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MSDS# BIO-0300 Rev. 3 ISSUED 03/14/12

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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MATERIAL NAME: VectoBac® DT

EPA Reg.No.: 73049-447

Code Number: N/D
List Number: N/D

SYNONYMS: VBC-60046

MANUFACTURER: Valent BioSciences Corporation

870 Technology Way, Suite 100 Libertyville, Illinois 60048

EMERGENCY TELEPHONE NUMBERS Emergency Health or Spill:

Outside the United States: 651-632-6184 Within the United States: 877-315-9819

2. COMPOSITION/INFORMATION ON INGREDIENTS

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INGREDIENT NAME: Bacillus thuringiensis, var. israelensis

CONCENTRATION: 37.4 %

CAS NUMBER: 68038-71-1

OSHA-PEL 8HR TWA: N/L

STEL: N/L

CEILING: N/L

ACGIH-TLV 8HR TWA: N/L

STEL: N/L

CEILING: N/L

OTHER 8HR TWA: N/A LIMITS STEL: N/A

CEILING: N/A

INGREDIENT NAME: Other/Inert Ingredients - identity is Trade Secret

CONCENTRATION: 62.6 %

CAS NUMBER: N/A

OSHA-PEL 8HR TWA: N/L

STEL: N/L

CEILING: N/L

ACGIH-TLV 8HR TWA: N/L

STEL: N/L

CEILING: N/L

OTHER 8HR TWA: N/A

LIMITS STEL: N/A

CEILING: N/A

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## 3. HAZARDS INFORMATION

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EMERGENCY OVERVIEW: Product is non-toxic by ingestion, skin contact, or

inhalation.

ROUTE(S) OF ENTRY: Skin: No

Inhalation: No
Ingestion: No

SKIN CONTACT: Non-irritant.

SKIN SENSITIZATION: Non-sensitizer

EYE CONTACT: Non-irritant

TARGET ORGANS: N/D

CARCINOGENICITY: NTP: N/L IARC: N/L OSHA: N/L ACGIH: N/L

None

SIGNS AND SYMPTOMS: Based on data from a similar granular formulation, direct contact with eyes or skin may cause mild transient irritation.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: N/D.

## 4. FIRST AID MEASURES

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EYES: 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: 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.

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### 5. FIRE FIGHTING PROCEDURES

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FLASH POINT: N/A
FLASH POINT METHOD: N/A
LOWER EXPLOSIVE LIMIT(%): N/A
UPPER EXPLOSIVE LIMIT(%): N/A
AUTOIGNITION TEMPERATURE: N/A

FIRE & EXPLOSION HAZARDS: Non-flammable and no explosive properties.

EXTINGUISHING MEDIA: Use appropriate medium for the underlying cause of the fire.

FIRE FIGHTING INSTRUCTIONS: Wear protective clothing and self-contained breathing apparatus.

# 6. ACCIDENTAL RELEASE MEASURES

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SPILL OR RELEASE PROCEDURES: Recover product and place in an appropriate container for disposal. Avoid breathing dust. Ventilate and wash the spill area.

### 7. HANDLING AND STORAGE

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HANDLING: N/D.

STORAGE: Store product in closed container in a cool and dry place.

SPECIAL PRECAUTIONS: N/A.

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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ENGINEERING CONTROLS: Use local exhaust.

RESPIRATORY PROTECTION: Not usually required. If necessary, use a MSHA/NIOSH approved (or equivalent) respirator with a dust/mist filter.

SKIN PROTECTION: Impervious gloves, clothing to minimize skin contact.

EYE PROTECTION: Not usually required. If necessary, use safety glasses or goggles.

OTHER PROTECTION: Wash thoroughly with soap and water after handling.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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APPEARANCE/PHYSICAL STATE: Beige/tan colored, small cylindrical tablet

ODOR: Faint organic/malt odor

BOILING POINT: N/A

MELTING/FREEZING POINT: N/A

VAPOR PRESSURE (mm Hg): N/A

VAPOR DENSITY (Air=1): N/D

EVAPORATION RATE: N/A
BULK DENSITY: N/D

SPECIFIC GRAVITY: N/D

SOLUBILITY: Suspends readily in water.

pH: 4.5-6.5 as an aqueous solution.

VISCOSITY: N/A

# 10. STABILITY AND REACTIVITY

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CHEMICAL STABILITY: Stable. No oxidizing or reducing properties.

INCOMPATIBILITIES: Alkalinity inactivates product.

HAZARDOUS DECOMPOSITION PRODUCTS: None that are known.

HAZARDOUS POLYMERIZATION: Will not occur.

### 11. TOXICOLOGICAL INFORMATION

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Acute Toxicity

ORAL: N/D. LD50 (rat) > 5,000 mg/kg for Bti technical powder.

DERMAL: N/D. LD50 (rabbit) > 5,000 mg/kg for Bti technical powder.

INHALATION: N/D. LC50 (rat) > 2.84 mg/l (4 hr) for Bti technical powder. (Highest obtainable inhalation chamber concentration)

 ${\tt CORROSIVENESS:} \ {\tt N/D.} \ {\tt Not} \ {\tt expected} \ {\tt to} \ {\tt have} \ {\tt any} \ {\tt corrosive} \ {\tt properties.}$ 

DERMAL IRRITATION: N/D. Transient, slight or mild irritation noted in a dermal toxicity study with a granular formulation similar to this product.

OCULAR IRRITATION: N/D. Transient, redness and conjunctival irritation observed in test animals in a study with a granular formulation similar to this product. No positive ocular effects were observed.

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11. TOXICOLOGICAL INFORMATION, continued

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DERMAL SENSITIZATION: N/D. In a study with a granular formulation similar to this product, no skin sensitization was observed.

SPECIAL TARGET ORGAN EFFECTS: N/D

CARCINOGENICITY INFORMATION: N/D. None of the components are classified as carcinogens.

12. ECOLOGICAL INFORMATION

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ECOLOGICAL INFORMATION: N/D

13. DISPOSAL CONSIDERATIONS

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WASTE DISPOSAL METHODS: Dispose of product in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

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DOT STATUS: Not Regulated

PROPER SHIPPING NAME: N/A

HAZARD CLASS: N/A

UN NUMBER: N/A

PACKING GROUP: N/A

REPORTABLE QUANTITY: N/A

IATA/ICAO STATUS: Not Regulated

PROPER SHIPPING NAME: N/A

HAZARD CLASS: N/A

UN NUMBER: N/A

PACKING GROUP: N/A

REPORTABLE QUANTITY: N/A

IMO STATUS: Not Regulated

PROPER SHIPPING NAME: N/A

HAZARD CLASS: N/A

UN NUMBER: N/A

PACKING GROUP: N/A

REPORTABLE QUANTITY: N/A

FLASH POINT: N/A

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15. REGULATORY INFORMATION

TSCA STATUS: Exempt RCRA STATUS: N/D

CERCLA STATUS: N/D PROP 65 (CA): N/D

SARA STATUS: N/D

16. OTHER INFORMATION

REASON FOR ISSUE: Updated the MSDS name, added the EPA Reg# and added

the synonym.

APPROVAL DATE: 03/14/12 SUPERSEDES DATE: 01/02/12

LEGEND: N/A = Not Applicable

N/D = Not Determined

N/L = Not Listed

L = Listed
C = Ceiling
S = Short-term

® = Registered Trademark of Valent BioSciences

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