

# Ammonium Bicarbonate (073401) Fact sheet

**OPP Chemical Code:** 073401; (CAS # 1066-33-7)

## Summary

Ammonium bicarbonate, a natural chemical, has a faint ammonia smell because it slowly decomposes to ammonia, carbon dioxide, and water. As a pesticide active ingredient, it acts as a feeding attractant for insects. In its first approved end use products, ammonium bicarbonate is combined with two other active ingredients to control olive flies in olive orchards. When used according to label directions on products, this active ingredient is not expected to harm people or the environment.

## I. Description of the Active Ingredient

Ammonium bicarbonate is a clear white crystalline solid with a faint ammonia smell. It slowly degrades in the environment into ammonia, carbon dioxide, and water. Because ammonia is naturally released during the decomposition of proteins and related substances, some insects, including the olive fly, use the smell of ammonia to guide them to food and to stimulate eating.

Mechanism of Action. The first pesticide end products containing ammonium bicarbonate as an active ingredient are traps that enclose a matrix containing three active ingredients: olive fly mating pheromone, which attracts male olive flies from a distance; ammonium bicarbonate as a source of ammonia, which attracts the flies and stimulates them to eat; and lambda cyhalothrin, which kills insects that ingest it. These traps are dispersed throughout the olive orchards.

## II. Use Sites, Target Pests, and Application Methods

- **Use sites:** Olive orchards, ornamental and commercial
- **Target pest:** Olive fly
- **Application methods:** See "Mechanism of Action" in I (above)

## III. Assessing Risks to Human Health

No risks to humans are expected from approved uses of ammonium bicarbonate as a pesticide active ingredient. The substance is approved as a food additive by the Food and Drug Administration (FDA), and as an inert pesticide ingredient by EPA. No toxic endpoints have been identified. Use of ammonium bicarbonate as a pesticide active ingredient will lead to negligible increases in human exposure to ammonium bicarbonate and ammonia based on current uses.

#### **IV. Assessing Risks to the Environment**

Risks to non-target organisms are not expected, given that no toxicological endpoints have been identified and exposure should be minimal except to olive flies. Ammonium bicarbonate has been used as a pesticide inert ingredient for many years with no adverse effects reported.

#### **V. Regulatory Information**

June 2004: Registration of two end products containing ammonium bicarbonate.

"Olive Fly Attract and Kill (A&K) Target Device for Commercial Olives" (OPP Registration # 70051-76);

"Olive Fly Attract and Kill (A&K) Target Device for Ornamental Olives" (70051-96)

#### **VI. Registrant Information**

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#### **VII. Additional Contact Information**

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