

PESTICIDE STANDARD WRITTEN NOTIFICATION

FOR SCHOOLS, DAY CARE PROGRAMS, AND SCHOOL-AGE CHILDCARE PROGRAMS

- The school, day care center, and/or school-age childcare program is responsible for sending this standard written notification form to employees, pupils, parents etc. to insure that they receive this information at least 2 working days prior to any pesticide use.
- It is recommended that the Pest Management Professional use this ready-to-copy standard written notification form for the purpose of providing pesticide use information to the school, day care center, and/or school-age childcare program. The Pest Management Professional should save this form for copying.

School:

Name of School , Day care center, and/or School age childcare program

Pest Management Company:

(Please Print)

Name

Address

Pest Management Professional:

(Please Print)

License number

A. List the Approximate Dates on which the pesticide use shall commence and conclude

Beginning Date _____

Ending Date _____

B. Record the specific location of the anticipated pesticide use

C. Pesticide Information (Pest Management Professional should be specific as is possible when listing product(s) to be used)

Pesticide Product Name	Pesticide Type	EPA Registration #	Description/Purpose of treatment and/or application
1.			
2.			
3.			
4.			
5.			

This standard written notification must be accompanied by the following 2 documents. These materials are available from the MDAR web page www.mass.gov/agr. Follow the links to the Children's Protection page.

- Chemical Specific Fact Sheet(s)
- Consumer Information Bulletin for school, day care center, and/or school-age childcare program.

THE COMMONWEALTH OF MASSACHUSETTS

EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS



Department of Agricultural Resources

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THE ACT PROTECTING CHILDREN AND FAMILIES FROM HARMFUL PESTICIDES OF 2000

Massachusetts Pesticide Enforcement Consumer Information Bulletin FOR SCHOOLS, DAYCARE
CENTERS AND SCHOOL AGE CHILD CARE PROGRAMS

The Massachusetts Pesticide Control Act requires parents, staff, and children to receive this Consumer Information bulletin whenever pesticide applications are being made on the property of your school, daycare center or school age child care program. This bulletin is being provided to you along with a Standard Written Notification form and a Pesticide Specific Factsheet.

Why am I receiving this information and what should I do when I receive it?

The purpose of the Standard Written Notification is to provide you with information about pesticide applications which are taking place on the property of your school, day care center or school age child care program. The bulletin provides information about precautions you can take to minimize exposure to any pesticides. The Pesticide Specific Factsheets provide information about the properties of the pesticides being used.

Who applies pesticides in my school, daycare center or school age child care program?

Commercial pest management professionals, facilities managers, grounds personnel or custodians. Regardless of the approach used, the person who applies the pesticides must have a current and valid Pesticide Bureau Applicator license. Check the standard written notification form for the applicator's license number.

How do I know when pesticides are being applied?

Employees, supervised children and their guardians must receive standard written notification at least two working days prior to the application of pesticides outdoors on the property. The standard written notification form, which accompanies this bulletin, includes:

- approximate dates when the application shall commence and conclude;
- specific location of the application;
- product name, type and EPA Registration number of the pesticide;
- a Pesticide Specific Fact Sheet;
- a description of the purpose of the application and
- this Consumer Information Bulletin

The notification must also be posted in a common area of the facility at least two working days before the outdoor application is to commence and at least 72 hours after the application. Treated areas will be posted with clear and conspicuous warning signs along the perimeter. This information will be supplied to the school by the licensed pesticide applicator.

Are applications of pesticides safe?

All pesticides must be treated with caution. They are intended to be specifically poisonous to target pest insects, weeds, mold, fungus etc. - and may also be harmful to other living things including humans. Some degree of risk is always posed by their use. Because of this inherent risk, a number of regulatory and non-regulatory mechanisms have evolved to deal with those risks. Included among these mechanisms are pesticide regulations such as those enforced by Massachusetts Pesticide Enforcement; licensing and training of pesticide applicators; improved pesticide application methods; and the use of Integrated Pest Management (IPM).

What precautions can I take to minimize my exposure to pesticide applications?

There are several precautions that can be taken to reduce potential exposure to pesticides. These precautions will vary depending on where and how the pesticides are applied. Chemicals may be ingested, inhaled and absorbed through the skin. Know where the pesticide will be applied and how you might come into contact with it. Use common sense. The licensed pesticide applicator is required to post yellow signs to indicate a pesticide application on school grounds. These are some suggested general precautions. Ask the licensed pesticide applicator for other suggestions or directions specific to the work being done.

For outdoor applications:

- be familiar with the small yellow signs which applicators are required to post when a pesticide is applied outdoors to turf. Stay off the field until the flags are removed.
- if you are sensitive to chemicals, avoid the area of pesticide application for 72 hours.
- ensure that pets are kept away from the area of pesticide application

For indoor applications:

- cover or refrigerate edible products.
- remove or cover toys, clothes, and bedding from areas to be treated.
- remove pets including their food and water bowls and toys from the area to be treated.
- ventilate as much as possible during and, following an indoor pesticide application, open the windows.
- do not walk on treated areas and carpets until completely dry. Ask about drying times.

What types of pesticides will be applied?

Pesticide applicators may apply pesticides in several forms for control of insects and weeds. Dusts, aerosol sprays, sprays, baits, and fogs are all common forms in which pesticides exist and are used. For control of termites, the soil around the building may be impregnated with a pesticide. To control weeds, pesticides may be used as granules or sprays. Mechanical traps may also be used to control rodents.

In Massachusetts schools daycare centers and school age child care programs have to develop special pest management plans called Integrated Pest Management (IPM) plans. IPM is an approach to pest management which relies on a combination of common sense practices, including pesticides, for preventing and controlling pests. All plans are required to be submitted to the Department of Agricultural Resources. Check the MDAR website to see if your school has submitted its plan. <http://massnrc.org/ipm/index.html>

What if I have a question or problem?

Questions about what pesticides will be applied and why, and specific information about the application should be referred to the licensed pesticide applicator doing the work.

The Massachusetts Department of Agricultural Resources, Pesticide Enforcement is responsible for enforcing the pesticide regulations and laws. Contact Pesticide Enforcement at 617-626-1781. Additional information can be found at the Pesticide Programs website: <http://www.mass.gov/agr/pesticides/>

Updated August 2011

What are pyrethrins?

Pyrethrins are [pesticides](#) found naturally in some chrysanthemum flowers. They are a mixture of six chemicals that are [toxic to insects](#). Pyrethrins are commonly used to control [mosquitoes](#), [fleas](#), flies, moths, [ants](#), and many other pests.

Pyrethrins are generally separated from the flowers. However, they typically contain impurities from the flower. Whole, crushed flowers are known as pyrethrum powder.

Pyrethrins have been registered for use in pesticides since the 1950's. They have since been used as models to produce longer lasting chemicals called [pyrethroids](#), which are man-made.



What are some products that contain pyrethrins?

Currently, pyrethrins are found in over 2,000 registered pesticide products. Many of these are used in and around buildings and on crops and ornamental plants. Others are used on certain pets and livestock. Pyrethrins are commonly found in foggers (bug bombs), sprays, dusts and pet shampoos. Some of these products can be used in [organic](#) agriculture. Pyrethrins are also found in some head lice products regulated by the Food and Drug Administration.

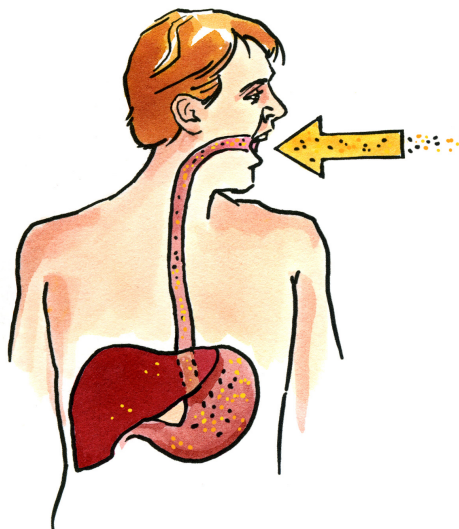
Always [follow label instructions](#) and take steps to minimize exposure. If any exposures occur, be sure to follow the First Aid instructions on the product label carefully. For additional treatment advice, contact the Poison Control Center at 1-800-222-1222. If you wish to [discuss a pesticide problem](#), please call 1-800-858-7378.

How do pyrethrins work?

Pyrethrins excite the nervous system of insects that touch or eat it. This quickly leads to paralysis and ultimately their death. Pyrethrins are often mixed with another chemical to increase their effect. This second chemical is known as a [synergist](#).

How might I be exposed to pyrethrins?

Exposure can occur if you breathe it in, get it on your skin or eyes, or eat it. For example, exposure can occur while applying sprays or dusts during windy conditions. This can also happen if you apply a product in a room that is not well ventilated. People using [foggers](#) may be exposed, especially if they come back too early or fail to ventilate properly. Exposure can also occur if you use a pet shampoo without wearing gloves. You can [limit your exposure](#) and reduce your risk by carefully following the label instructions.



What are some signs and symptoms from a brief exposure to pyrethrins?

In general, pyrethrins are low in toxicity to people and other mammals. However, if it gets on your skin, it can be irritating. It can also cause tingling or numbness at the site of contact.

Children who have gotten lice shampoo containing pyrethrins in their eyes have experienced irritation, tearing, burns, scratches to the eye, and blurred vision. When inhaled, irritation of the respiratory passages, runny nose, coughing, difficulty breathing, vomiting and diarrhea have been reported.

Dogs fed extremely large doses of pyrethrins have experienced drooling, tremors, uncoordinated movement, and difficulty breathing. Increased activity, exhaustion, convulsions, and seizures have also been reported with high doses.

When exposed to pyrethrins, people have reported some of the same symptoms that are associated with asthma. These include wheeze, cough, difficulty breathing, and irritation of the airways. However, research has not found a link between exposure to pyrethrins and the development of asthma or allergies.



What happens to pyrethrins when they enter the body?

