

**VectoBac 600L Biological Larvicide Aqueous Suspension**

SDS# VBC-0082 Revision 0

ISSUED 06/10/15

[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 600L Biological Larvicide Aqueous Suspension**Synonyms:** None**PCP Reg No.:** 19455**Code Number:** 15574**List Number:** 60202**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 pesticide labeling.**1.3 Details of the supplier of the Safety Data Sheet****Supplied By:** Valent BioSciences Corporation  
870 Technology Way  
Libertyville, Illinois 60048**1.4 EMERGENCY TELEPHONE NUMBERS****Emergency Health or Spill:**

Outside the United States: 651-632-6184

Within the United States: 877-315-9819

**2. HAZARDS IDENTIFICATION****2.1 Classification of the Substance or Mixture**

Category 1B: Sensitization -Skin

**2.2 Labeling Elements****Symbol(s)****Signal Word**

WARNING

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**Hazard Statement(s)**

May cause an allergic skin reaction

**Precautionary Statement:**

**Prevention**

- Avoid breathing mist or spray
- Wash thoroughly after handling
- Contaminated work clothing must not be allowed out of the workplace
- Wear protective impervious gloves

**Response**

- If on skin: Wash with plenty of water.
- If skin irritation or rash occurs: Get medical advice/ attention.
- Take off contaminated clothing and wash it before reuse.

**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	Classification	Percent
None	<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> Strain AM 65-52	Not classified	6.38 %
2634-33-5	Proxel GXL	Skin Sensitizer	0.10 %
Trade Secret	Other Ingredients – withheld as Trade Secret	Not classified	93.52 %

**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.

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**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.

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

Mild skin sensitization potential

**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 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**

Wear a dust/mist filtering respirator, eye protection and impervious 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**

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.

**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

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**Predicted No Effect Concentrations (PNECs)**

No PNECs available

**8.2 Exposure Controls**

**Appropriate Engineering Controls**

Provide general ventilation.

**SKIN PROTECTION:**

Wear impervious protective clothing, including boots and gloves. Wear gloves made of impervious materials. 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**

**9.1 Information on Basic Physical and Chemical Properties**

Appearance/Color:	Light Brown Liquid	Odor:	Malt-like
Odor Threshold:	Not determined	pH:	4.5 – 5.4
Melting point/ Freezing point:	Not determined	Boiling Point:	Not determined
Flashpoint:	Not determined	Evaporation Rate:	Not determined
Flammability:	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.	Upper/Lower flammability or explosive limits	Not determined
Vapor Pressure:	Not determined	Vapor Density:	Not determined
Relative/Bulk Density:	1.06 – 1.15 g/cm <sup>3</sup> @ 20 °C	Solubility:	Not determined
Octanol/H <sub>2</sub> O Partition Coefficient:	Not determined	Auto-ignition temp:	None below 400 °C
Decomposition Temp:	Not determined	Viscosity:	Not applicable

**10. CHEMICAL STABILITY AND REACTIVITY**

**10.1 Reactivity**

Material does not pose a significant reactivity hazard.

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**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.

**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**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> > 5,000 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:	Mild 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 a teratogenic compound.

Special Target Organ: Slight eye and skin Irritation.

Aspiration Hazard: Not Applicable

Repeat Dose Studies: Not Applicable, Pathogenicity Toxicity testing was all negative

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**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 &amp; 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

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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: Not Listed

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.

**15.2 PMRA Pesticide Regulations**

PCP Number: 19455

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

This chemical is a pesticide product registered by the PMRA 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.

READ THE LABEL AND BROCHURE BEFORE USING  
KEEP OUT OF REACH OF UNAUTHORIZED PERSONNEL  
POTENTIAL SENSITIZER  
CAUTION EYE IRRITANT

DO NOT apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption. Avoid contact with skin, eyes, and clothing. Avoid breathing dust/spray mist. Wear a long sleeved shirt, long pants, waterproof gloves, shoes and socks, eye goggles and NIOSH-approved respirator with any N-95, R-95, or P-95 filter for biological products when handling, mixing/loading or applying the product and during all clean-up/repair activities. Applicators may remove gloves, eye goggles and respirators if the design and delivery of the application apparatus reduces



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exposure to a negligible level (e.g. backpack sprayer with application wands that apply product directly over water surface). Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

TOXICOLOGICAL INFORMATION: Treat symptomatically.

**STORAGE**

In order to ensure microbial purity and potency, VectoBac 600L Biological Insecticide should be stored in the original container between 0°C and 15°C and used within 6 months of the date of manufacture.

**DISPOSAL:**

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site: Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank. Make the empty, rinsed container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

**16. OTHER INFORMATION**

**NFPA Hazard Ratings**

**HMIS Hazard Ratings**

Health: N/D  
 Flammability: N/D  
 Instability: N/D

Health: N/D  
 Flammability: N/D  
 Instability: N/D

0 = minimal  
 1 = slight  
 2 = moderate  
 3 = serious  
 4 = Extreme

REASON FOR ISSUE: New GHS format  
 APPROVAL DATE: 6/10/15  
 SUPERSEDES DATE: --/--/--

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

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