

SAFETY DATA SHEET**1. IDENTIFICATION**

GENERAL USE: Biological Insecticide

COMMON NAME: PRINCIPLE™ WP

MANUFACTURED BY: BioWorks, Inc.
100 Rawson Rd, Suite 205
Victor, NY 14564

EMERGENCY TELEPHONE NUMBERS: BioWorks, Inc: 800-877-9443
CHEMTREC: 800-424-9300 (for USA and Canada)

2. HAZARDS IDENTIFICATION

GHS Classification: Respiratory Sensitizer – Category 1

Skin Sensitizer – Category 1

Signal Word: Danger

Pictogram:



Hazard Statement: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.

Precautionary Statements: Use only outdoors or in a well-ventilated area.
IF ON SKIN: Wash with plenty of soap and water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
Wash contaminated clothing before reuse

3. COMPOSITION/INFORMATION ON INGREDIENTS

Product contains the following ingredients:

COMPONENT	CAS No.	%	OSHA PEL	ACGIH
<i>Beauveria bassiana</i>	63428-82-0	10 - <25	N/E	N/E

N/E = Not Established

The specific chemical identities and percentages of composition have been withheld as trade secrets.

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4. FIRST-AID MEASURES

If in eyes: Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 minutes. Call a poison control center or doctor for treatment advice.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

If swallowed: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Product is not flammable under normal conditions of storage, handling and use. It is not recommended to use tap water as an extinguishing agent.

SPECIAL FIRE-FIGHTING PROCEDURES: Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus and full protective equipment.

UNUSUAL FIRE and EXPLOSION HAZARDS: As a result of combustion or thermal decomposition reactive subproducts are created (CO₂, CO, NO_x) that can become highly toxic and present a serious health risk.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: Take all additional action necessary to prevent and remedy the adverse effects of the spill. This product should be prevented from entering bodies of water.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: In case of spill, collect material immediately. Wipe residual material from surfaces with cloth. Do not wash residues into drains or other waterways.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Avoid contact with 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.

PESTICIDE STORAGE: Store in a cool, dry place. Avoid storage below freezing temperatures or above 85°F. Product stability decreases with time at elevated temperatures above 85°F. Tightly reclose the container of unused product. Do not contaminate unused product with water.

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8. EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS: None.

Avoid contact with skin or clothing. Keep container tightly closed.

PERSONAL PROTECTION:

RESPIRATORY: Mixer/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95.

OTHER: Applicators and other handlers must wear protective eyewear, protective gloves, long-sleeved shirt and long pants, and shoes plus socks.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Whitish powder

ODOR: Dusty

ODOR THRESHOLD: Not determined

pH: 6.3

MELTING POINT: Not determined

BOILING POINT: Not applicable

FLASH POINT: Not applicable

EVAPORATION RATE: Not determined

FLAMMABILITY/EXPLOSIVE LIMITS: Not determined

VAPOR PRESSURE at 50°C: Not applicable

VAPOR DENSITY: Not applicable

BULK DENSITY at 20°C: 0.88 g/kl

SOLUBILITY in water: Not applicable

PARTITION COEFFICIENT: Not determined

AUTO-IGNITION TEMPERATURE: Not applicable

DECOMPOSITION TEMPERATURE: Not determined

VISCOSITY at 20°C: Not applicable

10. STABILITY AND REACTIVITY

REACTIVITY: Not reactive under normal conditions of use.

STABILITY: Stable under normal recommended storage and handling conditions. (see section 7)

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITY: None known.

HAZARDOUS THERMAL DECOMPOSITION PRODUCTS: Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

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11. TOXICOLOGICAL INFORMATION**ACUTE TOXICITY:**

Acute Oral LD ₅₀ (Rat):	>5000 mg/kg (by wt)
Acute Dermal LD ₅₀ (Rabbit):	Active substance > 1.0x 10 ¹¹ CFU/animal (rabbit)
Acute Inhalation LC ₅₀ (Rat):	Active substance > 1.0x 10 ⁸ CFU/animal (rat)
Skin Irritation:	Not an irritant
Eye Irritation:	Not an irritant

CHRONIC TOXICITY:

Carcinogenicity:	Unnecessary
Reproductive toxicity:	Unnecessary
Teratogenic effects:	Unnecessary
Mutagenic effect:	Not a mutagen

12. ECOLOGICAL INFORMATION

This product is not classified as dangerous for environment

Avian toxicity:	Active ingredient: No mortality at 29.45 viable spores / bird (Japanese quail)
Effects on fish:	Active ingredient: NOEC < 7.5 x 10 ⁸ (<i>Pimephales promelas</i>)
Effects on Daphnia:	Active ingredient: EC ₅₀ >9.3x10 ⁸ CFU/L NOEC 4.7x10 ⁸ CFU/L

Mobility: Conidia of *Beauveria bassiana* strain BW149 (active ingredient) are not very mobile in soil and generally remain on the surface of soil. The movement of conidia vertically, through the soil profile, is positively correlated with high infiltration rates in soil.

Persistence and degradability: This product has low persistence and its components are easily bio-degraded

Bioaccumulative potential: This product contains biodegradable molecules and spores of a natural occurring soil microorganism. There is not bioaccumulative potential.

Results of PBT¹ assessment: This product does not contain any compound with bioaccumulative or toxic potential

Other adverse effects: None

13. DISPOSAL CONSIDERATIONS**PESTICIDE DISPOSAL**

To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

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CONTAINER DISPOSAL

(For plastic containers) Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

(For foil bags) Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment by shaking and tapping sides and bottom to loosen clinging particles. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

14. TRANSPORT INFORMATION

PROPER SHIPPING NAME:	Not regulated
Land: ADR / RID Class:	Not Regulated
US DOT:	Not Regulated
Canadian TDG:	Not Regulated
Water: IMDG Class:	Not Regulated
Air: IATA - DGR Class:	Not Regulated

15. REGULATORY INFORMATION

UNITED STATES (EPA Reg. No. 68539-22)

This pesticide product is 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 information, including direction for use.

CAUTION

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

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15. REGULATORY INFORMATION (continued)SARA Hazard Class: ☐ Acute ☐ Chronic ☐ Flammable ☐ Pressure ☐ Reactive ☒ NoneSARA 313 ☐ Yes ☒ No, Chemical
CERCLA: ☐ Yes ☒ No, Chemical
RCRA: ☐ Yes ☒ NoSARA 302 ☐ Yes ☒ No, Chemical
RQ: none

NFPA Hazard Rating:

Health: [2]
Fire: [0]
Reactivity: [0]
Special: [0]

NFPA Hazard Rating Scale:

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

HMIS Codes:

Health: [2]
Fire: [0]
Reactivity: [0]

HMIS Hazard Rating Scale:

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

GHS label elements: This product has been classified and labeled according to the Globally Harmonized System (GHS). It is subject to labeling according to the prevailing version of regulations on hazardous substances.

WHMIS: This SDS contains all the information required by the Controlled Products Regulations.

16. OTHER INFORMATION

DATE OF PREPARATION: February 24, 2020, revised product registration April 13, 2025

CONTACT: BioWorks, Inc.
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TELEPHONE: 800-877-9443**DISCLAIMER AND LIMITATION OF LIABILITY**

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