

**2012 Fumigation Training Tour: Fumigant Applicators should be aware of New Requirements.
(Friday 12/16/2011 9:32 AM).**

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Rebecca Toone, 4, and her 15 month old sister 'Rachel' died after inhaling phosphine gas from a commercial pesticide application of aluminum phosphide near their home to manage rodent populations (Photo's courtesy of the Toone family).

Applicators using aluminum or magnesium phosphide fumigants for managing rodents or insects should be aware of label requirements in place since 2010. In February 2010, Rebecca Toone, 4, and her 15 month old sister, Rachel, died after apparently inhaling phosphine gas from a commercial pesticide application of aluminum phosphide near their home to manage rodent populations.

This is not the first time fumigants have been connected to deaths across the U.S. Improper use of aluminum phosphide fumigants also resulted in the death of one South Dakota girl in 2000, while sickening a family and killing their 2 year old girl in Lubbock, Texas in 2007 (pesticides.montana.edu/News/). All of these incidents have spurred EPA and product registrants to implement new restrictions regarding the phosphine fumigants. These changes include prohibiting all uses of the products around residential areas, increase buffer zones for treatment around non-residential buildings that could be occupied by people or animals, and creating more protective product labeling.

Some examples of pesticide products that are affected by this action include:

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| -Fumi-Strip | -Detaphos |
| -Fumi-cel | -Fumitoxin |
| -Magtoxin Granules | -Gastoxin |
| -Fumex | -Phosfume |
| -Phostoxin | -Weevil-cide |

Readers can find expanded descriptions of the changes to the product label on the following pages. They include changes which will impact all aluminum and magnesium phosphide fumigant applicators, changes which will only affect rodent fumigant applicators and changes which will impact only structural fumigations. This is only a guideline, applicators are urged to read and follow the entire pesticide product label prior to application.



All Aluminum and/or Magnesium Phosphide Fumigant Applications

- Prohibits all uses around residential areas, including single and multi-family residential properties, nursing homes, schools (except athletic fields), day care facilities, and hospitals.
- Increases buffer zones for treatment near non-residential buildings that may be occupied by people or animals from 15 feet to 100 feet.
- Respiratory protection must be worn when concentration levels of phosphine are unknown or when concentrations exceed the allowable limits. (0.3 ppm for an 8 hour time weighted average (TWA) or a 15 minute short term exposure limit (STEL) of 1.0 ppm).
- Warning signs (placards) must be posted in fumigated areas that include a 24-hour emergency number, DANGER / PELIGRO, and that remain in place for 48 hours.
- Fumigation Management Plans must be written before all applications of phosphine products, including all burrowing pest fumigations. A Fumigant Management Plan must be devised to cover application, exposure period, aeration time, and disposal of the fumigant so as to keep to a minimum any human exposure to phosphine and to help assure adequate control of the insect or burrowing rodent pest.
- The applicator must supply the customer with a copy of the fumigant management plan.

Rodent Fumigations

- Rodent fumigations must occur only on burrowing pests in agricultural areas, orchards, non-crop areas (such as pasture and rangeland), golf courses, athletic fields, parks and recreational areas, cemeteries, airports, rights-of-way, earthen dams, and other non-residential institutional or industrial sites.
- Maximum dosage for rodent burrows is 10-20 pellets per burrow or 2-4 tablets per burrow.
- For burrowing pest applications, products must not be applied in a burrow system that is within 100 feet of a building that is or may be occupied by people or domestic animals. This buffer zone for treatment around non-residential buildings that could be occupied by people or animals has been increased from 15 feet to 100 feet.
- When this product is used in athletic fields or parks, the applicator must post a sign at entrances to the treated site containing the signal word DANGER/PELIGRO, skull and crossbones, the words: DO NOT ENTER/NO ENTRE, FIELD NOT FOR USE, the name and EPA registration number of the fumigant, and a 24-hour emergency response number. Signs may be removed 2 days after the final treatment.

- When this product is used out-of-doors in a site frequented by people the applicator shall post a sign at the application site containing the signal word DANGER/PELIGRO, skull and crossbones, the name and EPA registration number of the fumigant, and a 24-hour emergency response number. Signs may be removed 2 days after the final treatment.

Structural Fumigations

- Maximum dosage for commodity in small containers is 1-2 pellets per 10 cu. ft.
- Transporting containers or vehicles under fumigation over public roads is prohibited.
- For stationary structures, phosphine readings must be conducted in order to characterize the application and determine the fumigator's exposure.
- All phosphine concentration readings must be documented.
- If monitoring equipment is not available, an approved canister respirator must be worn during application from within an enclosed area.
- All entrances to the fumigated structure must be placarded including areas containing rodent burrows being fumigated. The sign must be made of materials substantial enough to withstand severe weather conditions and must have 1) the signal word DANGER/PELIGRO and the SKULL AND CROSSBONES symbol in red; 2) The statement "structure and/or commodity under fumigation, DO NOT ENTER/NO ENTRE". 3) The statement "This sign may only be removed by a certified applicator or a person with documented training after the structure and/or commodity is completely aerated (contains 0.3 ppm or less of phosphine gas). 4)The date the fumigation begins; 5) the name and EPA registration number of the fumigant used; 6) the name, address and telephone number of the fumigation company and/or applicator; and 7) a 24-hour emergency response telephone number.
- When an automatic dispenser is used to add Phostoxin into the commodity stream in the leg of the elevator, monitoring must be conducted during application to determine the need for respiratory protection.

Certified private applicators may attend fumigant training sessions offered by the MSU Pesticide Education Program (PEP) and Montana Department of Agriculture on February 21st 'Glasgow', February 22nd 'Lewistown' or February 23rd 'Conrad'. Applicators can view the complete agenda by navigating to the MSU PEP website at www.pesticides.montana.edu and selecting 'Fumigation Training Tour'.

Montana certified applicators should realize they are the key to preventing this type of pesticide poisoning from occurring close to home.

FOR FURTHER INFORMATION CONTACT: Information regarding this EPA news release and aluminum and magnesium phosphide can be found at <http://www.epa.gov/oppsrrd1/reregistration/alphosphide/aluminum-magnsm-phos-fs.html>. If you have questions regarding this article contact the MSU Pesticide Education program (Cecil Tharp, Pesticide Education Specialist, 406-994-5067, ctharp@montana.edu).