

US EPA ARCHIVE DOCUMENT



R.E.D. FACTS

Aluminum and Magnesium Phosphide

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. To implement the provisions of the Food Quality Protection Act of 1996, EPA considers the special sensitivity of infants and children to pesticides, as well as aggregate exposure of the public to pesticide residues from all sources, and the cumulative effects of pesticides and other compounds with common mechanisms of toxicity. 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 cases 0025 & 0645, aluminum and magnesium phosphide.

Use Profile

Aluminum and magnesium phosphide are fumigants used to control insects and rodents. They are primarily used for indoor fumigation of raw agricultural commodities, animal feeds, processed food commodities, and non-food commodities in sealed containers or structures, and for outdoor fumigation of burrows to control rodents and moles in non-domestic areas, noncropland, and agricultural areas. Aluminum and magnesium phosphide are formulated as tablets, pellets, impregnated materials and dusts. Aluminum and magnesium phosphide are restricted use chemicals. The use by certified pesticide applicators with respect to rodent control for burrows at least fifteen feet from a residential structure is considered a residential use.

Aluminum and magnesium phosphide react with moisture in the atmosphere to produce phosphine gas which is the substance that is active as a pesticide. For this reason, and given their common use sites and methods of

application, the Agency is considering these two pesticides together for the purposes of risk assessment and reregistration.

Regulatory History

Aluminum Phosphide

Development of aluminum phosphide as a source of phosphine gas for fumigation was pioneered by the German company Degesch. Aluminum phosphide was first registered as a pesticide in the U.S. in 1958 to Hollywood Termite Control Company, Inc. Although the registrant's name was changed subsequently, the original U.S. aluminum phosphide registration remains active. Currently there are 23 products containing aluminum phosphide as the active ingredient registered as pesticides in the U.S. All of these aluminum phosphide products have been classified as restricted use due to "Inhalation Hazard to Humans" (40 CFR, §152.175).

In October of 1981, EPA issued a Pesticide Registration Standard which discussed safety data and labeling for products containing aluminum phosphide. EPA also issued a data call-in associated with the Registration Standard for aluminum phosphide. Subsequently, EPA's Office of Pesticide Programs issued PR Notice 84-5, a "LABEL IMPROVEMENT PROGRAM FOR FUMIGANTS" and PR Notice 85-6, which partially revised PR Notice 84-5, but did not alter the portions of PR Notice 84-5 that pertained to aluminum phosphide.

In February of 1986, EPA announced an "Amended Registration Standard Process" for pesticides containing aluminum phosphide as the active ingredient. That action was precipitated by the Agency's having completed review of the data developed in response to the data call-in associated with the 1981 Registration Standard. In October of 1986, EPA announced another "Amended Registration Standard Process" which was intended to supersede the 1981 Registration Standard, PR Notices 84-5 and 85-6, and the amended standard for aluminum phosphide issued earlier in 1986. The second amended standard issued in 1986 required additional data submissions and labeling changes for aluminum phosphide and magnesium phosphide products.

40 CFR §180.225 identifies tolerances in raw agricultural commodities for residues of phosphine gas resulting from postharvest applications and preharvest burrow treatments with aluminum phosphide. 40 CFR §185.200 and §186.200 identify tolerances in processed foods and animal feeds for phosphine resulting from use of aluminum phosphide.

Magnesium Phosphide

Magnesium phosphide was first registered as a pesticide in the U.S. in 1979. Currently, there are four pesticide products containing this active ingredient registered in the U.S. All pesticide products containing magnesium phosphide as an active ingredient have been classified as restricted use due to "Inhalation Hazard to Humans" (40 CFR, §152.175).

In 1982, EPA announced a Registration Standard for magnesium phosphide. PR Notice 84-5 included labeling statements that were to be incorporated into the labeling of magnesium phosphide products. PR Notice 85-6 did not alter these statements.

In February of 1986, EPA announced an "Amended Registration Standard Process" for Magnesium Phosphide. The "Amended Registration Standard Process" of October 1986, which pertained to magnesium phosphide as well as to aluminum phosphide, superseded the documents for the individual chemicals issued earlier in the same year, and imposed additional data and labeling requirements for both metallic phosphides.

40 CFR §180.375 identifies tolerances in raw agricultural commodities for residues of phosphine gas resulting from postharvest applications and preharvest burrow treatments with magnesium phosphide. 40 CFR §185.3800 and §186.3800 identify tolerances in processed foods and animal feeds for phosphine resulting from use of magnesium phosphide.

