

Health Questions and Answers for the Insecticidal Product beetleGONE![®] tlc

Prepared by the Office of Environmental Health Hazard Assessment,
California Environmental Protection Agency



Q: *What is beetleGONE![®] tlc?*

A: beetleGONE![®] tlc is an organic insecticidal product containing toxins from *Bacillus thuringiensis galleriae* (Btg), a naturally-occurring bacterium found in soil and plants. beetleGONE![®] tlc is used by the California Department of Food and Agriculture (CDFA) as a biological insecticide to control invasive insects, such as the Japanese Beetle. CDFA applies beetleGONE![®] tlc as a liquid using a hydraulic or hand sprayer to turf and groundcovers and then waters the product into the soil.

Q: *How do the Btg toxins work?*

A: When an insect feeds on plants treated with beetleGONE![®] tlc, the Btg toxins become activated in the insect's stomach. The active toxins destroy the digestive tract, resulting in the insect's starvation and death. Humans, fish, birds, and most other insects (including honeybees) are not affected if they ingest Btg toxins because they have acidic stomachs that prevent the toxins from becoming active.

Q: *What are the health effects of Btg?*

A: Laboratory animals and humans who ingested high levels of Btg did not show adverse health effects. High levels of Btg formulations, when inhaled or applied to the skin, caused mild respiratory or skin irritation. However, irritation is not expected with CDFA treatments using beetleGONE![®] tlc because of the way the product is applied and the very low application level.

Q: *How do regulatory agencies classify Btg's health effects and risk?*

A: The US Environmental Protection Agency (US EPA) has evaluated Btg and determined that it is safe to use on all types of food crops. Btg is registered for use in California as a microbial, reduced risk insecticide on ornamental plants and food crops.

Q: *What is known about the inert ingredients in beetleGONE![®] tlc?*

A: The inert ingredients in beetleGONE![®] tlc have been approved by US EPA for use on crops and by the US Food and Drug Administration to be added to food. When used as an insecticide according to label instructions, beetleGONE![®] tlc is diluted with water, ensuring a very low level of exposure to inert ingredients.

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Q: *What precautions should people take while beetleGONE!® tlc is being applied to their yard?*

A: As a precaution during treatment, residents should stay indoors, close all windows and doors that open to the outside, and turn off ventilation systems that receive outside air. Because Btg does not evaporate, and CDFA's spray application results in large droplets, inhalation exposure to Btg is expected to be minimal. Follow all instructions provided by CDFA.

Q: *What precautions should people take after beetleGONE!® tlc is applied to their yard?*

A: Residents should not perform yard work or allow children to play near the treated areas immediately after treatment. Wait until the material has dried before entering the treated area. For those wishing to take extra precaution, wait at least 24 hours after treatment before entering the treated area. If it is necessary to enter before the spray material has dried, wear gloves and clothes to protect the skin from direct contact with the material. Wash skin and clothing if contact occurs. Follow all instructions provided by CDFA.

Q: *Can residents eat fruits and vegetables from plants treated with beetleGONE!® tlc?*

A: CDFA is not applying beetleGONE!® tlc to plants with fruits and vegetables for consumption, and is applying beetleGONE!® tlc only to turf and groundcover. As a precaution, wash your fruits and vegetables before eating them.

Q: *Are there other products on the market that contain Btg?*

A: There are several home gardening products containing *Bacillus thuringiensis* as an active ingredient that may be purchased at your local gardening store. *Btg* is a subspecies of *Bacillus thuringiensis*.

Q: *What should someone do if they feel sick after the application of beetleGONE!® tlc?*

A: Call the California Poison Control System hotline at (800) 222-1222 or consult with your physician.

For further information, please contact:

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