV may be applied over agricultural areas for the control of adult mosquitoes within or adjacent to these areas.

For best results, apply when mosquitoes are most active and weather conditions are conducive to keeping the fog close to the ground. Application in calm air conditions is to be avoided. Apply only when ground wind speed is greater than 1 mph. Air temperature should be greater than 50 °F when conducting all types of applications.

NOTE: ANVIL 2+2 ULV cannot be diluted in water. Dilute this product with light mineral oil if dilution is preferred.

#### SPRAY DROPLET SIZE DETERMINATION

**Ground Equipment:** Spray equipment must be adjusted so that the volume median diameter (VMD) is less than 30 microns ( $D_v 0.5 < 30 \mu m$ ) and that 90% of the spray is contained in droplets smaller than 50 microns ( $D_v 0.9 < 50 \mu m$ ). Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

**Aerial Equipment:** Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns ( $D_v 0.5 < 60 \mu m$ ) and that 90% of the spray is contained in droplets smaller than 80 microns ( $D_v 0.9 < 80 \mu m$ ). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

#### GROUND ULV APPLICATION

Apply ANVIL 2+2 ULV through a standard ULV cold aerosol or non-thermal aerosol (cold fog) generator. Consult the following table for examples of various dosage rates using a swath width of 300 feet for acreage calculations. Vary flow rate according to vegetation density and mosquito population. Use higher flow rate in heavy vegetation or when pest populations are high.

ANVIL 2+2 ULV may also be applied undiluted with non-thermal, portable, motorized backpack equipment adjusted to deliver ULV particles of less than 100 microns VMD. Use 1.081 to 3.245

Dosage Rate (Lbs. Sumithrin® / acre)	Fl.oz. ANVIL 2+2 ULV per Acre	Flow Rates in fluid oz./minute at truck speeds of:			
		5 MPH	10 MPH	15 MPH	20 MPH
0.0036	3.245	9.8	19.7	29.5	39.3
0.0024	2.163	6.6	13.1	19.7	26.2
0.0012	1.081	3.3	6.6	9.8	13.1

fl. oz. of the undiluted spray per acre (equal to 0.0012 to 0.0036 lb. a.i./acre) as a 50 ft. (15.2 m) swath while walking at a speed of 2 mph (3.2 kph). Do not use hand held equipment for this type of application in enclosed spaces.

ANVIL 2+2 ULV may be applied through truck mounted thermal fogging equipment. Do not exceed the maximum rates listed above. May be applied at speeds of 5 to 20 mph. To reduce oil requirement and sludge buildup in equipment, use 100-second viscosity mineral "fog" oil. For use with hand-carried foggers, use same rates of active ingredient per acre. Do not wet foliage since oil base formulations may be phytotoxic. Use a clean, well-maintained and properly calibrated fogger. Fog downwind. Do not use hand held equipment for this type of application in enclosed spaces.

#### AERIAL APPLICATION

ANVIL 2+2 ULV may be applied at rates of 1.081 to 3.245 fluid ounces ANVIL 2+2 ULV per acre by fixed wing or rotary aircraft equipped with suitable ULV application equipment.

**RELEASE HEIGHT FOR AERIAL:** Fixed Wing: Apply using a nozzle height of no less than 100 feet above the ground or canopy. Rotary Wing: Apply using a nozzle height of no less than 75 feet above the ground or canopy.

### STORAGE AND DISPOSAL

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

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

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** 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 1/4 full with mineral oil and recap. Shake for 10 seconds. Pour rinsate into application equipment or a rinse 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. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**CONTAINER DISPOSAL:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into rinsate collection system. Repeat this rinsing procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**NOTICE:** To the extent provided by law, Seller makes no warranty, expressed or implied, concerning the use of this product other than as indicated on the label. Buyer assumes all risk of use and/or handling of this material when use and/or handling is contrary to label instructions.

ANVIL™ is a Trademark of Clarke Mosquito Control Products, Inc.  
Sumithrin® is a Trademark of Sumitomo Company, Ltd.

