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SAFETY DATA SHEET: VectoBac® WG

1. IDENTIFICATION

Product Name: VectoBac® WG

Other names: VectoBac® WG Biological Larvicide

Use: A biological insecticide containing Bacillus thuringiensis subspecies israelensis for the control

of mosquito larvae.

Supplier: Key Industries Ltd

Address: P.O. Box 65070, Mairangi Bay, Auckland 0754

Telephone: 09 917 1791 **Emergency Phone:** 027 494 1659

National Poisons Centre: 0800 POISON (0800 764 766)

2. HAZARD IDENTIFICATION

Product is classified as hazardous according to Hazardous Substances (Hazard Classification) Notice 2020 of the HSNO Act, 1996.

HSNO Approval: HSR000702

Hazard Classifications: Designed for biocidal action.

Pictograms: Not applicable Signal word: Not applicable

Hazard Statements:

Not required

Prevention Statements:

Not required

Response Statements:

Not required

Storage Statements:

Not required.

Disposal Statements:

Not required.

3. COMPOSITION: INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Concentration (%w/w)
Bacillus thuringiensis subspecies israelensis, strain AM65-32	-	30 - 60
Other ingredients (non hazardous)	Trade secret	Balance

4. FIRST AID MEASURES

Consult the National Poisons Information Centre 0800 POISON (0800 764 766) or a doctor if person feels unwell after handling. Have product label or Safety Data Sheet at hand.

INGESTION: Do not induce vomiting. Rinse mouth. Give some water to sip. Stop if person feels sick as vomiting may be dangerous. If vomiting occurs spontaneously, ensure head is below hips to ensure no aspiration into lungs. Call POISON CENTRE or doctor for advice.

SKIN CONTACT: Wash with soap and water. If irritation persists, obtain medical advice.

EYE CONTACT: Flush with running water for at least 15 minutes. Remove contact lenses if present, and easy to do after 5 minutes before continuing rinsing. If irritation persists, obtain medical assistance.

INHALATION: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If person is experiencing respiratory problems, get medical advice. In event of any sensitisation symptoms developing, ensure further exposure is avoided.

First Aid facilities: Provide eye wash and hand washing facilities.

Advice to Doctor: Treat symptomatically.

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5. FIRE-FIGHTING MEASURES

Flashpoint: Non-flammable product.

Suitable extinguishing media: Alcohol resistant foam, carbon dioxide, dry powder or water fog. Use extinguishing media appropriate to surrounding materials. Do not use water as jet and this will spread fire.

Hazards from combustion products: Thermal decomposition may produce unspecified harmful compounds.

Precautions for fire fighters and special protective equipment: Self-contained breathing apparatus (SCBA) with full face-piece and protective clothing conforming to Australia/New Zealand Standards (AS/NZS 4967, AS/NZS 1801, AS/NZS 4821).

Hazchem Code: Not applicable.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures:

Avoid inhalation of dust/vapours/mist and contact with skin and eyes. Wear respiratory protection if inadequate ventilation. Wear gloves, safety glass or goggles, and protective clothing/boots.

Methods and materials for containment

In the event of a spill, isolate area and take all practicable steps to prevent product from entering streams and waterways. Recover product into labelled container for recovery or disposal. Wash contaminated area with water. In event of spillage contaminating a watercourse, notify the Police, local Health Protection Officer and Council.

7. HANDLING AND STORAGE

Precautions for safe handling: Keep out of reach of children. Avoid breathing dust/vapours/mist and contact with skin or eyes. Observe good personal hygiene practices and recommended procedures including wearing of personal protective equipment. Wash hands thoroughly with soap and water after handling. If clothing contaminated, wash before reuse.

Conditions for safe storage: Keep out of reach of children. Store in tightly closed container in a cool (below 25°C) dry place away from foodstuffs. Avoid contamination of and with other products. Store in accordance with current version of NZS 8409 Management of Agrichemicals.

Incompatible materials: Not specified.

Other: No specific advice.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Health Exposure Standards: Workplace Exposure Standard (WES), has been set by Worksafe NZ ed. 12, November 2020. Inhalable dust (not otherwise specified), 10 mg/m³.

Biological limit values: None established.

Engineering Controls:

Ventilation: Not required when used outdoors in well-ventilated area.

Personal Protective Equipment:

Respiratory Protection: Wear protection (particulate mask) when mixing granules.

Eye Protection: Wear safety glasses with side shields or goggles when mixing granules or dealing with spillages.

Skin/ Body Protection: Wearing of .chemical resistant, impervious gloves is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Brown granules
Odour Musty (mouldy)
Odour threshold Not determined

pH 5.8 (10% aqueous suspension)

Melting/Freezing point ⁰C Not determined Boiling Point/Range ⁰C Not applicable Flash Point ⁰C Not flammable. Flammability (solid, gas) Not applicable Upper/lower flammability limits Not determined Vapour Pressure mm Hg @ 20°C Not determined Vapour Density kPa @ 20°C Not determined Bulk density 0.36 g/cm³

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Solubilities Limited solubility in water

Partition coefficient: n-octanol/water

Autoignition Temperature °C

Decomposition Temperature °C

Kinematic viscosity

Not determined

Not determined

Not determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions of use and storage.

