

# ***Paecilomyces lilacinus* strain 251 (028826) Fact sheet**

## **Summary**

*Paecilomyces lilacinus* is a naturally occurring fungus found in many kinds of soils throughout the world. As a pesticide active ingredient, *Paecilomyces lilacinus* strain 251 is applied to soil to control nematodes that attack plant roots. The fungus showed no toxicity or pathogenicity when tested in rodents and various invertebrates. *Paecilomyces lilacinus* strain 251 does not survive at human body temperature. Furthermore, exposure to the public will be minimal because the fungus is applied directly to soil. Therefore, no adverse effects are expected to humans or the environment when users follow label directions.

### **I. Description of the Active Ingredient**

*Paecilomyces lilacinus*, a common soil fungus, produces distinctive lilac-colored colonies. This strain was isolated from infected nematode eggs in the Philippines. Unlike many other strains of *Paecilomyces lilacinus*, this strain does not produce toxins that can harm other organisms. Optimal laboratory growth of *Paecilomyces lilacinus* strain 251 occurs at 21-27 degrees C, and the fungus does not grow or survive at human body temperature. It acts against plant root nematodes by infecting eggs, juveniles, and adult females.

### **II. Use Sites, Target Pests, and Application Methods**

- **Use sites:** For agricultural use on food and non-food crops, including vegetables, specific fruits, turf, ornamentals, and tobacco.
- **Target pests:** Plant root nematodes, including root knot nematodes (*Meloidogyne* spp.) and cyst nematodes (*Geterodera* spp. and *Globodera* spp.)
- **Application methods:** In general, the end product is diluted with water and the resultant suspension is added to soil pre-planting, 6 weeks after planting, and at intervals of 6 weeks to 4 months during subsequent plant growth.

### **III. Assessing Risks to Human Health**

No adverse human health effects are expected from use of *Paecilomyces lilacinus* strain 251 as a pesticide active ingredient. No toxicity or pathogenicity was seen in laboratory rodent studies. Human exposure will be minimal because this active ingredient is applied directly to agricultural soil. Worker exposures are minimized by required use of Personal Protective Equipment (PPE). The fungus grows only at temperatures lower than human body temperature, so no infection is expected.

### **IV. Assessing Risks to the Environment**

No harmful environmental effects are expected at field concentrations of *Paecilomyces lilacinus* strain 251 based on laboratory studies conducted on insects (including several hymenopterans), rainbow trout, beneficial nematodes, *Daphnia magna*, and single cell green algae. Also, *Paecilomyces lilacinus* strain 251 returns to background soil levels several weeks to months after application.

## **V. Regulatory Information**

On March 30, 2005, the first pesticide end product containing *P. lilacinus* strain 251 as an active ingredient was registered (licensed for sale and distribution). The product is the nematicide "MeloCon WG" (EPA Registration Number 72444-2).

## **VI. Registrant Information**

Prophyta Biologischer Pflanzenschutz GmbH (Germany)

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## **VII. Additional Contact Information**

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