

***Trichoderma virens* strain G-41 (176604) Fact Sheet**

Summary

Trichoderma virens, including strain G-41, is a naturally occurring fungus that is native to the U.S. and is widely distributed throughout the world, inhabiting forest, agricultural, and orchard soils, as well as plant litter. Given the fungicidal capabilities of *Trichoderma virens* strain G-41, BioWorks, Inc. proposed to register a manufacturing-use pesticide product, G-41 Technical, and two end-use pesticide products, BW240 WP Biological Fungicide and BW240 G Biological Fungicide, containing this fungus. BW240 WP Biological Fungicide and BW240 G Biological Fungicide will be used to control soilborne plant pathogens and plant root diseases that adversely affect agricultural, greenhouse, and nursery crops, as well as plants in residential settings (e.g., vegetables, fruit, and ornamentals). Use of *Trichoderma virens* strain G-41 as a fungicide and in accordance with label directions is not expected to cause any unreasonable adverse effects on human health or the environment.

I. Description of the Active Ingredient

Trichoderma virens strain G-41 was isolated from soil samples taken from *Aphanomyces*-suppressive fields in Livingston County, New York. Much like other *Trichoderma* species, *Trichoderma virens* strain G-41 inhibits or kills certain plant-pathogenic fungi (e.g., *Rhizoctonia* species and *Fusarium* species) through several mechanisms: (1) competition for food and space, (2) mycoparasitism, (3) antibiosis, and (4) induction of plant defense responses.

II. Use Sites, Target Pests, and Application Methods

Use Sites: Various agricultural, greenhouse, and nursery crops, as well as plants in residential settings (e.g., vegetables, fruit, and ornamentals)

Target Pests: Various soilborne fungal pests (e.g., *Rhizoctonia* and *Fusarium* species)

Application Methods: For specific details, see Appendix B of the associated Biopesticides Registration Action Document or the accepted pesticide product labels available through EPA's [Pesticide Product Label System](#).

III. Assessing Risks to Human Health

Given the results of required toxicity/pathogenicity testing and the absence of occurrences of hypersensitivity incidents during testing and production of *Trichoderma virens* strain G-41, no human health risks are expected when pesticides products containing *Trichoderma virens* strain G-41 are used according to their respective label directions. Despite the low toxicological profile of *Trichoderma virens* strain G-41, baseline personal protective equipment is required for handlers that may be exposed to the active ingredient for prolonged periods or numerous times. Handlers working with *Trichoderma virens*

strain G-41 in agricultural and/or commercial settings must wear a long-sleeved shirt, long pants, socks, shoes, protective eyewear, and a dust/mist filtering respirator meeting National Institute for Occupational Safety and Health standards of at least N-95, R-95, or P-95. EPA may require additional PPE on a product-specific basis.

IV. Assessing Risks to the Environment

EPA performed an environmental risk assessment, based on data and other information (e.g., scientific literature) provided by the applicant, and determined that adverse effects to nontarget organisms are not anticipated from the proposed pesticidal uses of *Trichoderma virens* strain G-41. Moreover, EPA made a “No Effect” determination for direct and indirect effects to listed species and their designated critical habitats resulting from these same proposed pesticidal uses.

V. Regulatory Information

On January 23, 2012, EPA registered the first pesticide products containing *Trichoderma virens* strain G-41 as an active ingredient (G-41 Technical, EPA Reg. No. 68539-8; BW240 WP Biological Fungicide, EPA Reg. No. 68539-9; BW240 G Biological Fungicide, EPA Reg. No. 68539-10). EPA also concluded that there is a reasonable certainty that no harm will result to the U.S. population, including infants and children, from aggregate exposure to residues of *Trichoderma virens* strain G-41 and accordingly established a tolerance exemption ([40 CFR § 180.1310](#)).

VI. Registrant Information

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VII. Additional Contact Information

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