1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL NAME: VectoBac® WDG
Gnatrol® DG
EPA Registration No. 73049-56

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

INGREDIENT NAME: Bacillus thuringiensis, subsp. israelensis (35-45%)
CAS/RTECS NUMBERS: 68038-71-1 / N/A
OSHA-PEL 8HR TWA: N/L
STEEL: N/L
CEILING: N/L
ACGIH-TLV 8HR TWA: N/L
STEEL: N/L
CEILING: N/L
OTHER 8HR TWA: N/A
LIMITS STEEL: N/A
CEILING: N/A

INGREDIENT NAME: Inert Ingredients - identity withheld as a Trade Secret
CAS/RTECS NUMBERS: N/A / N/A
OSHA-PEL 8HR TWA: N/L
STEEL: N/L
CEILING: N/L
ACGIH-TLV 8HR TWA: N/L
STEEL: N/L
CEILING: N/L
OTHER 8HR TWA: N/A
LIMITS STEEL: N/A
CEILING: N/A
2. COMPOSITION/INFORMATION ON INGREDIENTS, continued

EEC (European Community): N/A
Symbol Designation: N/A
Risk Phrases: N/A
Safety Phrases: N/A

3. HAZARDS INFORMATION

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 RATING: NTP: N/L IARC: N/L OSHA: N/L ACGIH: N/L None

SIGNS AND SYMPTOMS: Direct contact with eyes or skin may cause mild irritation.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: N/D

4. FIRST AID MEASURES

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.
4. FIRST AID MEASURES, continued

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.

5. FIRE FIGHTING PROCEDURES

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

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

HANDLING: N/D

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

SPECIAL PRECAUTIONS: N/D
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE: Granule
   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: 0.4 g/mL
   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

CHEMICAL STABILITY: Stable. No oxidizing or reducing properties.

INCOMPATIBILITIES: Alkalinity inactivates product.

HAZARDOUS DECOMPOSITION PRODUCTS: None that are known.

HAZARDOUS POLYMERIZATION: No.
11. TOXICOLOGICAL INFORMATION
---------------------------------

Acute Toxicity

ORAL LD50: LD50 (rat) > 5,000 mg/kg

DERMAL LD50: LD50 (rabbit) > 5,000 mg/kg

INHALATION LC50: No lethality was observed in rats after a 4 hour exposure at the highest obtainable inhalation exposure chamber concentration.

CORROSIVENESS: N/D. Not expected to have any corrosive properties.

DERMAL IRRITATION: Transient, slight or mild irritation noted in a dermal toxicity study with this product.

OCULAR IRRITATION: Transient, redness and conjunctival irritation observed in test animals in a study with this product. No positive ocular effects were observed. Classified as a non-irritant.

DERMAL SENSITIZATION: In a study with 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
-----------------------------

ECOLOGICAL INFORMATION: N/D

13. DISPOSAL CONSIDERATIONS
-------------------------------

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

DOT          STATUS: Not Regulated
PROPER SHIPPING NAME: N/D
HAZARD CLASS: N/D
UN NUMBER: N/D
PACKING GROUP: N/D
REPORTABLE QUANTITY: N/D

IATA/ICA0     STATUS: Not Regulated
PROPER SHIPPING NAME: N/D
HAZARD CLASS: N/D
UN NUMBER: N/D
PACKING GROUP: N/D
REPORTABLE QUANTITY: N/D

IMO STATUS: Not Regulated
PROPER SHIPPING NAME: N/D
HAZARD CLASS: N/D
UN NUMBER: N/D
PACKING GROUP: N/D
REPORTABLE QUANTITY: N/D
FLASH POINT: N/D

15. REGULATORY INFORMATION
-----------------------------

TSCA STATUS: Exempt
CERCLA STATUS: N/D
SARA STATUS: N/D
RCRA STATUS: N/D
PROP 65 (CA): N/D
16. OTHER INFORMATION

REASON FOR ISSUE: Updated Hazard Information (Section 3) and Toxicological Information (Section 11).

APPROVAL DATE: 04/16/03
SUPERSEDES DATE: 06/12/01
MSDS NUMBER: BIO-0034 Rev. 1

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
(TM) = Registered Trademark of Valent BioSciences

The information and recommendations contained herein are based upon tests believed to be reliable. However, Valent BioSciences does not guarantee their accuracy or completeness nor shall any of this information constitute a warranty, whether expressed or implied, as to the safety of the goods, the merchantability of the goods, or the fitness of the goods for a particular purpose. Adjustment to conform with actual conditions of usage may be required. Valent BioSciences assumes no responsibility for results obtained or for incidental or consequential damages arising from the use of these data. No freedom from infringement of any patent, copyright or trademark is to be inferred.