

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

# VectoBac® WG

BIOLOGICAL LARVICIDE WATER DISPERSIBLE GRANULE

**ACTIVE CONSTITUENT:** *Bacillus thuringiensis* subsp. *israelensis* strain AM65-52  
Minimum Potency 3000 ITU/mg

**GROUP 11 INSECTICIDE**

**For specific control of first to early fourth instar mosquito (Family Culicidae) larvae as per Directions for Use table.**

## GENERAL INSTRUCTIONS

Larvicidal activity, due to destruction of the midgut epithelium, occurs within 12 hours of ingestion. Because late 4th instar larvae do not feed prior to pupation, application has to be made to 1st through early 4th instar larvae. When more than 50% of the larval population is in the late 4th instar stage, the use of this product is not recommended.

## INSECTICIDE RESISTANCE WARNING

**GROUP 11 INSECTICIDE**

For insecticide resistance management, VectoBac WG is a Group 11 insecticide.

Some naturally occurring insect biotypes resistant to VectoBac WG and other Group 11 insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if VectoBac WG or other Group 11 insecticides are used repeatedly. The effectiveness of VectoBac WG on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, Valent BioSciences accepts no liability for any losses that may result from the failure of VectoBac WG to control resistant insects.

VectoBac WG may be subject to specific resistant management strategies. For further information contact your local supplier, Sumitomo Chemical Australia representative or local agricultural department agronomist.

## Mixing

VectoBac WG 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 WG than can be used in a 72 hour period.

Fill the spray vat, mix tank etc with the desired quantity of water. Start agitation to provide moderate circulation before adding the required quantity of VectoBac WG into the vat. For extended operations check and clean the filters of mix tank regularly.

VectoBac WG suspends readily with water and will stay suspended over normal application periods. Recirculation may be necessary if the spray mixture has sat for several hours or longer.

**AVOID CONTINUOUS AGITATION OF THE SPRAY MIXTURE DURING SPRAYING.**

**DO NOT** mix with alkaline or dirty water.

## For Ground Application

For most ground spraying apply in 2 to 150 L water per hectare using hand pump, air blast, mist blower etc spray equipment.

## For Aerial Application

VectoBac WG can be applied through fixed wing or helicopter aircraft equipped with either conventional boom or nozzle systems or rotary atomisers at a convenient dilution.

Rinse and flush spray equipment thoroughly following each use.

## **PROTECTION OF LIVESTOCK, WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT:**

Apart from labelled use according to the Directions for Use table. **DO NOT** contaminate streams, rivers or waterways with the chemical or used containers.

## **STORAGE AND DISPOSAL**

Keep out of reach of children.

Store in the closed, original container in a cool (below 20°C – air conditioning) well-ventilated area. **DO NOT** store for prolonged periods in direct sunlight. The product is stable for 2 years if stored as indicated above. Triple rinse containers before disposal. Add rinsings to spray tank. **DO NOT** dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point.

If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways,

desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. **DO NOT** burn empty containers or product.

## SAFETY DIRECTIONS

Will irritate the eyes and skin. Avoid contact with eyes and skin and open wounds. **DO NOT** inhale spray mist. When opening the container and preparing the spray wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length PVC gloves and face shield or goggles. When using the prepared spray wear cotton overalls buttoned to the neck and wrist or equivalent clothing.

If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and face shield or goggles and contaminated clothing.

## FIRST AID

If poisoning occurs contact a doctor or Poisons Information Centre (ph: 13 11 26).

## SAFETY DATA SHEET

Additional information is listed in the Safety Data Sheet (SDS).

## IMPORTANT NOTICE

These goods are to be used only for the purpose and as specified on the label, and are not suitable for any other purpose. To the fullest extent permitted by law, we do not accept or bear any liability on any basis for any loss, damage, cost or expense, arising in any way, directly or indirectly, in connection with the goods.

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**THIS PRODUCT IS NOT CONSIDERED TO BE A DANGEROUS GOOD UNDER THE AUSTRALIAN CODE FOR THE TRANSPORT OF DANGEROUS GOODS BY ROAD OR RAIL**

In a Transport Emergency  
**Dial 000**  
Police or Fire Brigade

**SPECIALIST ADVICE  
IN EMERGENCY ONLY  
ALL HOURS - AUSTRALIA WIDE  
1800 024 973**

## DIRECTIONS FOR USE

**DO NOT** apply to clean, finished drinking water.

**DO NOT** allow diluted spray to remain in the tank for more than 72 hours.

SITUATION	INSECT PEST	RATE OF TREATMENT	CRITICAL COMMENTS
Stagnant and standing ponds, flood and irrigation water, ditches	eg. <i>Aedes notoscriptus</i> , <i>Culex annulirostris</i> (common banded mosquito), <i>Culex australicus</i> , <i>Anopheles annulipes</i> (common Australian anopheline)	125 - 250 g/ha	<ol style="list-style-type: none"> <li>1. Apply in 2 to 150 L water per hectare in a maximum concentration of 62.5 g/L.</li> <li>2. Use for control of 1<sup>st</sup> to early 4<sup>th</sup> instar.</li> <li>3. Use lower rate when 1<sup>st</sup> to 3<sup>rd</sup> instar larvae predominate; higher rate when late 3<sup>rd</sup> to early 4<sup>th</sup> instar larvae predominate.</li> <li>4. Reapply as needed.</li> </ol>
Tidal water and salt marshes, storm water retention areas	eg. <i>Aedes vigilax</i> , (saltmarsh mosquito), <i>Culex sitiens</i> (saltwater culex)	250 - 500 g/ha	
Water with moderate to high organic content, sewage settling ponds, etc.	eg. <i>Culex quinquefasciatus</i> (brown house mosquito)	500 g/ha	
Natural Containers (in vegetation) less than 50L capacity and Artificial Containers less than 50L capacity	Dengue vectors including: <i>Aedes aegypti</i> and <i>Aedes albopictus</i>	400 - 800 g/ha	<ol style="list-style-type: none"> <li>1. Do not apply to clean, finished drinking water.</li> <li>2. Ground application spray equipment to be used for uniform dispersion</li> <li>3. Higher dose rate can provide longer residual efficacy.</li> <li>4. Reapply as needed</li> </ol>
Artificial containers		Direct Application: 200-400 mg/L*  * volume of container (note 1 level scoop equals 200 mg/L)	<ol style="list-style-type: none"> <li>1. Do not apply to clean, finished drinking water</li> <li>2. Use measuring scoop to broadcast as uniformly as possible in to the container.</li> <li>3. Higher dose rates can provide longer residual efficacy.</li> <li>4. Dry containers can be treated up to 2 months before the containers are flooded.</li> <li>5. Reapply as needed</li> </ol>

**NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION**