

DiPel 2X Biological Insecticide Wettable Powder

SDS# VBC-0051 Revision 0

ISSUED 06/07/15

[Classification according to OSHA; 29 CFR § 1910.1200, (3/12/2012)]

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY**1.1 Product Identifier****MATERIAL NAME:** DiPel 2X Biological Insecticide Dry Flowable**Synonyms:** DiPel 2X WP, DiPel PM Plus, DiPel 6.4 WP, Bactospeine HPWP, Biobit HP, Biobit HPWP, Biobit 2X, Biobit HP 6.4 WP**EPA Reg No.:** 73049-8**Code Number:** 15639**List Number:** 05209, 11379, 60185**Chemical Family:** Microbial, Btk strain ABTS-351**Substance Registration Number(s)[REACH]:** N/A**1.2 Relevant Identified Uses and Uses Advised Against****Identified Uses:** Agricultural Insecticide**Uses Advised Against:** It is a violation of Federal law to use this product in a manner inconsistent with its FIFRA pesticide labeling.**1.3 Details of the supplier of the Safety Data Sheet****Supplied By:** Valent BioSciences Corporation
870 Technology Way
Libertyville, Illinois 60048**1.4 EMERGENCY TELEPHONE NUMBERS****Emergency Health or Spill:**

Outside the United States: 651-632-6184

Within the United States: 877-315-9819

2. HAZARDS IDENTIFICATION**2.1 Classification of the Substance or Mixture**

Not Classified

2.2 Labeling Elements**Symbol(s)**

Symbols not required

Signal Word

WARNING

Hazard Statement(s)

Causes eye irritation

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Precautionary Statement:

Prevention

- Avoid breathing dust /mist /spray
- Wash thoroughly after handling
- Contaminated work clothing should not be allowed out of the workplace
- Wear protective clothing/eye protection/face protection
- Avoid release to the environment

Response

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/ attention.
- IF ON SKIN: Wash with soap and water.
- Take off contaminated clothing and wash it before reuse.

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

Safety

- Avoid contact with skin and eyes
- In case of contact with skin or eyes, rinse immediately w/ plenty of water and seek medical advice.
- Wear suitable protective clothing and eye/face protection

2.3 Other Hazards

None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component Name	EC No.	(Classification)	Percent
68038-71-1	Btk Fermentation solids		Not classified	64.0
Trade Secret	Other ingredients		Not classified	36.0

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

GENERAL: In all cases of doubt, seek medical attention.

EYES: Remove from source of exposure. Flush with copious amounts of water. Remove contact lenses, if present and easy to do, after the first 5 minutes, then continue rinsing. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.

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SKIN: Remove from source of exposure. Take off contaminated clothing. Flush with copious amounts of water. Cover irritated skin with an emollient. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

INGESTION: Remove from source of exposure. Move person to fresh air. Do NOT induce vomiting. Give large quantities of water. 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. If person is not breathing, call 911, then give artificial respiration.

4.2 Most important Symptoms and Effects, both Acute and Delayed**Acute**

Eye irritation

Delayed

No information on significant adverse effects

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively

5. FIRE FIGHTING PROCEDURES**5.1 Extinguisher Media****Suitable Extinguisher Media**

Dry chemical, water spray, foam or carbon dioxide. Use appropriate medium for the underlying cause of the fire.

Unsuitable Extinguisher Media

None known

5.2 Specific Hazards Arising from the Chemical

None known

Thermal decomposition products

Carbon oxides, nitrogen oxides

5.3 Advice to Firefighters**Protective Equipment and precautions for firefighters**

Fire fighter should wear full-face, self-contained breathing apparatus and impervious protective

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clothing. Fire fighters should avoid inhaling combustion products. See Section 8 (Exposure Controls / Personal Protection)

Fire & Explosive hazard

Not expected to be flammable.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

Use in a well-ventilated area. Respiratory protection such as a dust mask should be worn during normal product use. Wear eye protection appropriate to handling activities. Wear impervious gloves. Wear appropriate body coverings if contact may occur. Where exposure level is not known, wear respirator protection suitable for expected level of exposure, in addition to the personal protection as recommended in Section 8.