**Manufactured For:**  
CLARKE MOSQUITO CONTROL PRODUCTS, INC.  
159 N. GARDEN AVENUE  
ROSELLE, ILLINOIS 60172 U.S.A  
FOR MORE INFORMATION CALL: 1-800-323-5727

EPA Reg. No.: 1021-1687-8329

EPA Est. No.: \_\_\_\_\_

NET CONTENTS: [ ] 2.5 GAL [ ] 30 GAL [ ] 55 GAL [ ] 275 GAL

LOT No.: \_\_\_\_\_





# SAFETY DATA SHEET

**ANVIL® 2 + 2 ULV**

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## SECTION 1. Identification of the Substance/Mixture and of the Company

### Product Identifier

Formulation Identifier: ANVIL® 2 + 2 ULV  
EPA Registration Number: 1021-1687-8329

### Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant identified uses: Insecticide for control of adult mosquitoes.  
Uses advised against: See product label for use restrictions

### Details of the Supplier

Clarke Mosquito Control Products, Inc.  
675 Sidwell Court  
St. Charles, IL 60174 U.S.A.  
+1 (630) 894-2000  
Email: Clarke@clarke.com

### Emergency Telephone Number

24 Hour MEDICAL Emergency: SafetyCall®: (888) 740-8712 or (952) 852-9509  
24 Hour TRANSPORTATION Emergency: CHEMTREC®: (800)-424-9300  
International: (703) 527-3887

## SECTION 2. Hazards identification

United States (US)  
According to OSHA 29 CFR 1910.1200 HCS (2012)

### Classification of the Substance or Mixture

Acute Toxicity (Inhalation): Category 4  
Aspiration Toxicity: Category 1

Pictogram:



Signal Word: DANGER

Hazard Statements: Harmful if inhaled  
May be fatal if swallowed and enters airways.

### Precautionary Statements:

PREVENTION: Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in well-ventilated area

RESPONSE: IF SWALLOWED: IMMEDIATELY call a poison center/doctor. Do NOT induce vomiting.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Call a poison center/doctor if you feel unwell.

STORAGE: Store locked up.

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

Other Hazards Not Classifiable Under OSHA 2012 HCS - Not applicable



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## SECTION 3. Composition/Information on Ingredients

### Components

Substance Name	CAS No.	Concentration % w/w
SUMITHRIN® (d-Phenothrin)	26002-80-2	2.0
Piperonyl Butoxide (PBO)	51-03-6	2.0
Petroleum distillates, hydrotreated light	64742-47-8	25 – 40 *
White mineral oil	8042-47-5	60 – 75 *

\* The exact percentage (concentration) of composition has been withheld as trade secret.

Ingredients not identified are non-hazardous and/or are not required to be disclosed pursuant to 29 CFR 1910.1200 (2012), and are withheld as trade secret.

## SECTION 4. First Aid Measures

### Description of First Aid Measures

General advice: If symptoms develop or persist, or for treatment advice, call a poison control center or doctor.

If in eyes: 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.

If on skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

If swallowed: IMMEDIATELY call a poison control center or doctor for treatment advice. DO NOT give any liquid to the person. Do NOT induce vomiting unless told to do so by a poison control center or doctor. Never give anything by mouth to an unconscious person.

If inhaled: Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration; if by mouth-to-mouth use rescuer protection (pocket mask, etc.). Call a poison control center or doctor if you feel unwell.

### Most Important Symptoms and Effects, both Acute and Delayed

The most important known symptoms and effects are described in section 2 and/or in section 11.

### Indication of Immediate Medical Attention and Special Treatment

Treatment: Contains petroleum distillate- vomiting may cause aspiration pneumonia.

For skin effects, a highly efficient therapeutic agent for Pyrethrin/Pyrethroid exposure is topical application of Tocopherol Acetate (Vitamin E).

## SECTION 5. Fire-Fighting Measures

### Extinguishing Media

Suitable Extinguishing Media: Water Fog, Carbon Dioxide (CO<sub>2</sub>), Dry Chemical, foam

Unsuitable Extinguishing Media: Do not use water jet.

### Special Hazards Arising From the Substance or Mixture

Specific Hazards: No information available.

### Explosion data:

Sensitivity to Mechanical Impact: None

Sensitivity to static discharge: None

### Special Protective Equipment and Precautions for Fire-Fighters

Protection against fire: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Special Procedures: Treat as oil fire. Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Dike for later disposal. Use extinguishing agents



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appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

## SECTION 6. Accidental Release Measures

### Personal Precautions, Protective Equipment and Emergency Procedures

**General Precautions:** Use appropriate protection (see section 8). Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment as required.

**Environmental Precautions:** Prevent product from entering into drains and waterways. Collect and dispose of this material and its container in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities.

