



**BioWorks®**  
How You Grow Matters™

**RootShield® Drench  
Biological Fungicide  
Wettable Powder**

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Date: May 26, 2009

**MATERIAL SAFETY DATA SHEET**

**1. CHEMICAL PRODUCT and COMPANY IDENTIFICATION**

GENERAL USE: Biological Fungicide

COMMON NAME: RootShield Drench Biological Fungicide Wettable Powder

MANUFACTURED BY:

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

EMERGENCY TELEPHONE NUMBER:

**BioWorks, Inc:** 800.877.9443

**CHEMTREC:** 800-424-9300

**2. COMPOSITION, INFORMATION ON INGREDIENTS**

Product contains the following ingredients:

COMPONENT	CAS No.	%	OSHA PEL	ACGIH
<i>Trichoderma harzianum</i> Rifai strain KRL-AG2	67892-31-3	1.15	N/E	N/E
Inert ingredients	confidential	98.85	N/E	N/E

N/E = Not Established

**3. HAZARDS IDENTIFICATION**

EMERGENCY OVERVIEW: Grey or green powder with earthy odor. Dust may cause eye, skin and respiratory tract irritation.

POTENTIAL HEALTH EFFECTS:

INHALATION: Dust may irritate the respiratory tract.

EYE CONTACT: Dust may cause irritation.

SKIN CONTACT: Dust may cause irritation.

INGESTION: Active ingredient has shown no mammalian toxicity.

CHRONIC: No known effects.

CARCINOGENICITY: The ingredients in this product are not listed by NTP, OSHA, or ACGIH as a carcinogen.

**4. EMERGENCY AND FIRST AID MEASURES**

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SKIN CONTACT: Remove contaminated clothing. Wash thoroughly with soap and water immediately. Get medical attention if irritation develops.

EYE CONTACT: In cases of contact, hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

INGESTION: If swallowed, do NOT induce vomiting. Call a physician.

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## **5. FIRE FIGHTING MEASURES**

FLASH POINT: Not applicable.

AUTOIGNITION TEMPERATURE: Not determined

EXTINGUISHING MEDIA: Not combustible.

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: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition will produce oxides of carbon, and silicon.

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## **6. ACCIDENTAL RELEASE MEASURES**

GENERAL: 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.

SPECIFIC: In case of spill, collect material immediately. Wipe residual material from surfaces with cloth. Do not wash residues into drains or other waterways.

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## **7. HANDLING and STORAGE**

Avoid contact with skin and eyes. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse.

Store in original container in a cool, dry place away from acids. Prevent exposure to moisture. Keep container tightly closed and out of reach of children. Avoid contamination with other pesticides or fertilizers. Do not contaminate water, food or feed.

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## **8. EXPOSURE CONTROLS, PERSONAL PROTECTION**

Avoid contact with skin or clothing. Use only outdoors. Keep container tightly closed. .

PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY: Use with adequate ventilation to prevent dust inhalation. When mixing/loading or applying the product and during all clean-up/repair activities wear a dust/mist filtering respirator(MSHA/NIOSH approval number prefix TC-21C) or a NIOSH approved respirator with any N-95, R-95, P-95 or HE filter for biological products.

EYES: Wear eye goggles.

PROTECTIVE GLOVES: Use protective gloves.

OTHER: Applicators and other handlers must wear: long-sleeved shirt, long pants, socks and shoes, Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

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## **9. PHYSICAL and CHEMICAL PROPERTIES**

APPEARANCE: grey or green powder

VAPOR PRESSURE: Not applicable

SPECIFIC GRAVITY: 0.61 g/cm<sup>3</sup>

SOLUBILITY in water: Insoluble

ODOR: earthy odor

MELTING POINT: Not determined

BOILING POINT: Not determined

VISCOSITY: Not determined

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**10. STABILITY and REACTIVITY**

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

HAZARDOUS POLYMERIZATION:  
Will not occur.

INCOMPATIBILITY: Strong acidic materials.

HAZARDOUS THERMAL DECOMPOSITION PRODUCTS: Thermal decomposition will produce oxides of carbon and silicon.

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**11. TOXICOLOGICAL INFORMATION**

Active ingredient is practically non-toxic, non-allergenic and non-pathogenic to mammals. Pre-existing medical conditions should not be aggravated by exposure.

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**12. ECOLOGICAL INFORMATION**

FISH TOXICITY: No data available.

DAPHNIA MAGNA TOXICITY: No data available.

ALGAE: No data available

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**13. DISPOSAL CONSIDERATIONS**

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Dispose of empty container in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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**14. TRANSPORT INFORMATION (not meant to be all inclusive)**

D.O.T.- Land, air and sea

PROPER SHIPPING NAME: Not regulated

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**15. REGULATORY INFORMATION (not meant to be all inclusive)**

UNITED STATES

FIFRA (Federal Insecticide, Fungicide and Rodenticide Act): Regulated,  
EPA Reg. No. 68539-4

SARA Hazard Class: ☐ Acute ☐ Chronic ☐ Flammable ☐ Pressure ☐ Reactive  
☒ None

SARA 313 ☐ Yes ☒ No, Chemical

SARA 302 ☐ Yes ☐ No, Chemical

CERCLA: ☐ Yes ☐ No, Chemical

RQ: none

RCRA: ☐ Yes ☐ No

NFPA Hazard Rating:

NFPA Hazard Rating Scale:

Health: [1]

0 = Minimal

3 = Serious

Fire: [1]

1 = Slight

4 = Severe

Reactivity: [0]

2 = Moderate

Special: [ ]

HMIS Codes:

HMIS Hazard Rating Scale:

Health: [1]

0 = Minimal

3 = Serious

Fire: [1]

1 = Slight

4 = Severe

Reactivity: [0]

2 = Moderate

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CANADA

WHMIS: This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the MSDS contains all the information required by the *Controlled Products Regulations*

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**16. OTHER INFORMATION**

MSDS SUMMARY: MSDS revised May 26, 2009

CONTACT: BioWorks, Inc.  
100 Rawson Rd. Ste 205  
Victor, NY 14564

TELEPHONE: 800.877.9443

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