6.2 Environmental Precautions

Keep out of drains, sewers, ditches and waterways. Avoid runoff to waterways and sewers. Dispose of excess product and washwaters according to local regulations.

6.3 Methods and Materials for Containment and Cleaning Up

Ventilate area. Wear appropriate personal protective equipment. Recover product and place into appropriate container for disposal. Do not flush to sewer. Avoid generating dust.

6.4 Reference to Other Sections

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

US Regulations may require reporting spills of hazardous materials: See Section 15: REGULATORY INFORMATION for details on reportable quantities, if any.

7. HANDLING AND STORAGE**7.1 Precautions for Safe handling**

Ventilate. Avoid breathing dust or vapor. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink or smoke while working with product, obey reasonable safety precautions and practice good housekeeping. For filling operations respiratory protection may be recommended particularly in enclosed areas.

7.2 Conditions for Safe Storage, Including Incompatibilities

Protect against physical damage. Close containers of unused material. Store in a dry, cool, ventilated place, away from direct sunlight.

Incompatibilities

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None Known

7.3 Specific End Use(s)

Agricultural insecticide.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Component Exposure Limits

None

Derived No Effect Levels (DNELs)

No DNELs available

Predicted No Effect Concentrations (PNECs)

No PNECs available

8.2 Exposure Controls

Appropriate Engineering Controls

Provide general ventilation. Where adequate general ventilation is unavailable use process enclosure, local exhaust ventilation, or other engineering controls

SKIN PROTECTION:

Wear protective clothing, including boots and gloves. Wear gloves made of Latex or other impervious materials. Wash thoroughly with soap and water after handling.

EYE PROTECTION:

Wear goggles, safety glasses with side shields or full-face shield when splashing or spraying of materials is likely.

RESPIRATORY PROTECTION:

For filling operations if dust/mist is produced respiratory protection is recommended or where respiratory protection is warranted, use dust/mist filtering respirator (MSHA/NIOSH approved number prefix TC-21C or a NIOSH approved respirator with any N, P, R or HE filter). Wash thoroughly with soap and water after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Appearance:	Powder, light brown	Odor:	Organic/Malt
pH:	≈4.7 (10% dilution)	Odor Threshold:	Not determined

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Melting Point:	Not Applicable	Boiling Point:	Not Determined
Specific Gravity:	Not Determined	Solubility (H ₂ O):	Not Determined
Octanol/H ₂ O Coeff:	Not Determined	Bulk Density:	0.8 ± 0.1 g/ml
Molecular Weight:	Not Applicable	Evaporation Rate:	Not Applicable
Auto Ignition:	Not Determined	Decomposition Temp.:	Not Determined
Flash Point:	Not Determined	LFL:	Not Determined
Vapor Density:	Not Determined	UFL:	Not Determined
VOC:	Solid	Vapor Pressure:	Not Determined
Kinematic Viscosity:	Not Determined	Flammability Class:	Not flammable

10. CHEMICAL STABILITY AND REACTIVITY

10.1 Reactivity

Material does not pose a significant reactivity hazard.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage. Spontaneous reaction not possible.

10.3 Possibility of Hazardous Reactions

Does not undergo hazardous polymerization

10.4 Conditions to Avoid

None known

10.5 Incompatible Materials

None known

10.6 Hazardous Decomposition Products

Carbon oxides and unidentified organic compounds.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

Likely Routes of Exposure

Inhalation: Yes

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Eye Contact: Yes
Skin Contact: Yes
Ingestion: Not likely

Product (or TGA) where noted) Toxicology**Acute Effects**

Oral Toxicity: LD₅₀ > 5,000 mg/kg (rat) [EPA Toxicity Category IV]
Dermal Toxicity: LD₅₀ > 5,050 mg/kg (rabbit)
Inhalation Toxicity: LC₅₀ rat (4 hours): > 6.16 mg/L
Corrosiveness: Not corrosive.
Dermal Irritation: Mild to slightly-irritating, [EPA Toxicity Category IV]
Ocular Irritation: mildly-irritating, (cleared by day-7)
Dermal Sensitization: not a sensitizer (guinea pig)

Mutagenicity Information: Components of this product are not listed as mutagens.

