

Biobit(R) HP

ISSUED 04/09/01

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL NAME: Biobit(R) HP

EPA Registration No. 73049-54

List Number: 11379 * 60185

MANUFACTURER: Valent Biosciences Corporation

870 Technology Way, Suite 100

Libertyville, IL 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. kurstaki

CONCENTRATION: 6.4000 %

CAS/RTECS NUMBERS: 68038-71-1/ 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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2. COMPOSITION/INFORMATION ON INGREDIENTS, continued

INGREDIENT NAME: Inert ingredients - identity withheld as a Trade
 Secret
CONCENTRATION: 93.6000 %
CAS/RTECS NUMBERS: N/A, 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

EEC (European Community):

Symbol Designation: N/A

Risk Phrases: N/A

Safety Phrases: S2 Keep out of reach of children. S3 Keep in
 a cool place. S13 Keep away from food, drink
 and animal feeding stuffs.3. HAZARDS INFORMATION
-----EMERGENCY OVERVIEW: It may cause transient skin and eye irritation and
 gastrointestinal upset. Chronic inhalation of dust may cause
 respiratory irritation and shortness of breath.ROUTE(S) OF ENTRY: Skin: No
 Inhalation: No
 Ingestion: No

INGESTION RATING: None

SKIN ABSORPTION RATING: None

INHALATION RATING: N/D

CORROSIVENESS RATING: None

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3. HAZARDS INFORMATION, continued

SKIN CONTACT RATING: None

SKIN SENSITIZATION RATING: N/D

EYE CONTACT RATING: None

TARGET ORGANS: Possibly skin, eyes and respiratory tract

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

ACGIH: N/L

None

SIGNS AND SYMPTOMS: N/D. May cause irritation of nose, throat, lungs, skin and eyes. Chronic inhalation of dust may cause asthma-like effects. Ingestion may cause purging, diarrhea, fluid loss, blood in stools, hypotension, and hypernatremia (elevated blood sodium).

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: N/D. Pre-existing skin, eye, gastrointestinal, and respiratory ailments

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.

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

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4. FIRST AID MEASURES, continued

necessary.

5. FIRE FIGHTING PROCEDURES

FLASH POINT: N/D

FLASH POINT METHOD: N/D

LOWER EXPLOSIVE LIMIT(%): N/D

UPPER EXPLOSIVE LIMIT(%): N/D

AUTOIGNITION TEMPERATURE: N/D

FIRE & EXPLOSION HAZARDS: N/D

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. Ventilate and wash the spill area.

7. HANDLING AND STORAGE

HANDLING: Avoid formation of dust during handling/pouring.

STORAGE: Reclose containers of unused Biobit HP. Store in a dry place.

SPECIAL PRECAUTIONS: Wash hands after handling this compound.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use local exhaust

RESPIRATORY PROTECTION: Air purifying respirator with dust/mist filter

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION, continued

(N95), if needed.

SKIN PROTECTION: Impervious.

EYE PROTECTION: Goggles.

OTHER PROTECTION: Wear tyvek coveralls during dusty operations.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE: Light brown powder

ODOR: Pungent, bacterial odor

BOILING POINT: N/D

MELTING/FREEZING POINT: N/D

VAPOR PRESSURE (mm Hg): N/D

VAPOR DENSITY (Air=1): N/D

EVAPORATION RATE: N/D

BULK DENSITY: 0.73-0.85 g/mL

SPECIFIC GRAVITY: N/D

SOLUBILITY: Readily suspendable in water.

pH: 5.05-5.55 (as a 10% solution in water)

VISCOSITY: N/D

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: N/D

INCOMPATIBILITIES: Alkalinity inactivates product.

HAZARDOUS DECOMPOSITION PRODUCTS: N/D

HAZARDOUS POLYMERIZATION: N/D

11. TOXICOLOGICAL INFORMATION

ORAL TOXICITY: LD50 > 5000 mg/kg in rats. EPA Category IV.

DERMAL TOXICITY: LD50 > 2500 mg/kg in rabbits. EPA Category III.

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11. TOXICOLOGICAL INFORMATION, continued

INHALATION TOXICITY: Not lethal in an inhalation study at the maximum achievable concentration of 5.02 mg/L. EPA Category IV.

CORROSIVENESS: No

DERMAL IRRITATION: Slight skin reactions up to 24 hours after treatment. EPA Category IV.

OCULAR IRRITATION: Mild irritation. Reversible within 7 days. EPA Category III.

DERMAL SENSITIZATION: N/D

SPECIAL TARGET ORGAN EFFECTS: N/D. A major ingredient of this formulation has been shown to cause fetal abnormalities in mice following parenteral administration (TDLo = 60 mg/kg) and effects on the newborn (mice) following oral administration (TDLo = 14 g/kg).

CARCINOGENICITY INFORMATION: N/D

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Studies on non-targets have been performed without identifying any organisms at risk. The following species have been included in the testing. Mammals (rats, rabbits), Freshwater aquatic invertebrate (Daphnia Magna, Rainbow Trout), Birds (Mallard Duck, Bobwhite), and Non-target insects (Green Lacewing Larvae, Hymenopteran Pedibus Foveolatus, Ladybird beetles, and Honey bees).

13. DISPOSAL CONSIDERATIONS

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

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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/ICAO 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

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16. OTHER INFORMATION

LEGEND: N/A = Not Applicable
N/D = Not Determined
N/L = Not Listed
L = Listed
C = Ceiling
S = Short-term
(R) = Registered Trademark of Valent BioSciences
(TM) = Registered Trademark of Valent BioSciences

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APPROVED BY: RHW