

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. Cyfluthrins, including beta-cyfluthrin, are derived from naturally occurring chemicals called pyrethrins that are found in chrysanthemum flowers. Tempo[®] is being used by the California Department of Food and Agriculture (CDFA) to control invasive pests on foliage of targeted plants (citrus trees and ornamental plants). Insects are exposed to beta-cyfluthrin through contact and ingestion.

Q: *How does the active ingredient, beta-cyfluthrin, work?*

A: When insects ingest or come into contact with beta-cyfluthrin, it binds to their nerve cells. This causes over-stimulation of the nervous system and impairment of essential activities, such as feeding and motion, leading to death of the insect. Beta-cyfluthrin does not bind as strongly to mammalian nerve cells, making it much less toxic to mammals. Mammals also detoxify and excrete beta-cyfluthrin more rapidly than insects.

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

A: Animal testing shows beta-cyfluthrin caused slight eye irritation, effects in the nervous system, and reproductive and developmental effects. However, these effects are not expected from the low levels of beta-cyfluthrin used when Tempo[®] is used according to instructions on the label. Beta-cyfluthrin has not been shown to cause cancer in laboratory animals. While beta-cyfluthrin does not cause skin-sensitization reactions (allergic contact dermatitis) in laboratory animals, it has been shown to cause skin rash in sensitive humans.

Q: *How do regulatory agencies classify beta-cyfluthrin as a pesticide?*

A: Some cyfluthrin products are classified by the U.S. Environmental Protection Agency as a "General Use Pesticide." This means there are products containing beta-cyfluthrin available to the general public. Pesticide products containing beta-cyfluthrin are registered for use on agricultural sites, residential indoor and outdoor areas, pets and pet houses, and recreational and golf areas. However, some cyfluthrin products for use in agricultural settings or golf courses are classified as "Restricted Use Pesticides" because cyfluthrin can be toxic to fish and aquatic organisms.

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

A: In animal studies, some of the inert ingredients in Tempo[®] caused slight skin or eye irritation when applied at concentrations significantly higher than what humans would be exposed to from Tempo[®] applications. When used according to label instructions, Tempo[®] is highly diluted with water before application, resulting in a very low level of exposure to any one inert ingredient.

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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 get absorbed into the plant. It degrades with time, especially in the presence of sunlight, but can last up to a few weeks. Beta-cyfluthrin has a very low tendency to evaporate into the air. Beta-cyfluthrin binds strongly to soil and degrades in the soil. It is not susceptible to leaching into the ground water.

Q: *What precautions should people take when Tempo[®] is applied in their yard?*

A: As a precaution, individuals should stay indoors during treatment, close all windows and doors that open to the outside, and turn off ventilation systems that receive outside air. Inhalation exposure is expected to be minimal because beta-cyfluthrin has a very low tendency to evaporate. Follow all instructions provided by CDFA.

Q: *What precautions should people take after Tempo[®] is applied 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 into the treated area. For those wishing to take extra caution, wait at least 24 hours after treatment before entering the treated area. If it is necessary to enter prior to the material drying, wear gloves and clothes to protect the skin from direct contact with residues, and wash skin and clothing if contact occurs. Follow all instructions provided by CDFA.

Since cyfluthrin may cause a skin rash in sensitive individuals, residents should consider wearing long pants, long-sleeve shirts and, as appropriate, gloves when working or playing in treated areas for several weeks after treatment. Wash skin and clothing if contact occurs.

Q: *Can I eat fruits and vegetables from plants exposed to Tempo[®]?*

A: Residents should wait 24 hours after Tempo[®] application before harvesting in order to avoid getting residues on their skin from the treated plants. The harvested produce should be thoroughly washed. Wash your hands after handling the produce.

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

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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