

Health Questions and Answers for Tempo[®] Insecticidal Products

Prepared by the Office of Environmental Health Hazard Assessment, CalEPA



Q: *What is Tempo[®]?*

A: Tempo[®] is a line of pesticide products containing the active ingredient beta-cyfluthrin, which is in the pyrethroid family of insecticidal chemicals. Tempo[®] is being used by the California Department of Food and Agriculture (CDFA) on the foliage of targeted plants (citrus trees and ornamental plants) to control invasive pests.

Q: *How does beta-cyfluthrin work?*

A: When an insect ingests or comes into contact with beta-cyfluthrin, the chemical enters the insect's body and binds to nerve cells. This causes over-stimulation of the nervous system, which leads to death of the insect. Beta-cyfluthrin binds more tightly to insect nerve cells than to mammalian nerve cells, resulting in greater toxicity to insects than to mammals, including humans. Mammals detoxify and excrete beta-cyfluthrin more rapidly than insects, which also results in lower toxicity to mammals.

Q: *How can people be exposed to beta-cyfluthrin from CDFA Tempo[®] applications?*

A: People can be exposed when their skin contacts leaves or branches of treated plants. The greatest exposure is likely to occur immediately after application when the applied Tempo[®] has not yet dried.

Q: *What are beta-cyfluthrin's human health effects?*

A: Beta-cyfluthrin did not cause skin-sensitization (allergic dermatitis) in laboratory animals but caused a specific type of skin rash in sensitive humans. Beta-cyfluthrin caused other effects in laboratory animals (eye irritation, nervous system, reproductive system, and developmental effects). However, these effects occurred at significantly higher concentrations than what humans could be exposed to following CDFA treatments. Beta-cyfluthrin has not been found to cause cancer.

Q: *What uses does Tempo[®] have in addition to CDFA treatments?*

A: Tempo[®] can be used inside and outside buildings, on recreational turf, and in food establishments. Some Tempo[®] products can only be used by certified pesticide applicators while others are available to the general public for uses such as in gardens and homes.

Q: *What is known about the inert ingredients in Tempo[®]?*

A: The toxic potency of each of the inert ingredients is low. Though some inert ingredients have caused skin or eye irritation when applied at high concentrations to laboratory animals, human exposure from contact with treated plants to an inert ingredient is expected to be very low because the applied Tempo[®] is highly diluted.

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Q: *What happens to beta-cyfluthrin in the environment?*

A: When applied to plant foliage, beta-cyfluthrin adheres to the plant surface; it does not enter the plant or readily evaporate into the air. Beta-cyfluthrin degrades in sunlight within hours, but can last up to a few weeks if there is no sunlight or the plants are in the shade. Beta-cyfluthrin binds strongly to soil particles, where it degrades. It does not leach into groundwater.

Q: *What precautions should I take during Tempo[®] applications in my yard?*

A: To prevent contact with Tempo[®] while it is being applied:

- Individuals and pets should stay out of the treated area (yard).
- If indoors, close windows and doors and turn off ventilation systems that receive outside air from the treated area.

Q: *What precautions should I take after Tempo[®] applications in my yard?*

A: To prevent skin contact with surfaces which may have beta-cyfluthrin residues:

- Wait until the applied material has dried before entering the yard, typically 4 hours. As an extra precaution, wait one day after the application to enter the yard.
- During the waiting time, do not do yard work or allow children to play in or near the treated area.
- For individuals with sensitive skin, wear gloves, long pants, and a long-sleeve shirt while in the treated area for up to one week after treatment.
- Wash skin and clothing if contact occurs.

Q: *Can I eat fruit from plants treated with Tempo[®]?*

A: Yes. You should wait 24 hours after the Tempo[®] application before harvesting the fruit and thoroughly wash it before eating. Wash your hands after handling the fruit.

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

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

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