



R.E.D. FACTS

Virelure

Pesticide Reregistration

All pesticides sold or distributed in the United States must be registered by EPA, based on scientific studies showing that they can be used without posing unreasonable risks to people or the environment. Because of advances in scientific knowledge, the law requires that pesticides which were first registered before November 1, 1984, be reregistered to ensure that they meet today's more stringent standards.

In evaluating pesticides for reregistration, EPA obtains and reviews a complete set of studies from pesticide producers, describing the human health and environmental effects of each pesticide. The Agency develops any mitigation measures or regulatory controls needed to effectively reduce each pesticide's risks. EPA then reregisters pesticides that can be used without posing unreasonable risks to human health or the environment.

When a pesticide is eligible for reregistration, EPA explains the basis for its decision in a Reregistration Eligibility Decision (RED) document. This fact sheet summarizes the information in the RED document for reregistration case 4118, virelure.

Use Profile

Virelure is an insect pheromone that attracts male artichoke plume moths. They are either attracted to a trap, where they become entrapped and die, or the release of the pheromone from a dispenser disrupts their mating activity. The mode of action is non-toxic.

A manufacturing-use product and two end-use products are presently registered for virelure. End-use products are twist-ties that are distributed throughout the affected area.

Because of its containment, virelure's use sites are considered terrestrial non-food. The artichoke plume moth is only a pest of artichokes; therefore, virelure would be used in areas where artichokes are grown.

Regulatory History

Virelure was first registered as a pesticide in the U.S. in 1981. In 1989, there were three registered end-use products and two registered manufacturing-use products. As of 1996, one manufacturing-use product and two end-use products were registered; all other products were canceled for non-payment of maintenance fees. Data on product chemistry were received in response to a Data Call-In in 1993.

**Human Health
Assessment**

Toxicity

Adequate mammalian toxicology data on virelure are available for its use in a solid-matrix dispenser and will support a Reregistration Eligibility Decision (RED). Oral and inhalation toxicology indicate that virelure is practically nontoxic by these routes. Studies submitted for eye and dermal irritation resulted in a classification of Toxicology Category III.

Dietary Exposure

Since there are no food uses of virelure, dietary exposure is not expected.

Human Risk Assessment

Based on the use pattern, the potential for dermal and eye exposures to pesticide handlers exists but is expected to be negligible. Residential exposure is not expected based on the use pattern.

**Environmental
Assessment**

Adequate data are available to satisfy adverse risk concerns to nontarget organisms. Virelure is practically nontoxic to terrestrial animals. Virelure is highly toxic to freshwater invertebrates and creates an oily surface film on water that may adversely affect organisms that utilize the water surface. Based on its uses, studies for non-target plants are not required.

Based on the use pattern, the potential for exposure to non-target organisms is not expected.

**Additional Data
Required**

The generic database supporting the reregistration of virelure for the above eligible uses has been reviewed and determined to be substantially complete. Therefore, there are no further generic data requirements being imposed at this time.

**Product Labeling
Changes Required**

The labels of all registered pesticide products containing virelure must comply with EPA's current pesticide product labeling requirements. In addition:

NPDES Statement - Manufacturing-use product labels must contain the following NPDES statement: "Do not discharge effluent containing this active ingredient into lakes, streams, ponds, estuaries, oceans, or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority.

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Record 1 of 1

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| ▶ 1 | 040 | ERB #c ERB 1 | | | |
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| ▶ 3 | 088 | EPA738/R-99/003 1 | | | |
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| ▶ 6 | 110 1 | United States. #b Environmental Protection Agency. #b Office of Pesticide Programs. #b Special Review and Reregistration Division. 1 | | | |
| ▶ 7 | 245 10 | Reregistration eligibility decision (RED) #h [microform] : #b virelure ((Z)-11-hexadecenal). 1 | | | |
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For guidance contact your State Water Board or Regional Office of the EPA."

Precautionary Statement - The following statement should appear under the "Precautionary Statement" heading on the label: "Causes slight eye and dermal irritation. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling."

Environmental Hazard - The following statement should appear under the "Environmental Hazards" heading on the label: "This product is highly toxic to aquatic invertebrates. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters."

Non-Food Use - In conformity with virelure's non-food use, labels should contain the statement: "Do not contaminate water, food or feed by storage or disposal."

Regulatory Conclusion

Based on the review of the generic data for the active ingredients virelure, the Agency has sufficient information on the health effects of virelure and on its potential for causing adverse effects in fish and wildlife and the environment. The Agency has determined that virelure products, labeled and used as specified in the Reregistration Eligibility Decision, will not pose unreasonable risks or adverse effects to humans or the environment. Therefore, the Agency concludes that, for products containing virelure in twist-tie dispensers, all uses are eligible for reregistration.

For More Information

EPA is requesting public comments on the Reregistration Eligibility Decision (RED) document for virelure during a 60-day time period, as announced in a Notice of Availability published in the Federal Register. To obtain a copy of the RED document or to submit written comments, please contact the Pesticide Docket, Public Response and Program Resources Branch, Field Operations Division (7506C), Office of Pesticide Programs (OPP), US EPA, Washington, DC 20460, telephone 703-305-5805.

Electronic copies of the RED and this fact sheet can be downloaded from the Pesticide Special Review and Reregistration Information System at 703-308-7224. They also are available on the Internet on EPA's gopher server, *GOPHER.EPA.GOV*, or using ftp on *FTP.EPA.GOV*, or using WWW (World Wide Web) on *WWW.EPA.GOV*.

Printed copies of the RED and fact sheet can be obtained from EPA's National Center for Environmental Publications and Information (EPA/NCEPI), PO Box 42419, Cincinnati, OH 45242-0419, telephone 513-489-8190, fax 513-489-8695.

Following the comment period, the viresure RED document also will be available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, telephone 703-487-4650.

For more information about EPA's pesticide reregistration program, the viresure RED, or reregistration of individual products containing viresure, please contact Robyn Rose (703) 308-9581 or the Biopesticides and Pollution Prevention Division (7511WC), OPP, US EPA, Washington, DC 20460, telephone 703-308-8712.

For information about the health effects of pesticides, or for assistance in recognizing and managing pesticide poisoning symptoms, please contact Robyn Rose (703) 308-9581 or the Biopesticides and Pollution Prevention Division (7511C), OPP, US EPA, Washington, DC 20460, telephone (703) 308-8712.