

**VectoBac<sup>®</sup> 12AS**

Issued: April 2002

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

Product Label Name: **VectoBac<sup>®</sup> 12AS**

Supplier: Valent BioSciences™  
A Division of Philagro SA (Pty) Ltd.  
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7129  
Tel (021) 851 4163. Fax (021) 851 4067

Emergency Telephone: **Clean up & Spill: 0800 00 5817**  
**Tygerberg Hospital Poison Centre:**  
**(021) 931 6129**  
**(Off Shore) 09 1 651 632 6184**

**2. COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical name: *Bacillus thuringiensis subsp. israelensis*

A biological larvicide.

A suspension concentrate.

INGREDIENT	CAS No.	Concentration	Symbol	R-phrases
<i>Bacillus thuringiensis subsp. israelensis</i>	-	1 200 ITU*/mg 12 g a.i./l	-	-

\* International Toxic Units

**3. HAZARDS IDENTIFICATION**

May be irritating to skin and eyes, and may be a skin sensitizer.

**4. FIRST AID MEASURES**

Eye Contact: Immediately irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. If irritation persists or signs of toxicity occur, obtain medical attention.

Skin Contact: Take off immediately all contaminated clothing. Wash skin immediately with cold water, followed by soap and water. Do not rub the skin. Such action is essential to minimise contact with the skin. If irritation persists or signs of toxicity occur, obtain medical attention. Contaminated clothing should be washed before re-use.

Inhalation: Remove patient from exposure. If signs of toxicity occur, obtain medical attention.

Ingestion: If signs of toxicity occur, seek medical attention and show this data sheet, if possible. Never give anything by mouth to an unconscious patient.

**Medical Advice:** Symptomatic and supportive therapy as indicated.

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**5. FIRE FIGHTING MEASURES**

Keep fire exposed containers cool by spraying with water.

Extinguishing Media: For small fires use foam, carbon dioxide , dry powder extinguishant. For large fires use foam or water fog; avoid use of water jet. Contain run-off water with, for example, temporary earth barriers.

Fire Fighting Protective Equipment: A self contained breathing apparatus and suitable protective clothing must be worn in fire conditions.

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**6. ACCIDENTAL RELEASE MEASURES**

Personal precautions: Insure suitable protection during removal of spillage. This means wearing eye protection, chemically resistant gloves, boots and coveralls.

Clean up methods: Adsorb spillage onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Wash the spilled area with water. Washing must be prevented from entering surface water drains.

Spillage or uncontrolled discharges into water courses must be alerted to Department Water Affairs/Environment.

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**7. HANDLING AND STORAGE****Handling**

Read the label before use.

Avoid contact with skin and eyes. Avoid inhalation of spray mist. When using product do not eat, drink, or smoke. Wash thoroughly with soap and water after handling.

**Storage**

Safe storage advice: Store under lock and key. Keep in original container, tightly sealed. Store in a cool dry place out of direct sunlight. Store away from food, drink, and animal feeding stuffs.

Storage Life: Physically and chemically stable for at least 2 years from date of manufacture when stored in the original unopened sales container at ambient temperatures (15-30<sup>0</sup> C ).

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**8. EXPOSURE CONTROL/PERSONAL PROTECTION**

When using this product refer to label for details.

Nitrile rubber gloves and eye protection (face shield) must be worn when handling this product.

Engineering controls: Provide adequate ventilation.

**Occupational Exposure Limits**

Inert ingredients: (identity withheld as a trade secret)

8 HR TWA: 50 ppm total vapour and aerosol,

10 mg/m<sup>3</sup> aerosol alone (AIHA WEEL) for a minor component.

Not applicable to field use.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

Form	: Suspension.
Colour	: Light brown.
Odour	: Not available.
Boiling point	: Not determined.
Flash point	: Does not flash
Auto ignition Temp.	: Not determined.
Explosive properties	: Not determined.
Explosive limits	: Not determined.
Oxidizing properties	: Not applicable
Vapour pressure	: Not determined.
Bulk density (g/ml)	: 1,06 – 1,10
Solubility	: Disperses well in water.
pH – Value	: 4,6 – 5,0.
Viscosity	: 250-1000 cps at 25 °C

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**10. STABILITY AND REACTIVITY**

Hazardous decomposition products: Combustion and thermal decomposition may evolve toxic and irritant vapours.

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**11. TOXOLOGICAL INFORMATION****Acute Toxicity (Lethal Doses)**

Acute Oral LD<sub>50</sub> (rats) : > 5 000 mg/kg.

Low oral toxicity.

Acute Dermal LD<sub>50</sub> (rabbits) : > 5 000 mg/kg.

Low dermal toxicity.

Inhalation (rat) : Not lethal in an inhalation study at an aerosol concentration of 5,34 mg/l/4 hours.

Unlikely to cause harmful effects when handled and used as directed on the label.

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**11. TOXOLOGICAL INFORMATION (continued)****Acute Toxicity (irritation, sensitisation etc.)**

Eye irritation (rabbit): Produced mild redness, swelling and discharge that cleared in 72 hours in an eye irritation test in rabbits.

Skin irritation (rabbit): Mild to moderate redness, clearing in 13 days, was seen in a skin irritation test in rabbits.

Skin Sensitisation : N/D. Eight of ten animals (guinea pigs) positive with a similar formulation.

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**12. ECOLOGICAL INFORMATION****Toxicity to aquatic organisms:**

LC<sub>50</sub> : >370 mg/l (Rainbow Trout). LC<sub>50</sub> : >600 mg/l (Bluegill Sun fish).

NOEC = 5,7 mg/l. LOEC = 50 mg/l (*Daphne magna*).

Low toxicity to aquatic organisms .

**Toxicity to birds:**

3077 mg/kg/day/5 days (Bobwhite quail).

No sign of toxicity or pathogenicity in Mallard Duck

Low toxicity to birds.

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**13. DISPOSAL CONSIDERATIONS**

Do not contaminate rivers, dams or any other water source with product or used containers. Empty containers completely and destroy by perforation and flattening. Bury in an approved dumping site. Do not re-use for any other purpose.

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**14. TRANSPORT INFORMATION**

Not classified as dangerous for transport.

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**15. REGULATORY INFORMATION**

Danger Group IV (RSA Classification)

Hazard Symbols : None.

Risk Phrases : None.

Safety Phrases : S01/02: Keep locked up and out of reach of children.  
: S13: Keep away from food, drink and animal feeding stuff.  
: S28: After contact with the skin wash immediately with water and soap.  
: S36/37/39: Wear suitable protective clothing, gloves and eye/face shield.  
: S46: If swallowed , seek medical advice and show this document or container.

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**16. OTHER INFORMATION**

Use: Biological larvicide.

**LEGEND:**

N/A = Not Applicable

N/D = Not Determined

N/L = Not Listed

L = Listed

C = Ceiling

S = Short-term

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