

**VECTOBAC<sup>®</sup> AS BIOLOGICAL INSECTICIDE****SECTION 1: CHEMICAL PRODUCT AND COMPANY INFORMATION**

**Product Name:** VectoBac AS Biological Insecticide  
**Product Use:** Biological Insecticide for control of mosquitoes  
**Company:** Sumitomo Chemical Australia Pty Ltd  
A.B.N. 21 081 096 255  
**Address:** 242 Beecroft Road, Epping NSW 2121  
**Telephone Number:** (02) 8752 9000 (Mon–Fri 8am–5pm EST)  
**Emergency Telephone Number:** 1800 024 973 (24 hours) (EMERGENCIES ONLY)

**SECTION 2: HAZARDS IDENTIFICATION**

**Approved Criteria Classification:** Hazardous according to the criteria of NOHSC.  
Risk phrases: R43 – May cause sensitisation by skin contact.  
**SUSDP Classification:** Not Scheduled  
**ADG Classification:** Not a Dangerous Good

**EMERGENCY OVERVIEW**

**Colour:** Light brown  
**Physical description:** Liquid  
**Odour:** Typical fermentation (malt) odour  
**Major health hazards:** Product is non-toxic by ingestion, skin contact or inhalation.

**POTENTIAL HEALTH EFFECTS**

**Acute Toxicity:** No adverse health effects are expected if this product is used in accordance with the label. Poisoning is unlikely to occur. Product is non-toxic by ingestion, skin contact or inhalation. May be irritating to skin and eyes and may be a skin sensitizer.

**Signs and Symptoms of Systemic Effects:** Direct contact with eyes may cause mild irritation.  
Inhalation of dust may result in respiratory tract irritation

**Eye:** Mild Irritant  
**Skin:** Mild Irritant and possible mild sensitizer  
**Ingestion:** Not a likely route of exposure  
**Inhalation:** Not a likely route of exposure

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Entity	CAS number	Proportion
<i>Bacillus thuringiensis</i> subsp <i>israelensis</i>	68038-71-1	<10%
Other ingredients determined not to be hazardous		to 100%

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## SECTION 4: FIRST AID MEASURES

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- Scheduled Poisons:** Poison Information Centres in each State capital city can provide additional assistance for scheduled poisons. Telephone: 131126 (Australia).
- Eye contact:** Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.
- Skin contact:** Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.
- Ingestion:** Remove from source of exposure. 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.
- Note to physician:** No known antidote, provide symptomatic/supportive care as necessary.

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## SECTION 5: FIRE FIGHTING MEASURES

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- Fire and Explosion Hazards:** Not flammable.
- Extinguishing Media:** Use appropriate medium for the underlying cause of the fire.
- Hazardous Decomposition Products:** None
- Hazardous reactions:** None. Hazardous polymerisation will not occur.
- Materials to avoid:** None
- Fire Fighting:** Wear protective clothing and self-contained breathing apparatus.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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**Emergency Telephone Number:** 1800 024 973 (24 hours) (EMERGENCIES ONLY)

### Observe precautions in Section 8: Personal Protection

Stop the source of the spill if it is safe to do so. Contain the spill to prevent further contamination of the soil, surface water, or ground water.

### FOR SPILLS ON LAND

- CONTAINMENT:** Avoid runoff into storm sewers or other bodies of water.
- CLEANUP:** Absorb with sand, earth or inert absorbent. Scoop or shovel and place in an appropriate container for disposal. Ventilate and wash the spill area. Pick up wash liquid with additional absorbent and place in a chemical waste container.

### FOR SPILLS IN WATER

- CONTAINMENT:** Avoid runoff into storm sewers or other bodies of water. Isolate contaminated water.
- CLEANUP:** Remove contaminated water for treatment or disposal.

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## SECTION 7: HANDLING AND STORAGE

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Keep out of reach of children. Keep pesticide in original container. Do not store near flame, sparks or hot surfaces. Do not store or transport near food or feed. Do not contaminate food or feed. Do not put into food or drink containers. Store in a cool, dry place, out of direct sunlight.

