

Health Questions and Answers for DiPel® Pro DF

For use against Spongy Moth

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



Q: What is DiPel Pro DF®?

A: DiPel Pro DF® is an organic insecticidal product containing *Bacillus thuringiensis kurstaki* (Btk), a naturally-occurring spore-forming bacterium found in soil and plants. DiPel Pro DF® is used by the California Department of Food and Agriculture (CDFA) as a biological insecticide to control invasive insects, such as moths. CDFA applies DiPel Pro DF® using a hydraulic or hand sprayer to the leaves of trees, shrubs, and other host plants.

Q: How do the Btk toxins work?

A: When a caterpillar ingests leaves treated with DiPel Pro DF®, the Btk toxins become activated in the caterpillar's non-acidic stomach. The active toxins destroy the caterpillar's digestive tract, resulting in the insect's starvation and death. Humans, common household pets, other mammals, fish, birds, adult moths, and most other insects (including honeybees) are not affected if they ingest Btk toxins because they have acidic stomachs that prevent the toxins from becoming active.

Q: What are the health effects of Btk and toxins?

A: Laboratory animals and humans who ingested high levels of Btk and its toxins did not show adverse health effects. High levels of Btk formulations, when inhaled or applied to the skin, caused mild skin or respiratory irritation. However, irritation is not expected with CDFA treatments using DiPel Pro DF® because the level of Btk applied is low.

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

A: The US Environmental Protection Agency has evaluated Btk and determined that it is safe to use on all types of food crops and can be applied up to the day of harvest. Btk is considered an organic insecticide.

Q: What is known about the inert ingredients in DiPel Pro DF®?

A: The inert ingredients in DiPel Pro DF® have been approved by the US Environmental Protection Agency for use on crops. Some of the inert ingredients may cause skin or eye irritation at high concentrations. When used according to label instructions, DiPel Pro DF® is diluted with water, ensuring a very low level of exposure to any one inert ingredient.

Health Questions and Answers for the Btk Insecticidal Product DiPel Pro DF[®]

Q: *What precautions should people take when DiPel Pro DF[®] is applied to plants in their yard?*

A: While Btk is considered a low risk pesticide, as a precaution OEHHA recommends that residents stay indoors and close all windows and doors that open to the outside during the pesticide application. Follow all instructions provided by CDFA.

Q: *What precautions should people take after DiPel Pro DF[®] is applied to plants in 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, about 4 hours depending on weather conditions. For those wishing to take extra precaution, wait 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 I eat fruits and vegetables from plants treated with DiPel Pro DF[®]?*

A: Vegetables and fruits from treated plants can be picked after spraying. However, for those wishing to take extra precaution, OEHHA recommends waiting for at least 24 hours after treatment before picking. Btk is destroyed by sunlight and microbial activity within a few days. Be sure to wash the fruits and vegetables thoroughly.

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

A: There are several home gardening products containing Btk that can be purchased at local home and garden or general retail stores.

Q: *What should I do if I feel sick after the application of DiPel Pro DF[®]?*

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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