Human Health Assessment

Toxicity

Aluminum and magnesium phosphide are in Toxicity Category I, the highest (most toxic) of four categories, for acute effects via the inhalation route. No significant exposure to phosphine gas is expected via the oral or dermal routes. The Agency does not believe that aluminum and magnesium phosphide pose a carcinogenic concern.

Dietary Exposure and Risk

The Chronic Reference Dose (RfD), the amount of pesticide that could be consumed daily without causing adverse effects, for aluminum and magnesium phosphide is 0.0113 mg/kg/day based on the threshold NOEL of 1.13 mg/kg/day in a 90-day inhalation study in rats. The Agency is using inhalation data to establish dietary risk because the pesticide is a gas under normal conditions and thus exposure is most likely to occur via the inhalation route. Chronic non-cancer dietary risk is estimated to occupy less than nine percent (9%) of the chronic RfD for the most sensitive sub-population. The Acute Reference Dose for aluminum and magnesium phosphide is 0.018 mg/kg/day based on a lack of treatment-related effects after 15 days of exposure in a 90-day inhalation study in rats. Acute dietary risk is estimated to

occupy 27% of the acute RfD for the most sensitive sub-population. Since residues of phosphine are not expected in drinking water, the aggregate dietary risk for aluminum and magnesium phosphide to the general population is based solely on risks from residues in food. Therefore the acute and chronic aggregate risks are the same as those mentioned above for food. Hence, significant concerns related to acute and chronic dietary exposure are not predicted.

Occupational and Residential Exposure and Risk

The handler inhalation risk assessment based on study data for fumigators, aerators and nearby persons indicates that short- and intermediate-term inhalation risks are acceptable (i.e., Margins of Exposure (MOE) greater than 100) if such handlers wear NIOSH-approved respiratory equipment (full-face respirator or SCBA depending on the scenario) while performing fumigation and aeration tasks. For nearly all scenarios and tasks, the risks are unacceptable for handlers wearing baseline attire (i.e., no respiratory protection). In addition to handlers, the Agency is concerned about the potential risks posed to occupational and residential bystanders who are not likely to be wearing the necessary respiratory protection. A number of incidents have also been reviewed and are considered to lend additional support to the Agency's risk concerns.

There is a limited registered residential use for rodent burrow treatment at the present time. A quantitative risk assessment for this use has not been conducted. However, the Agency has proposed that this use be removed.

FQPA Assessment

In accordance with the Food Quality Protection Act of 1996, the Agency uses a weight-of-evidence approach to determine whether to retain, reduce, or remove the 10X safety factor required for possible enhanced sensitivity to infants and children. The available data provided no indication of increased susceptibility of rats to in utero or postnatal exposure to aluminum or magnesium phosphide. In addition, exposure assessments do not indicate a concern for a potential risk to infants and children because residues of phosphine are not expected in food or drinking water and there is currently only a limited residential use. Given these factors, the Agency determined that the 10X safety factor to account for increased sensitivity of infants and children be removed based on an evaluation of the toxicology and exposure data.

Environmental Assessment

Environmental Fate and Ecological Effects

Aluminum phosphide and magnesium phosphide appear to be non-persistent under most environmental conditions, and are non-mobile in soil

because of their instability at atmospheric moisture contents. Other products of hydrolysis are aluminum and magnesium hydroxides. The aluminum and magnesium hydroxide residues can further react to produce mineral phases that are known to occur naturally in the environment. Inorganic phosphate and other phosphorous oxyacids are expected to be other products formed from the oxidation of phosphine gas in soils.

Under normal environmental conditions phosphine exists as a gas. Phosphine in the atmosphere is rapidly degraded. The half-life in air is approximately five hours with the mechanism of degradation being photoreaction with hydroxy radicals. The dark half-life is approximately 28 hours. The expected reaction products of phosphine in air are oxyacids of phosphorous and inorganic phosphate which are non-volatile.

Studies suggest that phosphine below the soil surface is quickly adsorbed and degraded. The interaction of phosphine with soil appears to be mixed chemisorption (irreversible) and physisorption (reversible), with the extent of each dependent on soil type.

