

Class Assignment – 05/17/11
100 points (8.3 pts. Each)
Pesticides and Food
Due Next Week

Instructions: Search your home *or* go to the nearest store and find a labeled pesticide product. Using the product's label and the Internet, answer the following questions:

1. Why did you choose this pesticide?
Answer: KILLS FLEAS, ants, and ticks . . . among other insects.
2. Where did you find it? For example, home or in a local store.
Answer: Garage, Lawn & Garden section of hardware stores.
3. Is the pesticides's product label clear and easy to understand?
Answer: It's a little overwhelming as it contains a 5 page booklet of information, but only a single hazard label on the product itself.
4. Report the trade mark here:
Answer: Spectracide® Triazicide® Insect Killer
5. Where and how is this product used?
Answer: Outdoors on lawns, flowers, trees, and shrubs. Including vegetable gardens (although not sure if I would want to do that, see warnings below.)
6. Report the manufacturer here:
Answer: Spectracide®
7. Identify the product's EPA registration number here:
Answer: EPA Reg No. 9688-195-8845 EPA Est. Nos.39754-WI-1(R), 79533-WI-1(BT), 39609-MO-1(BM), 58996-MO-1(AE)

What is the purpose of the registration number? Hint: <http://edis.ifas.ufl.edu/PI145>

Answer: The EPA registration number indicates which company holds the registration for the pesticide product, and in which sequence the product was submitted to the EPA by the company.

8. List the active ingredients below and for each describe how they threaten the environment, wildlife, and humans:
 - a. *Lambda-Cyhalothrin*
Human Health Effects

Lambda cyhalothrin can have corrosive effects on both the skin and eyes. Workers handling it reported facial tingling and burning, which lasted six hours to two days. Ingested lambda cyhalothrin is moderately toxic, although mammals are found to metabolize and excrete lambda cyhalothrin rapidly. The EPA identifies lambda cyhalothrin as a group D carcinogen, an undetermined human carcinogen (NPTN).

Exposure to lambda cyhalothrin may occur through inhalation, dermal absorption, or ingestion. Inhalation may cause burning sensations, convulsions, coughing, labored breathing, shortness of breath, and sore throat. Contact with the skin and eyes may cause redness and pain. Ingestion can cause abdominal pain and coughing (PANNA). Extreme levels of exposure can also cause seizures and coma (NPTN). The effects of respiratory diseases and skin disorders may intensify with exposure to lambda cyhalothrin (NLM).

Environmental Health Effects

Like other pyrethroids, lambda cyhalothrin disrupts the nervous system in insects, causing paralysis and death (NPTN). It is highly toxic to bees, for which the oral LD50 is 38 ng/bee, and the contact LD50 is 909 ng/bee (EXTOXNET).

Lambda cyhalothrin has a very low toxicity in birds. The oral LD50 in mallard duck is greater than 3,950 mg/kg (EXTOXNET).

Lambda cyhalothrin is very toxic to fish. Some studies have indicated that the chemical may accumulate in these organisms (NPTN).

In mammals, lambda cyhalothrin is absorbed and excreted relatively rapidly. Residue may accumulate in fat, in which the half-life is 23 days for rats and dogs. In a study with beagle dogs, 82-93% of orally and intravenously administered cyhalothrin was excreted after seven days (NLM). When ingested, the chemical is moderately toxic to mammals. In rats, the oral LD50 was 79 mg/kg in males and 56 mg/kg in females (NPTN).

Because of its high affinity for soil and low water solubility, lambda cyhalothrin is unlikely to contaminate water sources (EXTOXNET).

b. Other Ingredients – Who knows what this does . . .

9. List the inactive ingredients below and for each describe how they threaten the environment, wildlife, and humans:
 - a. *None listed*

10. Did you find any health and environmental warnings listed on the container? If so, what were they?

Answer: See below . . .

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

FIRST AID:

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for treatment advice.

Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment.

ENVIRONMENTAL HAZARDS:

This product is extremely toxic to fish and other aquatic organisms. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area.

11. Considering all the information you have obtained would you use or continue using this product? Why or why not?

Answer: Yes to keep the fleas down in the backyard. But I think I will keep the kids away from the back for like a week after applying as well as the dog.

12. Do you think this product adversely affects our food supply? Either way, provide an reasonable defense.

Answer: There is nothing to indicate that in all of the labels, but with it being so harmful to people . . . I am baffled why it is used at all on food supply. I would say yes it does as it doesn't dilute with water and therefore doesn't necessary wash off. So it would have to still be on the food by the time it reaches your plate.