### Methods and Material for Containment and Cleaning Up

**Methods for containment:** Prevent further leakage of spillage if safe to do so. Move containers from spill area.

**Small spill:** Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

**Large Spill:** Prevent entry into sewers, water courses, basements or confined areas. Dam up and soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## SECTION 7. Handling and Storage

### Precautions for Safe Handling

**Advice on safe handling:** Use with local exhaust ventilation. Use personal protective equipment as required. Avoid breathing mist/vapors/spray.

**Handling:** Keep out of reach of children. Do not take internally. Avoid contact with skin and eyes.

**Hygiene Measures:** Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove soiled clothing immediately and clean thoroughly before using again.

### Conditions for Safe Storage, Including Any Incompatibilities

**Storage Conditions:** Store locked up. Store in accordance with local regulations. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilizers. Keep in properly labeled containers.

## SECTION 8. Exposure Controls / Personal Protection

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

### Control Parameters

Component Name	CAS No.	List	Type	Value
Petroleum Distillates	64742-47-8	ACGIH	TLV/TWA (skin exposure)	200 mg/m <sup>3</sup>
Mineral Oil	8042-47-5	OSHA & ACGIH	PEL / TLV, TWA (oil mist)	5 mg/m <sup>3</sup>

### Exposure controls

**Engineering Controls:** Use with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Wash hands thoroughly after handling. Wash clothing before re-using.

**Individual Protection Measures, such as Personal Protection Equipment:**

**Eye Protection:** Safety Glasses, Goggles or Face Shield

**Skin Protection:** Wear suitable protective gloves and clothing including long-sleeve shirt, long pants, shoes and socks.



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**Hand Protection:** It is good industrial hygiene practice to minimize skin contact. If required or preferred, use suitable protective chemical resistant gloves such as latex, nitrile, or neoprene.

**Respiratory Protection:** None required. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

## SECTION 9. Physical and Chemical Properties

### Information on Basic Physical and Chemical Properties

Appearance:	Clear, Liquid
Color:	Colorless (1.0 Gardner Scale)
Odor:	Solvent, mineral oil
Odor Threshold:	No information available
pH:	No information available, immiscible in water
Melting Point:	No information available
Freezing Point:	No information available
Initial Boiling Point:	No information available
Flash Point:	>93.3°C (>200°F), Tag Closed Cup
Evaporation Rate:	No information available
Flammability:	No information available
Explosion limits [U/L]:	No information available
Vapor Pressure:	No information available
Vapor Density (Air =1):	Heavier than air
Density:	7.10 lbs./gal
Specific Gravity (Water = 1)	0.850 @ 20°C
Solubility:	Immiscible in water
Partition Coefficient:	No information available
Auto-Ignition Temperature:	No information available
Dynamic Viscosity:	15.5 cPs @ 24.0°C (Brookfield)
Decomposition Temperature:	No information available
Explosive Properties:	No information available
Oxidizing Properties:	No information available
VOC Content (%):	< 1.0

## SECTION 10. Stability and Reactivity

### Reactivity

No data available

### Chemical Stability

Stable under recommended normal storage conditions

### Possibility of Hazardous Reactions

Hazardous Reactions:	None under normal conditions
Hazardous Polymerization:	Hazardous polymerization does not occur

**Conditions to avoid** Extremes of temperature and direct sunlight

**Incompatible materials** Not compatible with strong acids and bases. Not compatible with oxidizing agents.

### Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)



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## SECTION 11. Toxicological Information

### Information on Likely Routes of Exposure

Routes of entry: Oral, Dermal and Inhalation

May be fatal if swallowed and enters airways due to petroleum distillate. Vomiting may cause aspiration pneumonia.

### Information on Toxicological Effects

#### Acute Toxicity / Effects

Assessment of acute toxicity: Slightly toxic after ingestion. Relatively non-toxic after short-term inhalation. Moderately toxic after short term skin contact.

Oral, (Rat) LD<sub>50</sub> > 5,000 mg/kg

Dermal, (Rabbit) LD<sub>50</sub> > 2,000 mg/kg

Inhalation, Rat LC<sub>50</sub> > 3.76 mg/l (4 hours)

Skin Corrosion/Irritation: Irritation cleared in 72 hours, skin irritation index 0.04

Serious Eye Damage/Irritation: Minor irritation clearing in 48 hours

Skin Sensitization: Not a sensitizer (Buehler, Guinea Pig)

Conditions aggravated by exposure: None known

#### Chronic Toxicity / Effects

Assessment of repeated dose toxicity: No significant signs or symptoms indicative of any adverse health effects are expected to occur.