In summary, aluminum phosphide and magnesium phosphide are expected to degrade rapidly in the environment to aluminum hydroxide and magnesium hydroxide and phosphine, the toxicant of these pesticides. It appears that phosphine will degrade in days and is at low risk for contaminating ground or surface waters. Phosphine near the soil surface is expected to diffuse into the atmosphere and be removed via photodegradation. Phosphine trapped beneath the soil surface will bind to soil, inhibiting movement, and be oxidized to phosphates.

Given the use patterns of the pesticides and these characteristics, aluminum and magnesium phosphide are not expected to pose a significant ecological risk to non-target organisms or to water resources under most circumstances, with the notable exception of some endangered species that may be found in burrows being treated with these chemicals.

Risk Mitigation

As a result of this RED, the Agency does not have concerns relative to dietary exposure (including food and water), for the general population, to aluminum and magnesium phosphide. Given the high toxicity of aluminum and magnesium phosphide and potential risks posed to occupational and residential bystanders, a number of mitigation measures are being proposed by the Agency. Since aluminum and magnesium phosphide have significant benefits (protection of stored products and public health use) and there are few if any viable alternatives, the Agency believes that it is important that a broad stakeholder process be conducted to discuss these measures and/or to develop other workable mitigation measures that adequately protect occupational and residential bystanders. These proposals present the Agency's best attempt to reduce the risks of concern. These measures are to be discussed as part of the public review and stakeholder meeting process mentioned above. The

proposals along with several questions for which the Agency would like specific input are as follows:

I. Notification of Authorities and On-site Workers

The Agency believes that it is important that anyone who might be expected to respond to an emergency involving aluminum an magnesium phosphide be well prepared to quickly and effectively respond to such a situation. Hence, the Agency is proposing that applicators would be required to ensure that the local authorities (fire departments, police departments etc.) are notified of the date, time, and location of planned fumigation events at least 24 hours in advance of beginning operations. Further, the Agency is concerned that on-site workers not directly associated with the fumigation could be inadvertently exposed to phosphine since they may frequent areas near fumigated structures. To minimize the potential for inadvertent exposures the Agency is proposing that the applicators would be required to notify any worker or other person who might be expected to be in the proximity of the fumigation/aeration, prior to fumigation.

* what authorities would need to be notified?

* who would be responsible for notification?

* what form or method of notification of both authorities and workers should be employed?

* what is the appropriate timing for notifications?

ii. Requirement for Certified Applicators

The Agency believes that a properly structured certification process provides for a high level of competence in those that are able to complete this process. This level of competence could be difficult to attain without completion of such a process. In order to better ensure the safe conduct of fumigation/aeration operations, the Agency is proposing to require that all persons who conduct these activities be a certified applicator or that certified applicators supervising the activity be within 50 ft of the operation and within clear sight-line of the persons conducting the operation. Current labels allow for non-certified fumigators and aerators to conduct activities under the direct supervision and physical presence of a certified applicator. However, it is possible

under this current language for the certified applicator to be a significant distance away from the actual operation, impeding his/her ability to adequately oversee the operations. This potential problem would be solved by requiring certified applicators to be within 50 feet (and within clear sight lines) of persons conducting fumigation/aeration operations.

* when a certified applicator is supervising an operation where should he/she be positioned with respect to the work being done?

iii. Prohibit Aeration of Railcars, Railroad Boxcars, Other Vehicles, and Containers En-Route.

The Agency is concerned about the possibility of exposure to phosphine from aeration of fumigated railcars, railroad boxcars, shipping containers, and other vehicles while in transit. This would especially be of concern during scheduled and unscheduled stops in or near populated areas. To ensure that these exposures do not occur, the Agency is proposing that aeration of fumigated railcars, railroad boxcars, shipping containers, and other vehicles while in transit would be prohibited. Labels would be required to include this prohibition.

* what measures can be taken to prevent exposures from aeration of fumigated railcars, railroad boxcars, shipping containers, and other vehicles while in transit?

iv. Placarding fumigated structures, containers, and vehicles.

The Agency is concerned about potential exposure resulting from improper entrance to fumigated vehicles that have been fumigated prior to/during transit. While the labels require monitoring of such vehicles prior to entry the labels are not always part of the shipment records and the current placards do not necessarily contain this requirement. The Agency also believes it is important that placards contain incident reporting information so that those who might be exposed be better able to report the incident. Currently, labels require the placarding of structures, containers, and vehicles that have been fumigated. The Agency is proposing as a possible requirement that these placards, or some other documentation that accompanies the structure/container/vehicle, clearly state that prior to entering the structure/container/vehicle a certified applicator or trained person under the supervision of a certified applicator (as defined above) must monitor the concentration of phosphine therein. Unloading where exposure to

workers or bystanders is possible, or entry must not occur until the measured concentrations are below the pertinent standard unless appropriate PPE is worn. These placards must also contain information for reporting incidents which is consistent with the incident reporting program developed by the registrants.

