

Technical Bulletin #20:

## Agrochemical General Information Sheet - Carbaryl

### **CARBARYL: Insecticides/Acaricides**

Formulation types: Dustable powders, wettable powders, liquid concentrates, granules, or baits.  
Chemical family: Carbamate.

### **What is carbaryl?**

Carbaryl is a broad-spectrum insecticide that controls over 100 species of insects including beetles, caterpillars (armyworms) and other chewing and sucking insects on more than 120 different crops including fruit trees, rice, corn, soybean, nut, and vegetable crops. It also controls Ectoparasites of poultry, livestock, pets, as well as earthworms in grasses (turf).

### **How it works? (Mode of Action)**

Carbaryl kills insects by contact and stomach poisoning. It attacks insects by disrupting the normal function of their nervous system, causing paralysis and death in 24-48 hours; residual activity varies between 5-10 days depending on insect, dosage, and crops.

### **Resistance:**

The resistant individuals can eventually dominate the insect population if this insecticide is used repeatedly. To delay insecticide resistance, avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate or tank mix with products from different insecticide group codes and integrate other control methods (chemical, cultural (IPM), biological) into the control program.

<b>Human Hazards:</b>	<b>Environmental Fate:</b>
Moderate acute toxicity	Bird (quail): Nontoxic
Non-irritation to eyes	Fish (trout): No bioaccumulation
Non-irritation to skin	Mammal (rabbit) : Slightly toxic
	Mammal (female rat): Very toxic
	Bee (honey): Highly toxic
	Ground water: No threat
	Low persistence in soil

### **First aid measures:**

**Inhalation:** Move person to a place with fresh air. If person is not breathing, seek immediate medical attention.

**Skin Contact:** In case of contact, immediately wash with plenty of soap and water for at least 5 minutes. Seek medical attention.

**Eye Contact:** Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention.



**Ingestion:** If victim is conscious and alert, give 2-3 glasses of water to drink and induce vomiting by touching back of throat with a finger. Do not induce vomiting or give anything by mouth to an unconscious person. Seek immediate medical attention.

**Mitigation Measures:**

- Wear personal protective clothing, e.g. rubber gloves, boots, long pants, long sleeve shirts, goggles, and mask.
- Wash with soap and water after use.
- Do not eat, drink, or smoke while preparing or applying pesticides.
- Avoid allowing children, pets, or sensitive people in treatment areas to prevent accidental exposures during pesticide applications.
- Triple rinse empty pesticide containers, and use this rinse water as dilution water for the pesticide concentrate in the sprayer for applying on crops.
- Chemical rotation.
- Avoid using at flowering and do not use when bees are working
- Do not use near open water sources.
- Correct implementation of IPM practices.

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