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VectoBac 1200L Biological Larvicide Aqueous Suspension

SDS# VBC-0081 Revision 3

ISSUED 03/31/2020

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

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1 Product Identifier

MATERIAL NAME: VectoBac 1200L Biological Larvicide Aqueous Suspension

Synonyms: None PCP No.: 21062 Code Number: 15578 List Number: 05605

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 pesticide labeling.

1.3 Details of the supplier of the Safety Data Sheet

Supplied By: Valent BioSciences LLC 870 Technology Way

Libertyville, Illinois 60048

Canadian Agent: Valent Canada, Inc.

201-230 Hanlon Creek Blvd. Guelph, Ontario N1C 0A1

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



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2.2 Labeling Elements Symbol(s)



Signal Word

WARNING

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	Percent
None	Bacillus thuringiensis subsp. israelensis	11.61
2634-33-5	Proxel GXL	0.10
Trade Secret	Other Ingredients – withheld as Trade Secret	88.29



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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.

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

Mild eye and skin irritation, mild 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



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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.

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.



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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

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

Appearance/Color:	Light Brown Liquid	Odor:	Malt-like
Odor Threshold:	Not determined	pH:	5.0 (1% sol'n)
Melting point/	Not determined	Boiling Point:	Not determined
Freezing point:			
Flashpoint:	Not determined	Evaporation Rate:	Not determined
Flammability:	None of the components are	Upper/Lower	Not determined
	classified as flammable or highly	flammability or	
	flammable, it can be concluded	explosive limits	



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	that the preparation itself will not be classified as highly flammable.		
Vapor Pressure:	Not determined	Vapor Density:	Not determined
Relative/Bulk Density:	1.06 g/ml	Solubility:	Not determined
Octanol/H ₂ O Partition	Not determined	Auto-ignition temp:	None below 400 °C
Coefficient:			
Decomposition	Not determined	Viscosity:	Not applicable
Temp:			

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 (<u>Data for Technical</u>)

ORAL TOXICITY: $LD_{50} > 5,000$ mg/kg (rat) DERMAL TOXICITY: $LD_{50} > 5,000$ mg/kg (rabbit)

INHALATION TOXICITY: LC₅₀ > 2.84 mg/L air (maximum feasible concentration)



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CORROSIVENESS: Not corrosive.

DERMAL IRRITATION: Mildly or slightly irritating

OCULAR IRRITATION: Slightly irritating

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

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: $LC_{50} > 370 \text{ mg/L}$ (96-H, Rainbow Trout)

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

 $LC_{50} > 3077$ mg/kg (6.2 x 10^{11} cfu/kg) each day for 5 days (Sub-Acute Oral

(dietary) - Bobwhite Quail)

Invertebrates: LC₅₀ >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



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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.

14. TRANSPORTATION INFORMATION

<u>DOT</u> 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

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: 21062

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.



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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 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 1200L Biological Larvicide Biological Larvicide 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.



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16. OTHER INFORMATION

NFPA Hazard Ratings HMIS Hazard Ratings

Health: 1 Health: 1 0 = Minimal Flammability: 0 Flammability: 0 1 = Slight Instability: 0 2 = Moderate 3 = Serious

4 = Extreme

REASON FOR ISSUE: Periodic Review APPROVAL DATE: 03/31/2020 SUPERSEDES DATE: 08/06/2018

LEGEND: N/A = Not Applicable N/D = Not Determined

N/L = Not Listed L = Listed
C = Ceiling S = Short-term
(R) = Registered Trademark of Valent BioSciences 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, 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, 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. 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) 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.