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## SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

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<b>EYE PROTECTION:</b>	Not usually required. Eye contact can be avoided by wearing protective eyewear.
<b>RESPIRATION/VENTILATION:</b>	Not usually required. If necessary use a respirator with a dust/mist filter. Use only in well ventilated areas.
<b>SKIN PROTECTION:</b>	Avoid contact with skin or clothing. Skin contact should be minimised by wearing protective clothing including impervious gloves. Wash thoroughly with soap and water after handling.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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<b>APPEARANCE:</b>	Light brown aqueous suspension
<b>ODOUR:</b>	Typical fermentation (malt) odour
<b>MELTING/FREEZING POINT:</b>	Approx. 0°C
<b>BOILING POINT:</b>	Approx. 100°C
<b>BULK DENSITY:</b>	1.06-1.1 g/mL
<b>SOLUBILITY:</b>	Disperses well in water
<b>VAPOUR PRESSURE:</b>	Not determined
<b>VISCOSITY:</b>	250-1000cps at 25°C
<b>pH:</b>	4.6 – 5.0

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## SECTION 10: STABILITY AND REACTIVITY

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<b>CHEMICAL STABILITY:</b>	Stable. No oxidising or reducing properties.
<b>INCOMPATIBILITY:</b>	Alkalinity inactivates product. Diluted or undiluted product can cause corrosion if left in prolonged contact with aluminium surfaces (eg spray equipment, aircraft components).
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	None that are known. Hazardous polymerisation will not occur.

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## SECTION 11: TOXICOLOGICAL INFORMATION

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### Acute (Product Specific)

Eye irritation:	N/D. In an eye irritation test with a similar formulation, transient, redness and conjunctival irritation was observed in test animals. No positive ocular effects were observed.
Oral LD <sub>50</sub> (rat):	>5,000 mg/kg (rat) for a similar formulation
Dermal LD <sub>50</sub> (rabbits):	>5,000 mg/kg (rabbit) for a similar formulation
Inhalation toxicity:	N/D. >5.34 mg/L (rat). No lethality was observed in rats after a 4hour whole body exposure to a similar formulation of the product as an undiluted aerosol.
Irritation of the skin (rabbits):	N/D. In a skin irritation test with a similar formulation transient, mild to moderate redness was observed at the site of application in rabbits.
Sensitisation:	N/D. In a sensitization test with guinea pigs and a similar formulation, eight of ten animals exhibited a positive reaction. Considered to be a mild sensitizer.

### Chronic/Carcinogenicity

No adverse effects known. None of the components are classified as carcinogens.

### Teratology (Birth Defects) Information

No adverse effects known

### Reproduction Information

No adverse effects known

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## SECTION 12: ECOLOGICAL INFORMATION

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### Environmental Fate

**Hydrolysis:** Not available

**Photolysis:** Not available

**Soil half life:** Not available

**Water solubility:** Not available

### Ecotoxicity

**Avian** Low Toxicity to fish and wildlife

**Aquatic** Low Toxicity to fish and wildlife

**Other non-target organisms** Low Toxicity to fish and wildlife

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## SECTION 13: DISPOSAL CONSIDERATIONS

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Puncture, or shred and bury empty containers in a local authority landfill. If not available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots. Empty containers and product should NOT be burnt.

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## SECTION 14: TRANSPORT INFORMATION

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Store in the closed, original container in a well-ventilated area, as cool as possible. Keep out of reach of children. Do not store in direct sunlight. This product is a biological larvicide containing crystals of protein and bacterial spores. Activity can be impaired unless product is protected from high temperature at all times. When transporting keep shaded. Avoid standing containers in direct sunlight in the field or on airstrips. Do not leave in car boot or other enclosed space on a sunny day. Do not store at 30°C or above.

**ADG Code:** Not a Dangerous Good

**HAZCHEM Code:** Not Applicable

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## SECTION 15: REGULATORY INFORMATION

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This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA).

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## SECTION 16: OTHER INFORMATION

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### Abbreviations:

**NA** Not Applicable

**NDA** No Data Available

**Revision date:** September 2009

**Revision number:** 1

THE INFORMATION GIVEN IN THIS MSDS IS BASED ON DATA AVAILABLE TO US AS OF THE REVISION DATE GIVEN HEREIN, AND BELIEVED TO BE CORRECT. CONTACT SUMITOMO CHEMICAL AUSTRALIA TO CONFIRM IF YOU HAVE THE MOST CURRENT MSDS.