Conditions to avoid: Exposure to sources of heat, sunlight.

Incompatible materials: None identified.

Hazardous decomposition products: Thermal decomposition may produce unspecified harmful compounds.

Hazardous reactions: None specified.

11. TOXICOLOGICAL INFORMATION

Toxicity classifications determined by assessment of the components in the formulated mixture.

Acute toxicity: Not classified as being acutely toxic. May cause discomfort if swallowed.

Aspiration hazard: Not classified as an aspiration hazard.

Respiratory irritation: Not classified.

Skin corrosion/irritation: Not classified as skin irritant. Slightly irritating.

Serious eye damage/irritation: Not classified as an eye irritant. Slightly irritating.

Respiratory or skin sensitization: Not classified as either a respiratory or contact sensitizer.

Germ cell mutagenicity: Not classified.

Carcinogenicity: Not classified.
Reproductive toxicity: Not classified.
Specific organ toxicity: Not classified.
Narcotic effects: Not classified.

Toxicological Information: Rat, oral LD₅₀ >5000 mg/kg b.w.

Rat, dermal LD₅₀ >5000 mg/kg b.w.

Rat, inhalation LC₅₀(4 h) >0.014 mg/L (maximum attainable)

12. ECOLOGICAL INFORMATION

Ecotoxicity: This mixture is not classified as being ecotoxic but is designed for biocidal action to control mosquito larvae.

Persistence and degradability: No specific information available. Potential to be bioaccumulative: No specific information available.

Mobility in soil: Limited solubility.

Other adverse effects: No information available

Ecotoxicological Information:

Active ingredient Rainbow trout (Onchorhynchus mykiss) LC50 (96 h) >370 mg/L

Daphnia magna LC₅₀ (48 h) >50 mg/L

Bobwhite quail (Colinus virginianus) LC₅₀ >3077 mg/kg

Environmental Exposure Limits (EEL's): Not set.

13. DISPOSAL CONSIDERATIONS

Disposal Methods: Triple rinse containers using wash water to make up spray solution. Crush and dispose of empty containers to approved landfill if unable to be disposed to a recycler or designated collection facility.

Do not burn product or empty containers.

Dispose in accordance with all local and national regulations.

14. TRANSPORT INFORMATION

Road and R	ail Transport	Marine Transport		Air Transport	
UN No.	Not applicable	UN No.	Not applicable	UN No.	Not applicable

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Proper Shipping Name	Proper Shipping Name	Proper Shipping Name	
DG Class	DG Class	DG Class	
Sub. Risk	Sub. Risk	Sub. Risk	
Pack Group	Pack Group	Pack Group	
Hazchem	Hazchem		

Dangerous Goods Segregation

This product is classified as a non- Dangerous Good Class for Transport.

Please consult the Land Transport Rule: Dangerous Goods 2005, and NZS 5433:2020 Transport of Dangerous Goods on Land for information.

15. REGULATORY INFORMATION

HSNO Act 1996

Approval Code: HSR000702

Substance name: Water dispersible granule containing 3000 ITU/mg Bacillus thuringiensis subspecies israelensis

Classifications: Designed for biocidal action (9.1D)

HSNO Controls: Refer www.epa.govt.nz

77A

Description: A use restriction is applied to this substance.

Variation:

- (1) Where the substance is applied onto or into water and the water has the potential to leave the place containing the application area, any application of the substance must be under the personal control of an approved handler.
- (2) For the purpose of Clause (1), water means water in all its physical forms, whether flowing or not, and whether over or under ground, but does not include water in any form while in a pipe, tank or cistern.

ACVM Act 1997

Registration Number: Not applicable (exempt).

Refer to www.foodsafety.govt.nz

16. OTHER INFORMATION

Date of Issue: 20th April 2021 Reasons for Issue: New SDS. Replaces: Not applicable

Abbreviations:

EPA New Zealand Environmental Protection Authority

GHS Global Harmonised System

HSIS Hazardous Substance Information System
HSNO Hazardous Substances and New Organisms
NZIoC New Zealand Inventory of Chemicals

STEL Short Term Exposure Limit (15 minute exposure period)
TWA Time-Weighted Average (8 hours exposure period)

WES Workplace Exposure Standard

References:

EPA www.epa.govt.nz

New Zealand Food Safety Authority www.foodsafety.govt.nz

Supplier Safety Data Sheet

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Other:

The information contained herein is given in good faith but no warranty, expressed or implied is made.

End of safety data sheet

The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the supplier's knowledge. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses, but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product. For further information, please contact Key Industries Limited.

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