Germ Cell Mutagenicity This product has not been tested. The statement has been derived from the properties of the individual components. No data is available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not carcinogenic. This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures to PBO. The significance of these observations is undetermined and under review. The doses at which tumors were observed for PBO greatly exceeded potential exposure from labeled uses.

Reproductive Effects: This product has not been tested. The statement has been derived from the properties of the individual components. No data is available to indicate product or any components present at greater than 0.1% produce a fertility impairing effect. No indication of a developmental toxic / teratogenic effect.

STOT – Single exposure Not classified

STOT – Repeated exposure Not classified

## SECTION 12. Ecological Information

### Ecotoxicity:

Product specific data is not available. Data referenced is in relation to active ingredients, d-Phenothrin and PBO

Toxicity to Fish: d-Phenothrin 96-hr Acute LC<sub>50</sub> 16.7 µg/L (rainbow trout), 15.8 µg/L (bluegill sunfish)  
PBO: 96-hour Acute LC<sub>50</sub> 6/12 ppm (rainbow trout)

Toxicity to Aquatic Invertebrates: d-Phenothrin 48-hr LC<sub>50</sub> 4.4 µg/L *Daphnia magna*  
d-Phenothrin 48-hr LC<sub>50</sub> 0.025 µg/L *Mysidopsis bahia*  
PBO: 96-hr LC<sub>50</sub> 0.49 ppm, *Americamysis bahia*

Toxicity to Plants: No data available

### Persistence and Degradability

Product specific data not available. Data referenced is in relation to the active ingredients, d-Phenothrin and PBO

Biodegradability: Not readily biodegradable (by OECD criteria)



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Bioconcentration Factor: d-Phenothrin: 592 (edible), 4,000 (non-edible)  
PBO: 2, 175

Log Kow: d-Phenothrin: 6  
PBO: 4.95

Depuration: d-Phenothrin, PBO: 2-4 days

Mobility in Soil: d-Phenothrin has low water solubility and binds tightly to soil. Based on these properties, d-phenothrin is relatively immobile in soil and its potential to contaminate groundwater is low.  
PBO is not very soluble in water and adheres moderately to soil with organic matter.

## SECTION 13. Disposal Considerations

### Waste Treatment and Disposal methods

Pesticide wastes are regulated. Consult product label for chemical substance and container disposal instructions. Avoid release to the environment. Improper disposal of excess product or rinsate is a violation of Federal law. If these wastes cannot be disposed or by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA regional office for guidance.

Container disposal: Rinse thoroughly in accordance with label instructions.

## SECTION 14. Transport Information

### DOT (US)

In Non-Bulk quantities (i.e. less than or equal to 119 Gallons / 450 Liters): Not regulated

In Bulk quantities (more than 119 Gallons/ 450 Liters):

UN Number: UN3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (d-PHENOTHRIN)

Hazard Class: 9

Packing Group: III

Marine Pollutant: Yes

### IMDG (Vessel)

UN Number: UN3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (d-PHENOTHRIN)

Hazard Class: 9

Packing Group: III

Marine Pollutant: Yes

### ICAO/IATA (Air transport)

UN Number: UN3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (d-PHENOTHRIN)

Hazard Class: 9

Packing Group: III

Marine Pollutant: Yes

## SECTION 15. Regulatory Information

**FIFRA Information:** This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal word: CAUTION

KEEP OUT OF REACH OF CHILDREN



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**PRECAUTIONARY STATEMENTS: HAZARDS TO HUMANS AND DOMESTIC ANIMALS:** Caution. Harmful if absorbed through the skin. Avoid contact with skin, eyes, and 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.

**Personal Protective Equipment (PPE):** Some materials that are chemical-resistant to this product are: barrier laminate or Viton. Mixers, loaders, applicators, and other handlers must wear long-sleeve shirt, long pants, shoes and socks. In addition, all handlers except for applicators using motorized ground equipment, pilots, and flaggers, must wear chemical-resistant gloves. See engineering controls for additional requirements.

**User safety requirements:** Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

**Engineering controls:** Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

## FIRST AID

If on skin or clothing: 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.

If swallowed: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or a doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

Note to physician: Contains petroleum distillate. Vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents call 1-888-740-8712.