* how should information be provided to persons prior to entry into a fumigated structure or vehicle to prevent exposure? What should that information be?

* what is the appropriate mechanism for reporting incidents and how should that mechanism be communicated?

v. Establish an Incident Reporting Program.

The Agency believes that, given the toxicity of these chemicals and the incident data currently available, a structured program would need to be developed to ensure that more complete and accurate information regarding incidents is collected and analyzed. Therefore, the Agency is proposing that registrants would be required to establish programs for the comprehensive reporting of incidents to the Agency on an annual basis.

* what mechanisms can be used to report and analyze incidents involving aluminum and magnesium phosphide?

vi. Personal Protective Equipment

Given the high level of toxicity of phosphine and the Agency's concerns regarding the potential for exposure as outlined in this RED, the Agency is proposing to require that all persons involved in fumigation/aeration operations wear respiratory protection during those operations unless it can be verified via monitoring that the concentrations of phosphine are at or below the established standard. PPE would be required to be worn by any person conducting monitoring activities until concentrations are known to be below the established limit. In the event of a spill or leak, SCBA or supplied air would be required to be worn until the spill has been cleaned or the leak has been repaired.

As mentioned previously, a full face respirator is not always adequately protective, and SCBA can be cumbersome and difficult to use over extended periods of time. Supplied air is a possible alternative. Supplied air is defined as a NIOSH-approved full-face or hood respirator to which is supplied uncontaminated air, usually via a hose fed by an electric compressor. The face piece or hood must be maintained under positive pressure to maintain the maximum protection factor.

*what procedures could reduce the potential for exposure during fumigation/aeration operations?

* what equipment would provide adequate protection under various conditions?

- vii. Proposal to require two-man operation for any activity that would involve entry into a fumigated structure.

Due to the acutely toxic effects of inhaling phosphide gas the Agency is proposing that a minimum of two qualified persons would be needed to carry out any fumigation requiring entry into a structure. By implementing a two-man rule, if an applicator is unable to remove oneself from a dangerous exposure situation the second person can then assist in the safe removal of that person from danger. One person would be required to be a certified applicator and one person would need to be trained in the use of monitoring equipment and the health effects of phosphine gas. Although phosphine gas is considered to have good 'warning properties' because of a foul odor detectable by smell as low as 0.02 ppm, not all persons have the same sense of smell. Because some persons may have a poor sense of smell, and due to the capacity for the sense of smell to be fatigued after prolonged exposure, the fumigation workers should rely upon chemical detecting instruments.

*what steps can be taken to ensure that an applicator is able to exit a dangerous situation safely?

* what qualifications should the person who is acting as the second person have?

- viii. Establish 500 foot buffer zone and restricted area around all fumigated structures

The Agency is concerned about the possibility of bystander exposure to phosphine especially in residential areas especially considering the toxicity of phosphine. Based upon a review of incidents, the Agency is proposing to prohibit the fumigation and aeration of structures that are within 500 feet of residential areas. Further, a 500 foot restricted area would be implemented for all areas/structures undergoing fumigation/aeration. These steps would be taken primarily to prevent exposure to residential bystanders. Prior to entry to this area monitoring would need to be conducted to ensure that the concentrations of phosphine in the atmosphere is less than the 0.03 ppm standard established in this RED or the limit of detection of the best available technology. Entry would not allowed above that concentration unless appropriate PPE is worn. Placarding would be required to occur around the perimeter of the 500 foot restricted zone. Efforts would need to be made to request permission for placarding where placarding of the perimeter would involve other people's property.

* what size buffer zone, if any, would provide adequate protection to residential bystanders?

* what alternative measures could be put in place to achieve protection w/o a buffer zone?

* what would be the impact on the ability to fumigate various structures if a 500 foot zone was put in place?