Carcinogenicity Information: Components of this product are not listed as carcinogenic by NTP, IARC or OSHA.

Developmental/Reproductive Toxicity: This material is not teratogenic

Special Target Organ: Eye and mucus membrane Irritation.

Aspiration Hazard: Not Applicable

Repeat Dose Studies: Not Applicable, Acute Toxicity testing was all negative

12. ECOLOGICAL INFORMATION**12.1 Ecotoxicity (Data for a Concentrated Technical Powder)**

Do not allow into waterways or lakes.

Fish: LC₅₀ >2.87 x 10⁷ cfu/L (96-H, Rainbow Trout)

Bird:

LC₅₀ >2857 mg/kg (5.7 x 10¹⁰ cfu/kg) each day for 5 days (Sub-Acute Oral (dietary) - Bobwhite Quail)

Invertebrates: EC₅₀ >50 mg/L (48-Hr) (Daphnia)
21-day NOEC >5.0 mg/L (Daphnia)

Honeybee: Essentially Nontoxic to honeybee

12.2 Persistence and Degradability

No data available

12.3 Bioaccumulation potential

No data available

12.4 Mobility in Soil

No data available

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12.5 Results of PBT and vPvB assessment

Assessments not performed

12.6 Other adverse effects

None known

13. DISPOSAL CONSIDERATIONS**13.1 Waste Disposal Methods**

Dispose of product in accordance with federal, state, provincial, and local regulations. Prevent contamination of environment by wastes.

US EPA WASTE NUMBER & DESCRIPTIONS:

There is no applicable EPA waste number. This product, if discarded, is not expected to be a characteristic or listed hazardous waste.

14. TRANSPORTATION INFORMATION

DOT STATUS: Not Regulated as Hazardous by DOT
UN PROPER SHIPPING NAME: ()
HAZARD CLASS:
UN NUMBER:
PACKING GROUP:
MARINE POLLUTANT:
FREIGHT CLASSIFICATION:

IATA/ICAO STATUS: Not Regulated
PROPER SHIPPING NAME: ()
HAZARD CLASS:
UN NUMBER:
PACKING GROUP:
REPORTABLE QUANTITY:

IMO STATUS: Not Regulated
PROPER SHIPPING NAME: ()
HAZARD CLASS:
UN NUMBER:
PACKING GROUP:
REPORTABLE QUANTITY:

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15. REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations / Specific Legislation**

TSCA STATUS: Exempt

CERCLA STATUS: Not regulated as hazardous

SARA STATUS: Acute: No Chronic: No Fire: No CDT: No

RCRA STATUS: Not regulated as hazardous

State Right-To-Know: Not Listed

Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.

OSHA HAZARD COMMUNICATION STANDARD: Not defined by the OSHA Hazard Communication Standard, 29 CFR

15.2 EPA Pesticide Regulations

EPA Registration Number: 73049- 8

EPA Pesticide Label signal word: CAUTION

Product must have EPA Approved Pesticide Label attached to or accompanying all containers.

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions and limitations for its use.

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**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION**

Causes moderate eye irritation. Harmful if absorbed through the skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Reclose containers of unused DiPel® 2X. Store in a dry place.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling:

[For DiPel® 2X that is packaged in HDPE pails with a plastic bag inside or in fiber drums with a plastic bag inside] Nonrefillable container. Do not reuse or refill this container. Completely empty bag by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then, offer for recycling if available or dispose of empty bag in a sanitary landfill, by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. If outer pail or fiber drum is contaminated, dispose of it in the same manner as required for the bag.

16. OTHER INFORMATION**NFPA Hazard Ratings**

Health: 1
Flammability: 0
Instability: 0

HMIS Hazard Ratings

Health: 1
Flammability: 0
Instability: 0

0 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Extreme

REASON FOR ISSUE: New GHS rules

APPROVAL DATE: 04/23/15

SUPERSEDES DATE: -

LEGEND: N/A = Not Applicable

N/L = Not Listed

C = Ceiling

(R) = Registered Trademark of Valent BioSciences Corp.

(TM) = Registered Trademark of Valent BioSciences Corp.

N/D = Not Determined

L = Listed

S = Short-term

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This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.