UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 19 1994

MEMORANDUM

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

SUBJECT: Sumilarv (Chem. No. 129032)
New Chemical -- Indoor Use

TO: Robert Brennis, Product Manager
PM Team #10/Registration Division

FROM: Anthony Maciorowski, Chief
Ecological Effects Branch
Environmental Fate and Effects Division

12/18/94

EEB previously reviewed the proposed indoor of Sumilarv (4/22/93). For indoor use, the only remaining data issue concerned the adequacy of a submitted rainbow trout LC50 study, where the LC50 was reported to be above the level of solubility.

The registrant has indicated (MRID 431640-01) that a "definitive solubility study...(MRID No. 41321703) firmly sets the solubility at 0.37 mg/L, very similar to the highest concentrations tested in the acute technical fish studies...". If this solubility is considered an appropriate value by EPA chemistry review, no further testing would be needed to support indoor use. For any outdoor use, however, fish LC50 testing of specific formulation(s) may be needed, as well as other data (e.g., see 1/13/94 EEB review of proposed EUP for mosquito control).

Manufacturing-use products should have the statement "This pesticide is toxic to fish and aquatic invertebrates" followed by the current effluent discharge statement (PR Notice 93-10). Indoor end-use products should have the same toxicity statement, followed by a statement such as "For indoor use only. Do not dispose of product or prepared spray down drains or toilets. Do not use or wash product or prepared spray outdoors" to avoid these potential sources of aquatic exposure. The submitted labeling has a disposal statement ("Do not reuse empty container. Wrap container in several layers of newspaper and discard in trash.") that seems to refers to the original container. Labeling should also indicate what the user should do with any leftover prepared spray (e.g., check for local hazardous materials collections).

If you have any questions, please contact Harry Craven (305-5320) or James Felkel (305-5828) of my staff.

December 13, 1994

NOTE TO: Jim Felkel, EFED/EEB

SUBJECT: Household Label Disposal Statement

FROM: Nancy Fitz and Dennis Howard

The purpose of this note is to provide you with some language describing the problems with disposing of the household use product that we discussed yesterday. Feel free to use as much or as little of this language in your response to RD as you would like.

As we understand the situation, the product is a growth regulator for indoor flea and insect control. While it is classified as indoor use, the label includes a long list of appropriate sites (e.g., garages, automobiles, boats, etc.) that might be somewhat confusing to the household user. Although data are still pending, the product appears to be toxic to aquatic life at extremely low concentrations. At this point, we don't have much information about the fate/persistence of this product. The product would be used by diluting 8.5 ml of concentrate in 1 gallon of water and spraying the mixture on infested areas (carpets, floors, cracks, crevices, etc.) The proposed disposal statement is the "generic" language specified in PR Notice 84-1 (or a similar variation): "Do not reuse empty container. Wrap container in newspaper and put in trash." You suggested several other label statements due to aquatic toxicity concerns and asked for our input.

One concern addressed the possibility of household users applying or using the product outside. It seems reasonable to place a statement under the "environmental hazards" or "use" sections. Examples of such statements include "This product is toxic to aquatic life. Use only indoors." or "Do not use product outdoors." It may be better to use a restrictive statement along the lines of "Use only indoors" or "For indoor use only" rather than a prohibitive "Do not use..." statement. The latter is problematic since there are other things the user should not do, but we can't list them all on the label.

The second concern raised by this product is disposal of the product itself and of excess spray solution. The label directs the user to wrap the container in newspaper and discard the product in the trash, i.e., the normal municipal solid waste stream. This may be the best disposal method available to typical household pesticide users (although local household hazardous waste collection programs are also feasible alternatives, where available.)

The true disposal dilemma with this product rests with management of excess application mixtures. It is likely that household users often will have (diluted) spray mixture leftover after application. It would be difficult to dispose of this

mixture in the trash, because it would generally have to be transferred to another container, which potentially creates other problems (e.g., if an empty beverage container is used as a receptacle, the contents could be confused with a beverage and ingested).

The most convenient disposal option for the excess spray solution would be to pour it down the drain or toilet. However, there is concern about disposal into the municipal wastewater stream because of the aquatic toxicity of the chemical. There is preliminary evidence that some insecticides may manifest ecotoxic effects even after passing through municipal wastewater treatment systems. It would be very helpful to know whether the chemical under consideration would be degraded in the wastewater collection/treatment system or whether it would remain toxic even after treatment. Perhaps there are fate and persistence data that would shed some light on this question.

Because of the aquatic toxicity concerns, we are considering a label statement such as "Do not dispose of product down the drain or toilet." This would cause significant practical problems for the user by eliminating the one simple option for disposing of excess spray mixture. On the other hand, due to the unknowns regarding the chemicals fate, it may be prudent to minimize the amount of this chemical introduced into the municipal wastewater treatment system.

From the perspective of pesticide disposal, it seems that this product is not a good candidate to be sold and distributed as a concentrate. Concentrates create disposal problems because:

- users will not accurately gauge how much material they need and frequently will prepare more material than they can apply;

- regardless of precautionary label language, we think it is likely that many household users will dispose of excess materials down the drain or by pouring it on the ground. All other things being equal, such disposal of concentrates could have greater ecological implications than disposal of dilute use solutions.

If the chemical were marketed as a ready-to-use product, the problem of disposing of non-containerized excess spray solution would be eliminated. (However, there may be other problems with this approach.) It seems reasonable to suggest that RD ask the registrant to provide practical disposal/use directions to address this problem, or to provide data addressing whether the chemical would be degraded before it is released from typical municipal wastewater treatment systems.