When eaten or inhaled, pyrethrins are absorbed into the body. However, they are absorbed poorly by skin contact. Once inside, they are rapidly broken down into inactive products and are removed from the body. In a study with mice, more than 85 percent left the body in feces or urine within two days. Removal of pyrethrin 1, a major component of pyrethrins, from goats and hens was also very rapid. However, studies have found very small amounts in the milk and eggs of exposed animals.

Are pyrethrins likely to contribute to the development of cancer?

In two studies, mice and rats were fed low to high doses daily for 1.5 to 2 years. At the highest dose, some rats had an increased number of liver tumors. However, the changes in the liver leading to tumors only occurred above a certain threshold. Based on these studies, the EPA has classified pyrethrins as not likely to cause cancer. However, this rating is limited to doses below this threshold.

Has anyone studied non-cancer effects from long-term exposure to pyrethrins?

In separate studies, rats and dogs were fed low to moderate daily doses of pyrethrins for one to two years. At moderate doses, there were effects to the thyroid in rats and the liver in dogs. In another study, rats breathed in low to moderate doses daily for several months. At low doses, damage to tissue along the nasal and respiratory passages was observed. At moderate doses, lower body weights, difficulty breathing, and tremors were observed.

Scientists have also tested whether pyrethrins cause developmental or reproductive effects in rats and rabbits. In these studies, animals were fed low to moderate doses daily throughout their lives or during their pregnancies. Effects were only observed at moderate doses. These included lower body weights in some adult rats and their young. Drooling, unusual postures, and difficulty breathing were observed in one adult rabbit. Also, two rabbits lost their pregnancies. However, it is unclear if the lost pregnancies were related to pyrethrins. No effects were observed in rats or their young when fed solely during their pregnancies.

Are children more sensitive to pyrethrins than adults?

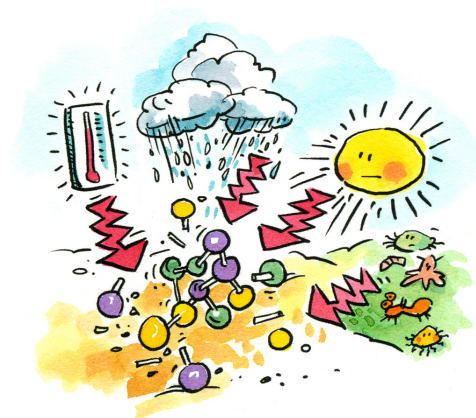
[Children may be especially sensitive to pesticides](#) compared to adults. However, there are currently no conclusive data showing that children have increased sensitivity specifically to pyrethrins.

What happens to pyrethrins in the environment?

In the presence of sunlight, pyrethrin 1, a component of pyrethrins, breaks down rapidly in water and on soil and plant surfaces. [Half-lives](#) are 11.8 hours in water and 12.9 hours on soil surfaces. On potato and tomato leaves, less than 3% remained after 5 days. Pyrethrins do not readily spread within plants.

In the absence of light, pyrethrin 1 breaks down more slowly in water. Half-lives of 14 to 17 days have been reported. When water was more acidic, pyrethrin 1 did not readily break down. Pyrethrins that enter the water do not dissolve well but tend to bind to sediment. Half-lives of pyrethrin 1 in sediment are 10.5 to 86 days.

Pyrethrins also stick to soil and have a very low potential to move through soil towards ground water. In field studies, pyrethrins were not found below a soil depth of 15 centimeters. However, pyrethrins can enter water through soil erosion or drift. In the top layers of soil, pyrethrins are rapidly broken down by microbes. Soil half-lives of 2.2 to 9.5 days have been reported. Pyrethrins have a low potential to become vapor in the air.



NPIC is a cooperative agreement between Oregon State University and the U.S. Environmental Protection Agency (U.S. EPA, cooperative agreement # X8-83560101). The information in this publication does not in any way replace or supercede the restrictions, precautions, directions, or other information on the pesticide label or any other regulatory requirements, nor does it necessarily reflect the position of the U.S. EPA.

Can pyrethrins affect birds, fish, or other wildlife?

Pyrethrins are practically non-toxic to [birds](#) but highly toxic to [honey bees](#). However, some of the risk to pollinators is limited by their slight repellent activity and rapid breakdown.

Pyrethrins are highly to very highly toxic to [fish](#). They are also very highly toxic to lobster, shrimp, oysters, and aquatic insects. This may be partly due to their higher toxicity at lower temperatures. There is evidence that long term exposure to pyrethrins can cause reproductive effects in fish and aquatic insects. In separate studies, minnows and water fleas were exposed to very small amounts of pyrethrins for one month. Fewer minnow eggs hatched and fewer water flea young were produced.

Where can I get more information?

For more detailed information about pyrethrins please visit the list of [referenced resources](#) or call the National Pesticide Information Center, between 8:00 AM and 12:00 PM Pacific Time (11:00 AM to 3:00 PM Eastern Time), Monday - Friday, at 1-800-858-7378 or visit us on the web at <http://npic.orst.edu>. NPIC provides objective, science-based answers to questions about pesticides.

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