

Azadirachtin (121701) Clarified Hydrophobic Extract of Neem Oil (025007) Fact Sheet

Summary

These two active ingredients are derived from the oil found in neem tree seeds. Humans have used this naturally-occurring oil for millennia for medicinal, cosmetic, and pesticidal purposes. When used in pesticide products, both azadirachtin and clarified hydrophobic extract of neem oil can be applied to many food and non-food crops indoors and outdoors to control certain insects and related pests. Adverse effects are not expected to humans, wildlife, or the environment when products containing these active ingredients are used according to label directions. Labels direct users not to contaminate water and not to apply when honeybees are actively visiting flowers in the area.

I. Description of the Active Ingredient

Active Ingredient Name: Azadirachtin OPP Chemical Code: 121701 (CAS # 11141-17-6)

Active Ingredient Name: Clarified Hydrophobic Extract of Neem Oil OPP Chemical Code: 25007 (CAS # 8002-65-1)

Azadirachtin and Clarified Hydrophobic Extract of Neem Oil are derived from the natural oil found in seeds of the neem tree, *Azadirachta indica* A.Juss, which is native to arid regions of India. The ability of the oil to repel pests has been known for thousands of years; the oil also has been used on skin and medicinally. When the natural neem oil is removed from the seeds and treated with alcohol, virtually all of the azadirachtin and related substances separate from the oil itself. The remaining oil - without the azadirachtin - is called Clarified Hydrophobic Extract of Neem Oil. Azadirachtin acts in the following ways: It deters certain insects, such as locusts, from feeding and it interferes with the normal life cycle of insects, including feeding, molting, mating, and egg laying.

II. Use Sites, Target Pests, and Application Methods

- **Use Sites:** Food and non-food plants; ornamentals; commercial and residential indoor and outdoor sites.
- **Target pests:** Both active ingredients: Many kinds of insects, including whiteflies and moth larvae, as well as mites, aphids, and related organisms.

- **Clarified hydrophobic extract of neem oil:** Unlike azadirachtin, this active ingredient is also active against fungal diseases such as mildews and rusts.
- **Application Methods:** Products normally are sprayed on plants

III. Assessing Risks to Human Health

Based on results of toxicity tests, risks to human health are not expected from use of these active ingredients.

IV. Assessing Risks to the Environment

When used as directed on product labels, neither clarified hydrophobic extract of neem oil nor azadirachtin are expected to harm non-target organisms. The substances are found in the environment, where they degrade naturally. However, product labels direct users not to apply the products directly to water, not to contaminate water during cleaning or disposal activities, and not to apply when honeybees are actively foraging.

V. Registrant Information

Clarified hydrophobic extract of neem oil:

CERTIS, USA, LLC
Att: Christine A. Dively
9145 Guilford Road
Columbia, MD 21046

Azadirachtin:

There are several registrants.

VI. 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