* what measures could be put in place regarding railcars, shipping containers and other vehicles to prevent bystander exposure?

ix. Institute More Thorough Monitoring Around the Commodity

The Agency is concerned about the possibility of exposure resulting from entry into a structure where phosphine gas pockets have developed which normal monitoring would not detect. Therefore, the Agency is proposing to require stringent monitoring when unloading or otherwise disturbing a commodity that has been fumigated, since the level of phosphine gas may be higher at the core of the commodity than in the surrounding air. Monitoring at the door or hatch is insufficient in some cases. Therefore, concentrations would be required to be monitored at the top, middle, and bottom levels of the commodity/storage facility, where feasible, because of stratification of

gasses and vapors (similar to monitoring in confined spaces, OSHA 29 CFR 1910.146).

- * what steps can be taken to ensure that there are not “pockets” of phosphine gas within a given structure or commodity prior to entry?

- * what are the technical limitations to conducting this type of monitoring, if any?

x. Require Seal/Leak Testing for Fumigated Structures

The Agency believes that one potential exposure scenario would involve leakage of phosphine, especially into adjacent structures where people may be working/residing. For this reason the Agency is proposing that, prior to fumigation, the structure would undergo seal/leak testing using established methods to ensure that leakage during fumigation will not occur or is significantly minimized. Record of seal/leak tests must be retained by the certified applicator. Leaks would need to be repaired prior to fumigation. Fumigation would be prohibited in cases where substantial leaks are discovered and cannot be sealed.

- * what methods are available for conducting effective leak tests and how costly are these methods?

- * what other steps could be taken to reduce the possibility of significant leaks?

- * how can substantial leakage be defined?

xi. Establish a Minimum Distance from Residences for Burrow Use and PPE for Applicators During these Applications.

The Agency is concerned about the possibility of unintended exposure to residents or other bystanders that might result from rodent control uses near homes or other commercial facilities such as hospitals, schools, and nursing homes. Therefore, the Agency is proposing that treatment of burrows for rodent control be prohibited within 100 feet of a residence. Note that current labels have a restriction of 15 feet, which may not be protective if burrow tunnels extend toward residences (basements). Applicators involved in the fumigation of animal burrows

would be required wear respiratory protection during the course of the operation. These actions would eliminate the residential uses of aluminum and magnesium phosphide but would allow for rodent control to continue under other circumstances. In cases of public health, where no other alternatives can be found, exceptions to this item may be made.

* how can exposures to bystanders be prevented when burrows are treated in a residential or school/hospital setting?

* what, if any, size buffer zone around residential and other related structures would provide adequate protection from inadvertent exposure?

* what is the potential for seepage of phosphine into basements during a burrow treatment?

xii. Notification of Local Residents

The Agency believes that it is important to notify local residents near fumigated structures so that they can take actions if they choose to protect themselves from possible phosphine exposure. This is especially germane given the Agency's commitment to community right to know. Therefore, the Agency is proposing to require notification so that residents in adjoining properties can make decisions regarding temporarily leaving their property during fumigation. Such notification would also be required for commercial and industrial sites that are near a planned fumigation operation. The Agency proposes that the certified applicator would be required to ensure that all residents are notified within 750 feet of the fumigated structure.

* what is the most appropriate means of informing the public of impending fumigation/aeration operations?

* how should the local area be defined for purposes of notification? Is 750 ft. appropriate?

xiii. Requirement for Improved Training for Certified Applicators

The Agency believes that effective training and certification programs are needed to ensure that applicators are prepared to conduct fumigation operations safely. Since fumigation is a relatively unique

operation when compared to other agricultural and non-agricultural pest control practices, the Agency believes that a fumigation-specific certification program may be necessary. Although current labels state the need for applicators to have training in phosphine fumigation, existing training programs appear insufficient given the high incident rate. The Agency is proposing to require that the registrants work with the appropriate personnel in the Agency and in the States to develop a fumigator-specific certification program that adequately addresses all risks associated with the use of these chemicals. These programs would stress the highly toxic nature of the chemicals, fumigation/aeration-specific issues, and the importance of understanding and following label language exactly. Also, those requirements that result from the outcomes of the stakeholder meetings, must be emphasized. This effort would also include consideration of the most effective method of delivering this training.

* is there a need for a fumigation-specific training program?

* what elements should a fumigation-specific certification program contain?

* could existing programs be improved upon to meet these needs or does a new program need to be developed?

