Trichoderma asperellum strain T34 (119209) Fact Sheet

Issued: October 2011

Summary

Trichoderma asperellum strain T34 is a naturally occurring fungus used to protect ornamental crops from *Fusarium oxysporum*, a pathogenic, soil-born fungus. This active ingredient is not expected to cause disease or adverse health effects to humans and is not likely to harm the environment. The producer of *Trichoderma asperellum* strain T34, Biocontrol Technologies, S.L., of Barcelona, Spain, manufactures an end-use microbial pesticide product, T34 Biocontrol (EPA Registration Number 87301-1), containing T34 as the active ingredient. This product is intended for use in greenhouses to control *Fusarium oxysporum* on nonfood crops, specifically, carnations.

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I. Description of the Active Ingredient

Trichoderma asperellum strain T34 is a naturally occurring fungus that increases plant defenses against *Fusarium oxysporum*, a pathogenic, soil-born fungus of significant economic importance in the United States. When *Trichoderma asperellum* strain T34 is preventatively applied, it protects plants from this disease-causing organism by initially colonizing the roots and building a physical barrier against pathogens. This active ingredient induces the synthesis of defense proteins in the plant, which increases the plants' resistance to infection by *Fusarium oxysporum*. It also has the ability to parasitize and kill the plant pathogen.

II. Use Sites, Target Pests, And Application Methods

- **Use Sites:** Nonfood use on greenhouse crops (e.g., carnations).

- **Target pests:** *Fusarium oxysporum*, a pathogenic, soil-born fungus.

- **Application Methods:**

  Products containing this active ingredient are to be applied to greenhouse crops using ground equipment only. The first registered product,T34 Biocontrol, can be applied as a potting mix or soil drench, and its label allows some forms of chemigation (basin, furrow, border, and drip).

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 asperellu*m strain T34, no human health risks are expected when pesticides products containing *Trichoderma asperellum* strain T34 are used according to their respective label directions. Despite the low toxicological profile of *Trichoderma asperellum* strain T34, baseline personal protective equipment (PPE) is required for handlers that may be exposed to the active ingredient, due to their occupation, for prolonged periods or numerous times. Handlers working with *Trichoderma asperellum* strain T34 in greenhouses must wear a long-sleeved shirt, long pants, socks and, shoes. Additional PPE may be required based on a product-specific basis.

IV. Assessing Risks to the Environment

EPA performed an environmental risk assessment based on the data and data waiver rationale provided by the registrant and determined that uses of *Trichoderma asperellum* strain T34 do not pose significant risk to nontarget organisms when used according to label directions. The registration limits use to indoor environments within greenhouses, and the proposed maximum application use rates result in concentrations that are not above measured concentrations of *Trichoderma* spp. naturally occurring in soil. Therefore, exposure in aquatic and terrestrial environments is negligible, if it occurs at all. *Trichoderma* spp. are widely understood to present no potential adverse effects to nontarget insects including honey bees, which is supported by data submitted showing lack of effects of honey bees and bumble bees following exposure to several *Trichoderma* spp. Since EPA determined that no effects are anticipated for any nontarget species exposed to *Trichoderma asperellum* strain T34 as a result of labeled applications, effects to threatened and endangered species and their designated critical habitats also are not expected.

V. Regulatory Information

The first pesticide product containing *Trichoderma asperellum* strain T34 as an active ingredient was registered on October 20, 2011 (T34 Biocontrol, EPA Registration Number 87301-1). EPA has concluded that there is a reasonable certainty that no harm will result to the United States population, including infants and children, from aggregate exposure to residues of *Trichoderma asperellum* strain T34. No tolerance or exemption from the requirement of a tolerance is associated with or required for this pesticide

because T34 Biocontrol and future end-use products must be labeled only for nonfood uses.

VI. Producer Information

REGISTRANT:

Biocontrol Technologies, S.L.
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VII. Additional Contact Information

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