

PESTICIDE SAFETY



Information

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

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PESTICIDE SAFETY INFORMATION SERIES (PSIS) N Series

NON-AGRICULTURAL SETTINGS

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PESTICIDE SAFETY



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CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

N No. 1

Working Safely With Pesticides in Non-Agricultural Settings

Workers who handle pesticides must be trained how to protect themselves. Handle means to mix, load, or apply pesticides; repair or clean equipment that was used for pesticides; or touch unrinsed pesticide containers.

If you handle pesticides in an industrial/institutional setting or work for a structural pest control business, landscape and maintenance firm, rights-of-way maintenance company, or similar business, the information in this leaflet will help teach you about working safely with pesticides.

Why should I worry about pesticides?

Pesticides can get into your body many different ways and can have both acute and chronic effects on your health. If a pesticide can hurt you or make you sick right away, that is an acute health effect. If you have to be exposed to a pesticide for a long time (months or years) before it makes you sick, that's called a chronic health effect. Pesticides can make you sick by moving into your body through your skin, mouth or eyes, or your lungs as you breathe.

What can a pesticide label tell me?

Most labels have a special word in capital letters on the front of the label. It tells you what the acute health hazard is.

The words you might see are:



SAFETY TIP

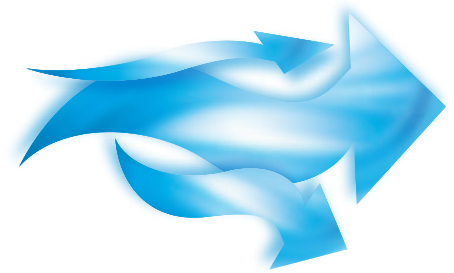
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KEEPING PESTICIDES OFF YOUR hands is often the hardest part of working safely with pesticides. Always wash your hands before eating, drinking, smoking or going to the bathroom.

- **DANGER**, this pesticide is extremely harmful.
- **WARNING**, this pesticide is moderately harmful.
- **CAUTION**, this pesticide is slightly harmful, but still can make you sick.

If the label doesn't have one of these words, it means that the pesticide is less likely to harm you. However, you should handle every pesticide carefully.

You must use pesticides according to the directions on the label. If you can't read the label, ask your employer to tell you what it says. For some pesticides, California has stricter rules than those on the label. Your employer must know these rules and tell you about them.



What safety rules do I need to follow?

1. Read the label

Read the label, and then look at the application situation for things like weather conditions, people, or buildings around you. If you are applying the pesticide indoors, the pesticide or its vapors can be moved through the building by the air conditioning or heating system. Look at these conditions and decide if it's safe before you apply a pesticide. If you don't think it's safe, talk to your employer.

2. Be especially careful with pesticides before they are mixed with water

Moving pesticide containers before the pesticide is mixed with water, and hand-pouring pesticides from their containers, are the most dangerous parts of working with pesticides. Pesticides that are mixed with water and are in the application equipment may be less dangerous, but can still hurt you. When working with these, or any pesticides, you should always try to avoid getting pesticide on yourself.

3. Wear the Right Kind of Protection

Protecting your EYES:

- You must wear eye protection when you mix, load, or apply pesticides and clean or repair equipment that was used for pesticides.
- Types of eye protection can be safety glasses (with temple and brow protection), goggles, a face shield, or a full-face mask.

Regular eyeglasses and sunglasses DO NOT provide enough protection. Pesticides can easily get around these glasses and into your eyes. The pesticide label will tell you what type of eye protection to wear.

Protecting your HANDS:

Keeping pesticides off your hands is often the hardest part of working safely with pesticides. Once a pesticide gets on your hands, it can get in your eyes if you rub them, or in your mouth. If you touch your food. Always wash your hands before eating, drinking, smoking or going to the bathroom.

- You must wear gloves when you mix, load, or apply pesticides; clean or repair pesticide application equipment; during all hand applications of



pesticides; and anytime the label says so. If the label does not say what type of glove you need, you must use gloves made of chemical-resistant material like rubber or neoprene. Never wear fabric-lined or leather gloves unless the label specifically says you may.

- Your employer must give you clean or new gloves every day you mix or load pesticides, repair or clean pesticide equipment, or apply pesticides with hand-held equipment and you must wear them.
- In a few cases, a pesticide label may tell you not to wear gloves. If it does, do not wear them.

