

***Bacillus licheniformis* Strain SB3086 (006492)**

Fact Sheet

Summary

***Bacillus licheniformis* Strain SB3086** is a naturally occurring bacterium that is used on ornamental plants and ornamental turf to prevent and treat many fungal diseases. No harm to humans or the environment is expected when *B. licheniformis* Strain SB3086 is used according to label directions.

I. Description of the Ingredient

OPP Chemical Code: 006492

Bacillus licheniformis Strain SB3086 is a common soil microorganism that contributes to nutrient cycling and displays antifungal activity. Researchers suggest that the bacterium acts against fungi by producing an antibiotic agent, and possibly an anti-fungal enzyme.

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

- **Use Sites:** *Bacillus licheniformis* Strain SB3086 is approved for treatment of ornamental turf, lawns, golf courses, ornamental plants, conifers and tree seedlings in outdoor, greenhouse, and nursery sites.
- **Target Pests:** The active ingredient is effective against many fungal species, especially those causing leafspot and blight diseases.
- **Application Methods:** The single registered product, Novozymes Biofungicide Green-Relief™ 710-140, is diluted in water and sprayed on leaves or applied to soil.

III. Assessing Risks to Human Health

No harmful health effects to humans are expected from use of *Bacillus licheniformis* Strain SB3086 to treat ornamental plants and ornamental turf. Appropriate tests found no evidence that the bacterium is harmful to humans. *B. licheniformis* strain SB3086 was not toxic or pathogenic in rats. However, unidentified strains of *B. licheniformis* have been associated with reproductive failures and mastitis in cattle, sheep, and pigs. This microbe may also be

responsible for some cases of human food poisoning. Therefore, the product label must have a statement instructing the user not to use this product on plants intended for food or feed.

IV. Assessing Risks to the Environment

No adverse environmental effects are expected when products containing *Bacillus licheniformis* Strain SB3086 are used according to label instructions. Studies show that the level of *B. licheniformis* would increase no more than 1 to 2% above background level when applied at amounts recommended on the label. This small increase in background soil levels is not expected to have any adverse effects. A literature search found no reports indicating that *B. licheniformis* is harmful to insects, birds, plants, or marine species. Although the adverse effects reported in domestic cattle and pigs might also occur in wild ruminant and boar species, their exposure is expected to be minimal to non-existent because the product will be used only on ornamental plants and ornamental turf.

V. Regulatory Information

On February 4, 2003, the product "Novozymes Biofungicide Green-Releaf TM 710-140" (also known as Ecoguard Biofungicide) was registered (licensed for sale and distribution) by EPA. As of July 2005, it is the only registered product containing the active ingredient *Bacillus licheniformis* Strain SB3086.

VI. Registrant Information

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VII. Additional Contact Information

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