

EPA Disulfoton Facts

EPA has assessed the risks of disulfoton and reached an Interim Reregistration Eligibility Decision (IREED) for this organophosphate (OP) pesticide. Provided that risk mitigation measures are adopted, disulfoton's individual, aggregate risks are within acceptable levels. Disulfoton is also eligible for reregistration, once cumulative risks are considered.

EPA's next step is to consider the cumulative risks of the OP pesticides, which share a common mechanism of toxicity. The interim decision on disulfoton will not be final until these cumulative risks also are considered. Further risk mitigation may be warranted at that time.

Used on a variety of crops, disulfoton residues in food do not pose a risk concern. Drinking water risk estimates suggest concern for potential surface water exposure. However, these are conservative estimates based on screening level models. Because of the conservative nature of these estimates and because of some uncertainties in the water assessment, the Agency believes that drinking water risks are likely to be lower than the current modeled estimates, and not of concern. Therefore, to address the potential concern for drinking water, EPA is requiring confirmatory environmental fate data and surface water monitoring data for disulfoton and its degradates. Disulfoton's residential use as an insecticide for use on ornamental flowers and shrubs, including rose bushes, and outdoor potted plants poses risk concerns to residential handlers for a few scenarios. To address the scenarios of risk concern, the registrant has agreed to the following mitigation measures: limiting maximum application rate, prohibiting application with certain hand held devices, such as belly grinders; changes in packaging, including a requirement for child-resistant packaging, and deletion of certain uses, including all indoor uses and use in home vegetable gardens. With this mitigation limiting exposure through household use, disulfoton fits into its own "risk cup" and does not pose aggregate risk

The OP Pilot Public Participation Process

The organophosphates (OPs) are a group of related pesticides that affect the functioning of the nervous system. They are among EPA's highest priority for review in implementing provisions of the Food Quality Protection Act (FQPA) of 1996.

EPA encourages the public to participate in the review of the OP pesticides. Through a six-phased pilot public participation process, the Agency has released for review and comment its preliminary and revised scientific risk assessments for individual OPs. (Please contact the OP Docket, telephone 703-305-5805, or see EPA's web site, www.epa.gov/pesticides/op.)

EPA is exchanging information with stakeholders and the public about the OPs, their uses, and risks through Technical Briefings, stakeholder meetings, and other fora. USDA is coordinating input from growers and other OP pesticide users.

Based on current information from interested stakeholders and the public, EPA is making interim risk management decisions for individual OP pesticides. The Agency will make final decisions after considering the cumulative risks of the OPs. (Please see www.epa.gov/pesticides/cumulative.htm.)

concerns. Other mitigation measures are necessary to address worker and ecological risks for disulfoton, which are of concern. To mitigate worker risk, EPA is requiring closed mixing/loading systems for liquid formulations; closed loading and transfer for granular formulations; enclosed cabs plus a dust-mist respirator for all handlers using ground application equipment; enclosed cockpits and mechanical flaggers for aerial application; maximum personal protective equipment where closed cabs are not feasible; and increased re-entry intervals for foliar application to certain crops. To mitigate ecological risks, EPA is requiring reduced number of applications allowed per year; reduced maximum rates; phase out of certain uses; a 25-foot vegetative buffer between treated fields and permanent water bodies; and a precautionary bee statement on labels. These measures substantially reduce but do not fully mitigate worker and ecological risks. However, EPA believes that the benefits of continued disulfoton use on certain commodities outweigh the worker and ecological risk. For other commodities where benefits do not outweigh the risk, use will be phased out by June 2004.

EPA is reviewing the OP pesticides to determine whether they meet current health and safety standards. Older OPs require decisions about their eligibility for reregistration under FIFRA. OPs with food, drinking water, residential, and any other non-occupational exposures must be reassessed to make sure they meet the new FFDCA safety standard, effected by the Food Quality Protection Act (FQPA) of 1996.

The disulfoton interim decision was made through the OP pilot public participation process, which increases transparency and maximizes stakeholder involvement in EPA's development of risk assessments and risk management decisions. EPA worked extensively with affected parties to reach the decisions presented in this interim decision document.

Next Steps

1. Numerous opportunities for public comment were offered as this decision was being developed. However, because some uses are being phased out, the disulfoton IRED is issued with a 30-day public comment period. (Please see www.epa.gov/pesticides/reregistration/status.htm or www.epa.gov/pesticides/op.)
2. When EPA has considered the cumulative risks of the OP pesticides, the Agency will issue its final tolerance reassessment decision for disulfoton and may request further risk mitigation measures. The Agency will revoke 33 tolerances now, because there is either no registered use or because the technical registrant has requested, and EPA has approved, voluntary cancellation of use on the commodities associated with these tolerances. Two tolerances for disulfoton will be lowered now, and several tolerances will be modified to correct commodity definitions. No tolerances will be raised and no new tolerances will be established until cumulative risks have been considered for all the OPs.