California Red Scale Pheromone (017703, 017704) Fact sheet

Active Ingredient: (3S, 6R)-3-Methyl-6-isopropenyl-9-decen-1-yl acetate

OPP Chemical Code: 017703 (CAS # 67601-06-3)

Active Ingredient: (3S, 6S)-3-Methyl-6-isopropenyl-9-decen-1-yl acetate

OPP Chemical Code: 017704 (CAS # 67601-10-9)

Common Name of the Combined Active Ingredients: California Red Scale Pheromone

Summary

These two new active ingredients are pheromone chemicals that California red scale females release in tiny amounts to attract males for mating. California red scale is an insect pest on citrus in California and elsewhere. As part of a pesticide end-use product, small amounts of the chemicals are slowly released from dispensers hung in the upper limbs of citrus trees, confusing the California red scale males so they are less able to find the females for mating. Properties of insect pheromones are well known, and no risks are expected to humans, wildlife, or the environment from proper use of these two active ingredients.

I. Description of the Active Ingredients

Pheromones are volatile chemicals produced by a given species to communicate with other individuals of the same species in order to change their behavior. The end-use product for California Red Scale Pheromone contains (by weight) 0.041% of (3S, 6R)-3-methyl-6-isopropenyl-9-decen-1-yl acetate and 0.025% of (3S, 6S)-3-methyl-6-isopropenyl-9-decen-1-yl acetate, combined with other, proprietary, ingredients. When slowly released from the end-use product dispensers hung in citrus trees, the two active ingredients distract male California red scale insects, limiting their ability to locate the immobile females for mating. This type of pheromone use against a target pest is known as mating disruption.

II. Use Sites, Target Pests, and Application Methods

- **Use Site:** Citrus orchards

- **Target pest:** California red scale (Aonidiella aurantii)

- **End-Use Product Application Method:** Release of the active ingredient combination gradually and in tiny amounts from dispensers hung in the upper citrus tree canopy

III. Assessing Risks to Human Health

Whether a substance poses a risk to humans or other organisms depends on two factors: how toxic the substance is, and how much of it an organism is exposed to. Therefore, the EPA considers toxicity data and exposure data in deciding whether to approve a pesticide for use.

Based on the known properties of insect pheromones and the results of toxicity tests conducted on California Red Scale Pheromone, no risks to human health are expected from exposure to these active ingredients.

IV. Assessing Risks to the Environment

Based on the known properties of insect pheromones, their proper use is not expected to result in adverse effects to non-target organisms. Specifically, adverse effects from California Red Scale Pheromone on non-target organisms (e.g., mammals, birds, aquatic organisms, beneficial insects) are not expected because:

1. The active ingredient combination showed low toxicity when tested on mammals
2. The application method (slow release in small amounts from dispensers located in treetops) results in low exposure
3. The active ingredient combination acts only on male California red scale insects

V. Regulatory Information

On September 15, 2004, one manufacturing-use product containing these two new active ingredients was registered (licensed for sale and distribution). It is California Red Scale Technical Pheromone (EPA Registration Number 75108-2). On September 15, 2004, one end-use product containing these two new active ingredients was registered. It is Red Scale DownT (EPA Registration Number 75108-1).

VI. Registrant Information

HBB Partnership
5151 N. Palm Ave.
Ste. 820
Fresno, CA 93704-2221
info@redscaledown.com

VII. Additional Contact Information

Ombudsman, Biopesticides and Pollution Prevention Division (7511P)
Office of Pesticide Programs
Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460