Kaolin (100104) Fact Sheet

Summary

Growers use kaolin to help control damage to fruits and vegetables from insects, mites, fungi, bacteria, and to protect against sunburn and heat stress. This naturally occurring clay has been used for many years in foods, cosmetics, and other materials. Based on widespread usage and extensive toxicity studies, kaolin is considered safe for humans and the environment.

I. Description of the Active Ingredient

Kaolin is a naturally occurring clay found in huge deposits around the world. Kaolin is generally inert, and does not react with other materials. It is insoluble in water. When used as a pesticide, kaolin is sprayed as a powdered suspension on crops, where it forms a barrier film that repels and prevents target pests from penetrating leaves or other parts of the plant. To be effective, the suspension must coat all parts of the plants

II. Use Sites, Target Pests, and Application Methods

- **Use Sites:** Kaolin is approved for use on a wide range of fruit and vegetable crops, including beans, beets, potatoes, eggplant, citrus fruits, apples, apricots, and berries.
- **Target pests:** Insects, mites, fungi, and bacteria. /li>
- **Application Methods:** Kaolin is sprayed as a suspension< every 7 to 14 days or as needed.

III. Assessing Risks to Human Health

Exposure to kaolin is not expected to pose any health risks to people, including children and other sensitive populations. Kaolin has been extensively tested, and no evidence of toxicity to humans was detected. Human exposure occurs primarily through numerous non-pesticidal uses of kaolin. For example, the Food and Drug Administration (FDA) has approved kaolin as a packaging ingredient for dry foods, and as an anti-caking agent in foods. Toiletries such as toothpaste and antiperspirants contain kaolin, as do various cosmetics. In addition to being an active pesticide ingredient itself, kaolin is also an inert ingredient in other pesticide products. FDA has granted kaolin GRAS status (Generally Recognized as Safe) when used in human food.

IV. Assessing Risks to the Environment

EPA finds that kaolin is not harmful to non-target organisms or to the environment. For example, studies with spiders and honeybees indicate that kaolin appears to have no

adverse effects on beneficial insects/spiders. Aquatic organisms are not likely to be affected because kaolin does not dissolve in water.

V. Regulatory Information

Kaolin was registered (licensed for use) in 1998. At the end of May, 1999, there were five registered products with kaolin as the active ingredient

VI. Producer Information

Engelhard Corporation
101 Wood Avenue
Iselin, NJ 08830

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