## Other Federal regulations

### SARA TITLE III CLASSIFICATION

Section 302: None

Section 311/312: Immediate (acute) health hazard

Section 313: This product contains the following chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

CAS Number	Chemical Name	% by wt.
26002-80-2	d-phenothrin	2.0
51-03-6	piperonyl butoxide	2.0

CERCLA RQ: None

## US California Proposition 65: Not listed

**STATE RIGHT-TO-KNOW:** National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

**OSHA HAZARD COMMUNICATION STANDARD:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

## SECTION 16. Other Information

**DISCLAIMER OF LIABILITY:** The information in this SDS was obtained from sources we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared as is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.



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NFPA Health Hazards 2  
Flammability 1  
Instability 0  
Physical and Chemical Properties –

HMIS Health Hazards 1  
Flammability 1  
Physical Hazards 0  
Personal Protection X

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End of document



# Zenivex® E4

## RTU

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 adult mosquito control applications, or by persons under their direct supervision.

- **FOR THE CONTROL OF ADULT MOSQUITOES, NON-BITING MIDGES, AND BLACK FLIES**
- **FOR USE AS A SPACE SPRAY BY AIR AND GROUND APPLICATION TO CONTROL ADULT MOSQUITOES**
- **APPROVED FOR USE OVER AGRICULTURAL CROPS (INCLUDING THOSE INTENDED FOR HUMAN CONSUMPTION), PASTURE AND RANGELAND**
- **READY TO USE WITHOUT DILUTION**
- **CONTROLS ADULT MOSQUITOES THAT MAY CARRY WEST NILE VIRUS, EASTERN EQUINE ENCEPHALITIS, ST. LOUIS ENCEPHALITIS**
- **CONTROLS NON-BITING MIDGES, NUISANCE AND BITING FLIES**
- **QUICK, PERMANENT KNOCKDOWN OF ADULT MOSQUITOES**

## SPECIMEN LABEL

### ACTIVE INGREDIENT:

Etofenprox (CAS #80844-07-1). . . . . 4%

OTHER INGREDIENTS\*: . . . . . 96%

Total: . . . . . 100%

\*Contains petroleum distillates

Contains 0.30 lbs etofenprox per gallon

EPA Reg. No. 2724-807

EPA Est. No. 2724-TX-1

### KEEP OUT OF REACH OF CHILDREN CAUTION

See additional Precautionary Statements,

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Applicators and other handlers must wear long-sleeved shirt, long pants, socks and shoes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and launder before reuse. Repeated exposure to etofenprox can cause skin irritation.

### FIRST AID

**If swallowed** • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.

**If in eyes** • 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 eyes. • Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

**NOTE TO PHYSICIAN:** May pose an aspiration pneumonia hazard. Contains petroleum distillate.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition into bodies of water may be hazardous to fish and other aquatic organisms. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are

present, and weather conditions will facilitate movement of applied material away from water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Time applications to provide the maximum possible interval between treatment and the next period of bee activity. Do not apply to blooming crops or weeds when bees are visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease-causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

### PHYSICAL/CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. **READ AND FOLLOW ALL LABEL DIRECTIONS.** Before making the first application of the season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

### GENERAL

**ZENIVEX® E4 RTU** is an effective insecticide used at low volumes to control adult mosquitoes, non-biting midges, biting and non-biting flies. Use **Zenivex® E4 RTU** undiluted as UltraLow Volume (ULV) for the control of pest species in or near residential, industrial, commercial, urban, recreational areas, woodlands, golf courses, and other areas where these pests are a problem. **Zenivex® E4 RTU** may be applied over agricultural areas prior to or following harvest for the control of adult mosquitoes within or adjacent to these areas. Apply **Zenivex® E4 RTU** aerially (both fixed and rotary aircraft) for low volume applications or through mist-blowers, backpack, and handheld sprayers for ground applications. **Zenivex® E4 RTU** will control mosquitoes and flies and can be used as part of a total integrated pest management program for controlling disease vectors. Apply **Zenivex® E4 RTU** at rates from 0.00175 to 0.0070 pounds of etofenprox per acre by ground ULV. Use this product undiluted only; do not mix with water. Apply when wind is  $\geq 1$  mph. Do not apply when wind speeds exceed 10 mph. A temperature inversion is preferable to keep the fog close to the ground and applications should be made when labeled insects are most active. Do not spray more than 0.18 lbs etofenprox per acre per site per year. Do not make more than 25 applications per site per year. More frequent

treatments may be made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease-causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

### GROUND APPLICATION

Use a vehicle-mounted cold aerosol ULV sprayer to apply the product. Direct the spray equipment nozzle to provide even distribution of the product. For best results, apply perpendicular to the wind direction using a swath width of 300 ft. Spray equipment must be adjusted so that the volume median diameter (VMD) is between 10-30 microns ( $10\mu \leq D_{v0.5} \leq 30\mu$ ) and that 90% of the spray is contained in droplets smaller than 50 microns ( $D_{v0.9} < 50\mu$ ). Directions from the equipment manufacturer or vendor, pesticide registrant, or test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

The appropriate application rate can be achieved by using the following table. Refer to the following chart for examples.

