United States Environmental Protection Agency | Pesticides And Toxic Substances (7508W) | 738-F-91-102 September 1991

R.E.D. FACTS

Dried Blood

Pesticide Reregistration

All pesticides sold or used 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 years ago 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, showing the human health and environmental effects of each pesticide. The Agency imposes any regulatory controls that are needed to effectively manage each pesticide's risks. EPA then reregisters pesticides that can be used without posing undue hazards to human health or the environment.

When a pesticide is eligible for reregistration, EPA announces this and explains why in a Reregistration Eligibility Document, or RED. This fact sheet summarizes the information in the RED for dried blood.

Use Profile

Dried blood, or blood meal, is produced from clean, fresh beef blood, obtained from cattle slaughter houses. The raw blood is flash dried, centrifuged to a coarse, wet powder, and then thoroughly dried at very high temperatures. The resulting dried blood powder is insoluble in water and extremely stable.

Dried blood is used in combination with other pesticide active ingredients as an outdoor animal repellant. These dust formulations are applied in a band to the soil around ornamental plants, trees and shrubs, to repel rabbits and dogs.

Regulatory History

The Federal government first registered an animal repellent pesticide product containing dried blood as an active ingredient in 1958. That product still is registered today, as are two other products containing dried blood. All three products contain dried blood in combination with the active ingredients naphthalene and either tobacco dust or thiram.

Although historically it was regulated as a conventional pesticide, EPA reclassified dried blood as a biochemical pesticide in April 1991 because it is a naturally-occurring substance and has a non-toxic mode of action.

Human Health Assessment

Toxicity

The manufacturing process for dried blood ensures that all proteinaceous products in the blood are denatured and all potential mammalian pathogens are inactivated. Therefore, the usual toxicology data requirements have been waived.

Applicator Exposure

Although people applying dried blood dust formulations could potentially experience some dermal or inhalation exposure, the dried blood in these products poses no known human risks. Therefore, no additional use restrictions are being imposed at this time.

Current labels require that applicators wear gloves to reduce their exposure to the other active ingredients in dried blood products. Before making product reregistration decisions, EPA will complete its reregistration review of each of the other three active ingredients in dried blood products. Ultimately, the Agency may require additional use restrictions or precautions on dried blood product labels, depending on the toxicity of the other active ingredients.

Human Risk Assessment

The potential risks, if any, to humans from exposure to dried blood pesticide products during application are considered negligible. EPA concludes that there are no adverse human health effects associated with the pesticidal use of dried blood alone.

Environmental Hazards

The environmental fate and effects data requirements for a biochemical pesticide have been waived for dried blood. The approved uses of this pesticide are expected to pose no significant risks to nontarget species or the environment.

Environmental Fate

Since there are no ecological effects concerns with the approved uses of dried blood, there are no environmental fate data requirements.

Ecological Effects

All ecological effects studies have been waived for dried blood because:

- when used as directed, it should result in negligible exposure and pose no hazard to nontarget organisms;
- the manufacturing process ensures that potential mammalian pathogens are inactivated and proteins are denatured;
- it is a naturally occurring substance; and
- it acts as a repellent rather than a toxicant.

Additional Data Required

No additional generic data are required at this time for reregistration of pesticide products containing the active ingredient dried blood. Product-specific data are required because dried blood pesticide products also contain other, more toxic ingredients.

Product Labeling Changes Required

The labels of end-use products containing dried blood must comply with EPA's current regulations and requirements. No other labeling changes are required at this time.

Regulatory Conclusion

- Based on EPA's review of the data base for the active ingredient dried blood, the three registered pesticide products containing dried blood can be used without causing unreasonable adverse effects in people or the environment. Therefore, they are eligible for reregistration.
- Since these three products contain other active ingredients in addition to dried blood, they will be reregistered only after their other active ingredients also have been found eligible for reregistration.
- EPA will reregister individual end-use products containing dried blood once product-specific data and revised labeling are submitted to and accepted by the Agency for all of the active ingredients in each of these products.

For More Information

EPA is requesting public comments on the Reregistration Eligibility Document (RED) for dried blood 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 or to submit written comments, please contact the Public Response and Program Resources Branch, Field Operations Division

(7506C), Office of Pesticide Programs (OPP), US EPA, Washington, DC 20460, telephone 703-557-2805.

In the future, the RED 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 dried blood or about EPA's pesticide reregistration program, please contact the Special Review and Reregistration Division (7508W), OPP, US EPA, Washington, DC 20460, telephone 703-308-8000. For information about reregistration of individual dried blood pesticide products, please contact the Registration Division (7505C), OPP, US EPA, Washington, DC 20460, telephone 703-557-5447.

For information about the health effects of pesticides, or for assistance in recognizing and managing pesticide poisoning symptoms, please contact the National Pesticides Telecommunications Network (NPTN). Call toll-free 1-800-858-7378, 24 hours a day, seven days a week, or Fax your inquiry to 806-743-3094.