* can reciprocity or standardization be achieved? should they be achieved?

xiv. Monitoring Methods to Minimize Exposure

The Agency is concerned about exposures to phosphine given its high toxicity. Therefore, the Agency is proposing to require additional monitoring of areas around fumigated structures in order to reduce the potential for occupational and residential bystander exposure to phosphine. The Agency is further proposing to require that no fumigated structure be entered until it can be verified that the concentrations of phosphine present are at or below the 0.03 ppm standard unless appropriate PPE is worn. A certified applicator or other competent person (industrial hygienist etc.) Would be required to conduct the monitoring. All fumigation/aeration operations would be covered by this requirement including outdoor operations.

The Agency recognizes that current technology may not be capable of detecting phosphine at the 0.03 ppm level. Therefore, the best available technology would be used with the limit of detection acting as the standard until new technology becomes available at which time the 0.03 standard would be required. The Agency is aware of a “real-time” direct-read device technologies with a limit of detection of 0.05 ppm that are currently available. These devices can be equipped with audible alarms and data loggers.

Further, there is evidence that the human sense of smell can “detect” phosphine at 0.02 ppm levels (See also ix). In cases where an employee smells the gas it will be assumed that the concentrations are above the standard and proper precautions/actions taken. Under no circumstances should a person consider smell as a monitoring option in lieu of device monitoring.

- * what are the impacts of using the .03 ppm regulatory standard?
- * are there scientifically valid alternatives to the .03 ppm standard?
- * what would an appropriate monitoring scheme include?
- * is it appropriate to monitor “outdoor” operations? why or why not?

xv. Establish and Define Applicable Exposure Limits for the Label

The Agency believes that it is important that users of this pesticide be aware of all applicable workplace standards regarding phosphine. Therefore, the Agency is proposing to require that these standards appear on the label. It would be clearly stated that actions that are required currently based upon the OSHA PEL, STEL and action levels will now be required to occur based upon the 0.03 ppm standard established by this document.

- * same questions as above.

Additional Data
Required

The Agency is requiring the submission of a two-year chronic toxicity/carcinogenicity study as confirmatory data. This study is in progress

and interim data have been provided to the Agency. The Agency is also requiring a monitoring study. The monitoring data being requested must be captured for all of the phases of fumigation: application; fumigation; and aeration. The exposure levels of the applicator and assistants to phosphine during each of these phases need to be documented. In addition, ambient air concentrations in the immediate vicinity, i.e., where other personnel are working, must be documented during each phase. Further, phosphine concentrations must be measured to the limit of detection outside of the structure to 500 feet away during each phase of fumigation. In addition, product-specific data including product chemistry, revised Confidential Statements of Formula (CSFs), and revised labeling for reregistration are being required.

Product Labeling Changes Required

No labeling changes are being required at this time. Following the completion of the stakeholder process, the Agency will develop the required label changes resulting from that process.

Regulatory Conclusion

Based on the reviews of the generic data for the active ingredients aluminum and magnesium phosphide, the Agency has sufficient information on the health effects of aluminum and magnesium phosphide and on their potential for causing adverse effects in fish and wildlife and the environment. The Agency has identified risks that must be reduced in order for these chemicals to become eligible for reregistration. The Agency will conduct a public review process to identify the best ways to reduce the risks associated with aluminum and magnesium phosphide. This process will include a public comment period and a stakeholder meeting(s), as well as consultation with the USDA's Phosphine Task Force. At the conclusion of this process, the Agency will make a final determination on the reregistration eligibility of aluminum and magnesium phosphide. If found to be eligible, the Agency will specify the requirements for reregistration.

For More Information

EPA is requesting public comments on the Reregistration Eligibility Decision (RED) document for aluminum and magnesium phosphide 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, Information and Record Integrity Branch, Information Resources Services Division (7502C), 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 Internet using WWW (World Wide Web) on [HTTP://WWW.EPA.GOV/REDS](http://www.epa.gov/reds) and requires adobe acrobat or compatible reader.

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 1-800-490-9198 or 513-489-8190, fax 513-489-8695.

Following the comment period, the aluminum and magnesium phosphide RED document also will be available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, telephone 1-800-553-6847 or 703-605-6000.

For more information about EPA's pesticide reregistration program, the aluminum and magnesium phosphide RED, or reregistration of individual products containing aluminum and magnesium phosphide, please contact the Special Review and Reregistration Division (7508C), OPP, US EPA, Washington, DC 20460, telephone 703-308-8000.

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, between 9:30 am and 7:30 pm Eastern Standard Time, Monday through Friday.