Application rate pound A.I. per acre	Flow rates		Vehicle Speed
	Undiluted		
	Oz/Acre	Oz/Minute	
0.00175	0.75	2.25	5
		4.50	10
		7.00	15
0.00350	1.5	4.50	5
		9.00	10
		13.50	15
0.00700	3.0	9.00	5
		18.00	10

Use the higher label rates when spraying areas where dense vegetation is present. Conduct applications when temperatures are between 50-95° F.

### Backpack Sprayer ULV Application

Apply **Zenivex® E4 RTU** undiluted through non-thermal ULV backpack sprayer capable of applying the product in the 10 to 30 micron range. Apply product to the area as evenly as possible. Apply at the rate of 0.00175 to 0.0070 pounds etofenprox per acre.

### Urban ULV Mosquito Control Applications

For control of resting or flying adult mosquitoes, biting flies and non-biting midges in areas such as utility tunnels, sewers, storm drains and catch basins, pipe chases, underground basements, underground passages, parking decks, crawl spaces or uninhabited

buildings, apply **Zenivex® E4 RTU** using mechanical foggers, hand-held or truck-mounted ULV equipment, thermal foggers or other spray equipment suitable for this application. Apply **Zenivex® E4 RTU** at rates up to but not exceeding 0.0070 pounds of etofenprox per acre.

#### **Thermal Fogging Application**

Apply using a truck, dolly mounted, handheld, or other thermal fogging equipment. Following the equipment manufacturer's instructions, apply this product at a rate of 0.00175 to 0.0070 pounds of etofenprox per acre. Direct fog to areas where mosquitoes and other pests are located. The volume median diameter (VMD) of droplets produced by thermal foggers is less than 60 microns ( $D_{v0.5} < 60\mu$ ) and 90% of the spray is contained in droplets smaller than 100 microns ( $D_{v0.9} < 100\mu$ ).

#### **AERIAL APPLICATION**

Apply **Zenivex® E4 RTU** aerially, undiluted, by fixed wing or rotary aircraft. Apply at the rate of 0.00175 to 0.0070 pounds of etofenprox per acre. Apply using ULV equipped and capable aircraft. Spray equipment must be adjusted so that the volume median diameter (VMD) produced is less than 60 microns ( $D_{v0.5} < 60\mu$ ) and that 90% of the spray is contained in droplets smaller than 100 microns ( $D_{v0.9} < 100\mu$ ). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant, or test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated. Do not apply **Zenivex® E4 RTU** at altitudes below 100 feet. Apply at altitudes from 100-300 feet. Apply when wind speed on the ground is  $\geq 1$  mph. Apply when labeled insects are most active. For best results, use Global Positioning System (GPS) equipped aircraft.

**IN FLORIDA:** Aerial applications of this product require trained personnel to perform industry accepted assays to monitor resistance formation in targeted mosquitoes.

#### **APPLICATIONS OVER CROPS OR TO AREAS FAVORING DRIFT OVER CROPS**

**Zenivex® E4 RTU** may be applied over crops (including row, tree, fruit, citrus, pasture and other areas where agricultural enterprises take place) or to areas, where drift over cropland could occur. **Zenivex® E4 RTU** can be applied to these areas by either ground or aerial application. Use label rates and follow directions for use as directed in this label. Applications over crops or where drift may occur over crops are limited to 4 applications per month to the same site but no more than two applications within a seven day interval. Do not apply more than 0.028 pounds of active

ingredient per month to the same site within a month. Do not spray more than 0.18 lbs etofenprox per acre per site per year. Do not make more than 25 applications per site per year.

#### **PESTICIDE STORAGE AND DISPOSAL**

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

**STORAGE AND SPILL PROCEDURES:** Store upright at room temperature. Avoid exposure to extreme temperatures. In case of spill or leakage, soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

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

**CONTAINER DISPOSAL: Refillable 30 Gallon Drums, 120 Gallon Mini-Tote and 275 Gallon Tote:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. If not refilled, offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration. To clean the container before final disposal, triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container  $\frac{1}{4}$  full with mineral oil or other suitable oil diluents. 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. **Non-refillable 2.5 gallon containers: Non-refillable container.** Triple rinse (or equivalent), promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain container for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full of with mineral oil or other suitable oil diluents and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank. Drain container for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Once triple rinsed, recycle if available, or puncture and dispose of in a sanitary landfill, or by incineration.

