

Foray® 48BC

MSDS# BIO-0009 Rev. 9

ISSUED 07/10/14

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL NAME: Foray® 48BC

EPA Reg.No.: 73049-46  
PMRA Reg. No. 24978  
Code Number: 11046  
List Number: 60178

SYNONYMS: Biobit® XL Foray 48BA

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: 17.19%

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: 82.81%

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 be irritating to skin and eyes.

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

SKIN CONTACT:               Mild irritant

SKIN SENSITIZATION: Possible mild sensitizer (unconfirmed)

EYE CONTACT:                Mild 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.

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

FLASH POINT: N/A (Aqueous suspension)

FLASH POINT METHOD: N/A

LOWER EXPLOSIVE LIMIT(%): N/A

UPPER EXPLOSIVE LIMIT(%): N/A

AUTOIGNITION TEMPERATURE: N/A

FIRE &amp; 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 in a closed container in a cool, dry place.

SPECIAL PRECAUTIONS: Wash thoroughly with soap and water after handling.  
Keep impervious gloves on until all potentially contaminated personal protective equipment is removed.8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use local exhaust

RESPIRATORY PROTECTION: Not usually required. If necessary, use a dust/mist respirator meeting NIOSH standards of at least N-95, R-95 or P-95.

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

APPEARANCE/PHYSICAL STATE: Light brown aqueous suspension  
ODOR: Pungent, musty 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: 1.12-1.2 g/cm<sup>3</sup>  
SPECIFIC GRAVITY: N/D  
SOLUBILITY: Readily mixable with water  
pH: 4.1-4.8 as a 10% solution in water  
VISCOSITY: N/D

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Not chemically reactive.  
INCOMPATIBILITIES: Alkalinity inactivates product.  
HAZARDOUS DECOMPOSITION PRODUCTS: Not known to occur.  
HAZARDOUS POLYMERIZATION: Not known to occur.

11. TOXICOLOGICAL INFORMATION

## Acute Toxicity

ORAL LD50: > 5,000 mg/kg (rat) for a similar formulation. EPA  
Toxicity Category IV

DERMAL LD50: > 2,500 mg/kg (rabbit) for a similar formulation. EPA  
Toxicity Category III

INHALATION LC50: In a nose-only inhalation study with rats with a similar  
formulation, no lethality was observed at the highest attainable aerosol  
concentration of 6.81 mg/liter for 4 hours.

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

DERMAL IRRITATION: Transient, slight or mild irritation noted in a dermal  
irritation study with a similar formulation. EPA Toxicity Category IV.

OCULAR IRRITATION: Transient, mild irritation was observed in test animals  
in a study a similar formulation. EPA Toxicity Category III.

DERMAL SENSITIZATION: N/D. The possibility of mild sensitzation exists  
with this formulation, however, this has not been confirmed by actual  
experience.

SPECIAL TARGET ORGAN EFFECTS: N/D

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

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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 organisms (Daphnia magna, Rainbow Trout); birds (Mallard, Bobwhite); and non-target insects (Green Lacewing larvae, Ladybird Beetles, Honey Bee).

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

15. REGULATORY INFORMATION

TSCA STATUS: Exempt

RCRA STATUS: N/D

CERCLA STATUS: N/D

PROP 65 (CA): N/D

SARA STATUS: N/D

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16. OTHER INFORMATION

REASON FOR ISSUE: General review

APPROVAL DATE: 07/10/14

SUPERSEDES DATE: 10/17/11

LEGEND: N/A = Not Applicable

N/D = Not Determined

N/L = Not Listed

L = Listed

C = Ceiling

S = Short-term

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