

Foray® 48B

MSDS# BIO-0315 Rev. 3

ISSUED 03/19/08

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL NAME: Foray® 48B

EPA Reg.No.: 73049-427

Drug Code: N/A

List Number: N/A

SYNONYMS: VBC-60013

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, var. kurstaki

CONCENTRATION: 12.65%

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: Inert/Other ingredients - Proprietary Information

CONCENTRATION: 87.35%

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

EMERGENCY OVERVIEW: Product is non-toxic by ingestion, skin contact, or inhalation. May cause mild eye irritation.

ROUTE(S) OF ENTRY: Skin: No
Inhalation: No
Ingestion: No

INGESTION RATING: None

SKIN ABSORPTION RATING: N/D

INHALATION RATING: None

CORROSIVENESS RATING: N/D

SKIN CONTACT RATING: None

SKIN SENSITIZATION RATING: None

EYE CONTACT RATING: Mild irritant

TARGET ORGANS: Eyes

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

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

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: N/D Pre-existing eye lesions

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 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.

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4. FIRST AID MEASURES (continued)

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/D

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 media for underlying cause of 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: The usual precautions for handling chemicals should be observed.

STORAGE: Store product in tightly closed containers in cool and dry place when not in use.

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 dust-mist/organic vapor cartridge combination.

SKIN PROTECTION: Butyl or nitrile rubber gloves, clothing to minimize skin contact.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION (continue)

EYE PROTECTION: Safety glasses or goggles.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE: Light brown opaque liquid

ODOR: Yeast-like

BOILING POINT: Approx. 100°C (212°F)

MELTING/FREEZING POINT: Approx. 0° (32°)

VAPOR PRESSURE (mm Hg): N/D

VAPOR DENSITY (Air=1): >1

EVAPORATION RATE: <1

BULK DENSITY: 1.0-1.2 g/cm³

SPECIFIC GRAVITY: N/D

SOLUBILITY: Miscible in water

pH: 4.2-4.8 as a 10% solution in water

VISCOSITY: 561 cp at 25°C

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable. No oxidizing or reducing properties.

INCOMPATIBILITIES: N/D

HAZARDOUS DECOMPOSITION PRODUCTS: N/D

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

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

DERMAL LD50: N/D. > 5,000 mg/kg (rat)

INHALATION LC50: > 2.14 mg/L (rat)

CORROSIVENESS: N/D.

DERMAL IRRITATION: Slightly irritating to the rabbit skin. Effects were reversible within 48 hours.

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11. TOXICOLOGICAL INFORMATION

OCULAR IRRITATION: Mild irritant to the rabbit eye. Effects were reversible within 7 days.

DERMAL SENSITIZATION: Not a contact sensitizer in the Guinea pig

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/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: Updates Section 3 Hazard information; Section 9.
Physical and Chemical Properties;

APPROVAL DATE: 03/09/2008

MSDS Number: BIO-0315

SUPERSEDES DATE: 02/19/2008

EPA Reg. No. 73049-427

LEGEND: N/A = Not Applicable

N/D = Not Determined

N/L = Not Listed

L = Listed

C = Ceiling

S = Short-term

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