



Safely using smoke generators containing pirimiphos-methyl in greenhouses and silos



Primiphos-methyl is toxic

Pirimiphos-methyl smoke generators are used to control beetles, moths and weevils in silos and whitefly in glasshouses. However, pirimiphos-methyl is an organophosphate and is toxic to both people and the environment. You should only use pirimiphos-methyl smoke generators if there are no safer alternatives available.

Products that contain primiphos-methyl

Check the label of your smoke generator to see if pirimiphos-methyl is one of the active ingredients. If it is, you need to follow the practices outlined in this document.

The **Actellic Smoke Generator** contains pirimiphos-methyl.

This document contains

This document provides guidance for people using pirimiphos-methyl smoke generators in greenhouses and silos. It incorporates information about both the old and the new rules and provides guidance on protecting your health, the health of others and the environment.

There are other rules about storing and disposing of these products safely that you must also follow but are not included in this document.

For all of the rules that apply to pirimiphos-methyl smoke generators, check the controls for approved hazardous substances database on our website.

⊕ Protect your health

Grain silos are dangerous because they have reduced oxygen and little ventilation. Glass houses can also be dangerous if they are not ventilated properly after being treated.

If you are using a smoke generator in a grain silo or glasshouse you need to take extra care to avoid exposure to pirimiphos-methyl. If you aren't careful and do not follow the manufacturer's instructions you could seriously damage your health or be overcome by the smoke and die.

Shortcuts must not be taken when using pirimiphos-methyl smoke generators.

After using a smoke generator you must wash your hands thoroughly with soap and water before eating, drinking, chewing gum, smoking or using the toilet. If you don't, you could end up consuming pirimiphos-methyl, which can cause long-term health problems.

You should also change the clothes you wore when igniting the smoke generator and, have a shower or bath with soap and water, shampoo your hair, and put on clean clothes.

Wash your work clothes separately from other clothes before wearing them again.

Always have a safety data sheet (SDS) available for your products. Information about what to do in the event of a poisoning is usually given in Section 4 of the SDS.



Using pirimiphos-methyl smoke generators safely

The safest way to use a pirimiphos-methyl smoke generator is to have the operator ignite the fuse and then immediately leave and close up the glasshouse or silo being treated. If there is a risk that the operator could be exposed to the smoke before leaving the building they should also wear respiratory protective equipment (RPE).

Approved handler

To use a pirimiphos-methyl smoke generator you must be an approved handler or be under the direct supervision of an approved handler.

Don't enter the treated building for 12 hours

After using a smoke generator the building should be well-ventilated before anyone re-enters the building.

People can only re-enter the building once the building has been well-ventilated for 12 hours after being treated with a smoke generator. If someone needs to re-enter the building to ventilate it they must wear appropriate respiratory protective equipment, and personal protective equipment (PPE) such as overalls, boots, gloves and goggles.

This 12 hour period of time is called a restricted entry interval (REI) and is in place to protect peoples' health from any smoke that is still in the air.



Wear the right safety gear

Because of the toxicity of pirimiphos-methyl you must wear the right safety gear to protect your health. If you are an employer, you must provide your staff with this gear and train them to wear it properly.

The label and safety data sheet will give you information about what PPE and RPE you must wear when handling the product. If you can't find this information, call the supplier of the product or contact the Health and Safety Group at the Ministry of Business, Innovation and Employment during business hours on 0800 20 90 20.

Protect yourself – with full PPE

When using pirimiphos-methyl smoke generators you must wear:

- chemical resistant coveralls
- chemical resistant gloves
- chemical resistant footwear plus socks
- protective eyewear
- chemical resistant headgear.

And RPE

You must also wear appropriate respiratory protective equipment to protect against breathing in the substance in dust, mist, gas or vapour forms.

After wearing PPE make sure you clean it according to the manufacturer's instructions before you, or anyone else, wears it again.

If the insecticide label offers specific instructions on how to clean the PPE, follow those instructions.

If there are no instructions available you should wash the PPE in detergent and hot water. The person washing the PPE should wear gloves when handling it.



Monitor your health

Wearing personal protective equipment does not eliminate exposure to a hazardous substance. If you are an employer and your staff are using organophosphates, you are required under the Health and Safety in Employment (HSE) Act to monitor your staffs' exposure to organophosphates, and with their informed consent, monitor their health.

This monitoring is usually done by a health service provider such as an occupational health nurse or general practitioner with a qualification in occupational health.

For further information on how to set up a monitoring regime see the information sheet *Organophosphates: health effects, monitoring and first aid* on the www.business.govt.nz/healthandsafetygroup website.

Signs

The person in charge of the building where smoke generators containing pirimiphos-methyl are being used, along with the person using the smoke generator, must ensure that signs are put up at each point of entry to the building to let people know when it is safe to re-enter.

The signs must be in place from the beginning of the application until the end of the 12 hour period when people are prohibited from entering the building. Signs must be in English, be clear, easily understood and readable from a distant of at least ten metres. They must state:

- that application of a substance toxic to humans is being carried out
- that entry into the application area is not permitted unless PPE and RPE are worn.

Signs must also:

- identify the person in charge of the application
- state the date on which the application began
- state the time and date when it is safe to re-enter the building.

You must remove the signs within three days of the end of the REI.



Pirimiphos-methyl is toxic to the environment

Pirimiphos-methyl smoke generators must only be used indoors as pirimiphos-methyl is very toxic to insects, birds, fish and other aquatic creatures.



Contact Us

For further information contact the EPA Hazardous Substances Information line on 0800 376 234 or email hsinfo@epa.govt.nz