

pesticide's residues and "other substances that have a common mechanism of toxicity."

EPA does not have, at this time, available data to determine whether zinc phosphide has a common mechanism of toxicity with other substances. Unlike other pesticides for which EPA has followed a cumulative risk approach based on a common mechanism of toxicity, EPA has not made a common mechanism of toxicity finding as to zinc phosphide and any other substances, and zinc phosphide does not appear to produce a toxic metabolite produced by other substances. For the purposes of this tolerance action, therefore, EPA has not assumed that zinc phosphide has a common mechanism of toxicity with other substances. For information regarding EPA's efforts to determine which chemicals have a common mechanism of toxicity and to evaluate the cumulative effects of such chemicals, see the policy statements released by EPA's Office of Pesticide Programs concerning common mechanism determinations and procedures for cumulating effects from substances found to have a common mechanism on EPA's website at <http://www.epa.gov/pesticides/cumulative/>.

D. Safety Factor for Infants and Children

1. *In general.* Section 408 of the FFDCA provides that EPA shall apply an additional tenfold margin of safety for infants and children in the case of threshold effects to account for prenatal and postnatal toxicity and the completeness of the data base on toxicity and exposure unless EPA determines that a different margin of safety will be safe for infants and children. Margins of safety are incorporated into EPA risk assessments either directly through use of a MOE analysis or through using uncertainty (safety) factors in calculating a dose level that poses no appreciable risk to humans.

3. *Conclusion.* EPA has waived a significant portion of the data normally required in establishing a tolerance for a pesticide chemical, in evaluating the petitions for zinc phosphide. This data waiver is based on data showing that dietary exposure is unlikely to result from agricultural uses of zinc phosphide. Based on these exposure data, EPA concludes there are reliable data supporting a conclusion that no additional safety factor is necessary to protect the safety of infants and children.

E. Aggregate Risks and Determination of Safety

Zinc phosphide has both food and non-occupational uses; therefore, the considerations for aggregate exposure are those from food, drinking water, and residential (non-occupational) sources.

The Agency has concluded that there will be no human dietary exposure from the proposed or registered uses of zinc phosphide. Thus, exposure to zinc phosphide from food is not a component of the acute and chronic aggregate exposure assessment.

1. *Acute risk.* The Agency has concluded that there will be no human dietary exposure from the proposed or registered uses of zinc phosphide. Thus, exposure to zinc phosphide from food is not a component of the acute and chronic aggregate exposure assessment.

2. *Chronic risk.* The Agency has concluded that there will be no human dietary exposure from the proposed or registered uses of zinc phosphide. Exposure to zinc phosphide from food and water is not a component of the acute and chronic aggregate exposure assessment.

There are no residential uses for zinc phosphide that result in chronic residential exposure to zinc phosphide. Based on the use pattern, chronic residential exposure to residues of zinc phosphide is not expected. There is no potential for chronic dietary exposure to zinc phosphide in food and drinking water.

3. *Short-term and intermediate-term risk.* Short-term and intermediate-term aggregate exposure takes into account chronic dietary food and water (considered to be a background exposure levels) plus indoor and outdoor residential exposure. No short-term or intermediate-term dermal, oral or inhalation toxicological endpoints were identified for zinc phosphide.

Further, no incidental oral exposure is expected given the conditions of use. Although potentially accidental ingestion of zinc phosphide bait may occur in rare instances, the subgroup of children that are exposed in such a manner is not a major identifiable subgroup of consumers.

4. *Aggregate cancer risk for U.S. population.* Since chronic exposure and risk associated with the use of zinc phosphide is negligible, no risk of cancer is expected from the use of zinc phosphide.

5. *Determination of safety.* There is no drinking water, residential, nor dietary component to acute and chronic aggregate exposure to zinc phosphide residues. Based on these exposure assessments, EPA concludes that there

is a reasonable certainty that no harm will result to adults, infants and children from aggregate exposure to zinc phosphide residues.

IV. Other Considerations

A. Analytical Enforcement Methodology

Acceptable methods are available for enforcement and data collection purposes for plant commodities. The Pesticide Analytical Manual (PAM), Vol. II lists, under aluminum phosphide, a colorimetric method and a gas liquid chromatography with flame photometric detection (GLC/FPD) method as Methods A and B, respectively. Both methods determine the level of phosphine liberated when zinc phosphide is exposed to dilute acid solutions. EPA has determined that Method A is acceptable for enforcement. Data submitted in support of the established tolerances were collected by one of these two methods. Data submitted in support of the proposed tolerances were collected by the GLC/FPD method or a similar method.

The method may be requested from: Chief, Analytical Chemistry Branch, Environmental Science Center, 701 Mapes Rd., Ft. Meade, MD 20755-5350; telephone number: (410) 305-2905; e-mail address: residuemethods@epa.gov.

B. International Residue Limits

There are no international harmonization issues associated with this action since there are no Codex, Mexican or Canadian maximum residue levels (MRLs) or tolerances for zinc phosphide on any crop.

V. Conclusion

Therefore, the tolerances are established for residues of phosphine resulting from the use of zinc phosphide in or on alfalfa, forage and alfalfa, hay at 0.2 ppm; barley, grain, at 0.05 ppm; barley, hay and barley, straw at 0.2 ppm; bean, dry, seed at 0.05 ppm; beet, sugar, roots at 0.05 ppm and beet, sugar, tops at 0.2 ppm; potato at 0.05 ppm; timothy, forage and timothy, hay at 0.5 ppm; and wheat, forage, wheat, grain, wheat hay, and wheat, straw at 0.05 ppm.

VI. Objections and Hearing Requests

Under section 408(g) of the FFDCA, as amended by the FQPA, any person may file an objection to any aspect of this regulation and may also request a hearing on those objections. The EPA procedural regulations which govern the submission of objections and requests for hearings appear in 40 CFR part 178. Although the procedures in those regulations require some modification to reflect the amendments made to the FFDCA by the FQPA, EPA will continue