To the extent consistent with applicable law, seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

In case of an emergency or for product use information, call **1-800-248-7763**.

**[www.zenivex.com](http://www.zenivex.com)**

**Wellmark International**  
1501 East Woodfield Road 200W  
Schaumburg, Illinois 60173





# Zenivex E4 RTU

## Safety Data Sheet

Issue date: 06/17/2015

Revision date: 11/18/2021

Supersedes: 06/15/2017

Version: 1.0

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Trade name : Zenivex E4 RTU  
Synonyms : 100503070, 100503072, 100503073, 100511618, EPA Reg. No.: 2724-807, RF2146 RTU

#### 1.2. Recommended use and restrictions on use

Recommended use : Insecticide.  
Restrictions on use : Avoid contact with skin and eyes. Keep out of reach of children. Avoid inhalation of vapors or fumes. Do NOT take internally. Do not use or store near heat or open flame.

#### 1.3. Supplier

Wellmark International  
1501 E. Woodfield Road, Suite 200W  
Schaumburg, IL 60173 - United States  
www.zenivex.com

#### 1.4. Emergency telephone number

Emergency number : 1-800-248-7763  
1-800-424-9300 - CHEMTREC  
1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Aspiration hazard Category 1

May be fatal if swallowed and enters airways

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US)



GHS08

Signal word (GHS US) : Danger  
Hazard statements (GHS US) : May be fatal if swallowed and enters airways  
Precautionary statements (GHS US) : If swallowed: Immediately call a poison center or doctor.  
Do NOT induce vomiting.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

#### 2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : This pesticide is toxic to aquatic organisms, including fish and invertebrates. This product is toxic to bees exposed to direct treatment on blooming crops or weeds. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

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Name	Product Identifier	%
Etofenprox	(CAS-No.) 80844-07-1	4
Mineral oil, petroleum distillates, hydrotreated light, heavy paraffinic	(CAS-No.) 64742-54-7, 64742-55-8, 8042-47-5	≥ 64.1
Non-hazardous and/or does not meet criteria for classification	(CAS-No.) N/A	Balance

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

- First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : 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 and attention.
- First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel.

#### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after ingestion : Aspiration Hazard - may be fatal if swallowed and enters airways.

#### 4.3. Immediate medical attention and special treatment, if necessary

Contains petroleum distillate vomiting may cause aspiration pneumonia. Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
- Unsuitable extinguishing media : Avoid heavy hose streams.

#### 5.2. Specific hazards arising from the chemical

- Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

#### 5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Do not allow fire fighting water to escape into waterways or sewers. Evacuate area. Stay upwind. Ventilate closed spaces before entering. Do not breathe gas/fumes/vapor/spray.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes.

##### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure controls/personal protection.
- Emergency procedures : Do NOT wash away into sewer. Avoid release to the environment. Do not scatter spilled material with high pressure water streams. Evacuate unnecessary personnel. Stay upwind. Stop leak if safe to do so. Ventilate area. Wear appropriate personal protective equipment, avoid direct contact. Static accumulator. This material can accumulate static charge and can be ignited by static discharge. Take precautionary measures against static discharges.

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Absorb spills with an inert material, clay granules or other inert absorbent material and put in container for disposal.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

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Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in original container. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid extreme temperatures. Keep container tightly closed. Store locked up. Avoid direct sunlight. Store at room temperature. Store in a well-ventilated place.

Incompatible materials : Strong acids. Strong bases. Strong oxidizers.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Mineral oil, petroleum distillates, hydrotreated light, heavy paraffinic (64742-54-7, 64742-55-8, 8042-47-5)		
ACGIH	ACGIH OEL TWA	5 mg/m <sup>3</sup> Form: mist/aerosols
ACGIH	ACGIH OEL STEL	10 mg/m <sup>3</sup> Form: mist/aerosols

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Wear protective gloves

#### Eye protection:

Safety glasses. Chemical goggles or safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, use NIOSH approved respiratory protection.



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
Appearance : Clear to pale yellow liquid  
Color : Clear to pale yellow  
Odor : Mild  
Odor threshold : No data available  
pH : No data available  
Melting point : Not applicable  
Freezing point : No data available  
Boiling point : No data available  
Flash point : 103 °C (217 °F)  
Relative evaporation rate (butyl acetate=1) : No data available  
Flammability (solid, gas) : Not applicable  
Vapor pressure : No data available

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Relative vapor density at 20 °C	: No data available
Relative density	: 0.89 @ 20°C / 7.4 lb./gal
Solubility	: Insoluble
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: < 100 cP @ 20°C (68 °F)
Explosion limits	: No data available
Explosive properties	: Not explosive
Oxidizing properties	: Not applicable

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Avoid temperatures below 75 °F. Heat, sparks, open flame and ignition sources. Avoid extreme heat.

### 10.5. Incompatible materials

Strong oxidizing agents.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Etofenprox (80844-07-1)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	> 5.88 mg/l/4h

GHS-US Properties	Classification
Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	May be fatal if swallowed and enters airways.

### Potential health effects



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### Inhalation

Acute : Under normal conditions of use, no health effects are expected.

### Skin

Acute : Under normal conditions of use, no health effects are expected.

Chronic : Repeated exposure to etofenprox can cause skin irritation.

### Eye

Acute : May cause mild eye irritation.

### Ingestion

Acute : Aspiration Hazard - may be fatal if swallowed and enters airways.

### Mutagenicity

: Etofenprox has been found negative for mutagenicity potential using the Ames test, chromosomal aberration and micronucleus test methods.

### Carcinogenicity

: Etofenprox is not classified as carcinogen by NTP, IARC and OSHA.

### Reproductive Effects

: Etofenprox did not produce teratogenic or reproductive effects in laboratory experiments.

## SECTION 12: Ecological information

### 12.1. Toxicity

Etofenprox (80844-07-1)	
LC50 Acute fish 1	0.0027 mg/l (Exposure time: 96hr Oncorhynchus mykiss)
LC50 Acute fish 2	> 0.0165 (Exposure time: 96h - Sheepshead minnow)
LC50 Acute crustacea 1	0.0000188 mg/l (Exposure time: 96h - Mysid shrimp)
LC50 Acute crustacea 2	0.0008 mg/l (Exposure time: 48h Daphnia)
NOEC Chronic crustacea 1	0.00017 mg/l (Daphnia magna)

### 12.2. Persistence and degradability

Etofenprox (80844-07-1)	
Persistence and degradability	Etofenprox is not readily biodegradable.

### 12.3. Bioaccumulative potential

No data available

### 12.4. Mobility in soil

No data available

### 12.5. Other adverse effects

Zenivex E4 RTU	
Ecological Fate	This product is toxic to aquatic organisms, including fish and invertebrates. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	Not regulated	Not regulated	Not regulated	Not regulated	Not applicable
IMDG	UN3082	Packaging greater than 5 L: Environmentally Hazardous substance, Liquid, n.o.s. (Etofenprox)	9	III	Marine pollutant
IATA	UN3082	Packaging greater than 5 L: Environmentally Hazardous substance, Liquid, n.o.s. (Etofenprox)	9	III	Acute aquatic toxicity

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

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<b>Mineral oil, petroleum distillates, hydrotreated light, heavy paraffinic (64742-54-7, 64742-55-8, 8042-47-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>EPA Labelling</b>	
EPA Registration Number	2724-807
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 for use.	
FIFRA Hazard statements	Caution
FIFRA Precautionary statements	KEEP OUT OF REACH OF CHILDREN.
FIFRA Hazards to Humans and Domestic Animals	Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Applicators and other handlers must wear long-sleeved shirt, long pants, socks and shoes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and launder before reuse. Repeated exposure to etofenprox can cause skin irritation.
FIFRA First aid	If swallowed: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person. If in eyes: 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 eyes. Call a poison control center or doctor for treatment advice. Note to Physician: May pose an aspiration pneumonia hazard. Contains petroleum distillate.
FIFRA Environmental hazards	This pesticide is toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition into bodies of water may be hazardous to fish and other aquatic organisms. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Time applications to provide the maximum possible interval between treatment and the next period of bee activity. Do not apply to blooming crops or weeds when bees are foraging the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease-causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.
FIFRA Physical hazards	Combustible. Do not use or store near heat or open flame.

### 15.2. US State regulations

No additional information available

## SECTION 16: Other information

Issue date	: 17 June 2015
Revision date	: 18 November 2021
Supersedes	: 15 June 2017

SDS US (GHS HazCom 2012) - CGP

*The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.*