Protecting your LUNGS:

- You must wear a respirator while using pesticides that are harmful if you breathe them (this can include fumigants, powders, dusts, and some liquids), anytime the pesticide label requires one, or if you are mixing, loading or applying most pesticides on California's list of Minimal Exposure Pesticides. Ask your employer for a copy of the N-6 safety leaflet for more information on Minimal Exposure Pesticides and for a copy of the N-5 safety leaflet for more information about respirators.



Protecting your BODY:

- Your employer must give you clean coveralls (or a long-sleeved shirt and long pants) every day that you work with pesticides with either the word **DANGER** or **WARNING** on the label.
- Your employer must give you clean chemical-resistant clothes and equipment (such as a suit that covers your body, an apron, or foot and head protection) if the label, or other rules, calls for them.
- If it is hot outside, wearing a chemical-resistant suit that covers your body may make you so hot that you can get sick. If the pesticide label says you must wear a chemical-resistant suit, then you must not work in temperatures above 80°F (27°C) during the day or 85°F (29°C) at night.
- You must use a closed system if you mix or load liquid pesticides with the word **DANGER** on the label or pesticides on California's minimal exposure list. Ask your employer for a copy of the N-3 safety leaflet that has more information on closed systems.

Remember, your employer must give you all the personal protective equipment you need, and you must wear it.

Washing pesticides off:

Your employer must give you a place to change clothes and wash up at the end of the day if you work with pesticides that have the signal word **DANGER** or **WARNING** on the label.

How do I learn about working safely with pesticides?

California law requires that you be trained before you handle pesticides for the first time and every year after that. For each pesticide (or group of pesticides that are alike chemically), your training must include all of these things:



Health effects:

- How pesticides can make you sick
- How you may feel or look if you get pesticides in or on you
- How pesticides can get in your body
- How to prevent a heat-related illness, how you may feel or look if you get sick from the heat, and first aid for this illness
- Ways to clean yourself if you get pesticides on you

What to do in an emergency:

- Emergency first aid
- How and where to get emergency medical care

Personal Protective Equipment (PPE):

- Why you need to wear PPE
- How to take care of the PPE
- What PPE can and cannot protect you against

Pesticide safety:

- The meaning of safety statements on the pesticide label
 - Safety rules for handling pesticides
 - Why you should not take pesticides or pesticide containers home
 - Pesticide dangers to the environment
-

What are my employee rights?

You have the right as an employee to know where you can find more information about pesticides, job safety information, safety leaflets, and Safety Data Sheets (SDS's). The SDS tells you about each specific pesticide and its dangers.



If you don't get all the information you need in your training, you should call your County Agricultural Commissioner, or the Department of Pesticide Regulation (DPR) for more information. You can find the Commissioner's number in your local white pages phone directory, by calling 1-87PestLine, or at:

<http://www.cdffa.ca.gov/exec/county/countymap/>

DPR's Regional Offices are:

- Northern (West Sacramento) 916/376-8960
- Central (Fresno) 559/243-8111
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Pesticide Complaint ?

I-87PestLine

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PESTICIDE SAFETY



Information

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

N No. 2

Storing, Moving, and Disposing of Pesticides in Non-Agricultural Settings

Pesticides are poisonous and must be stored or disposed of with caution and concern for others, particularly children. Every year children are poisoned from eating or drinking pesticides that someone did not put away or throw out correctly. If you follow the directions in this leaflet, you can help prevent accidents with pesticides.



MOST IMPORTANT THINGS TO REMEMBER

- Keep pesticides in their original containers.
- Never put pesticides in containers used for food, drink, or household products.
- DO NOT take home any pesticide used at work.

STORAGE

No job is finished until the pesticides, containers, and equipment have been put away properly. Always remember to store all of your materials safely before you clean up and go home, or move on to the next job. While you are cleaning up and putting away the pesticides, containers, and equipment, you must wear all the personal protective equipment you used on the job. Consider wearing gloves and other protective equipment, even if they weren't required on the label. Spills and accidents often occur as pesticides are being put away.

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How should pesticides be stored?

Pesticides and their empty containers must be kept either in a locked area, or under the control of a person who can keep others away. If the pesticides are not locked up, the person in control of the pesticides must be able to see the pesticides at all times to keep others away.

The label will tell you the right way to store the pesticide. Read and follow these directions. If you have to store pesticides in the same place as fertilizers, keep them apart. Pesticides and fertilizers can react with each other and start a fire.

Do not store pesticides near food, animal feed, or personal protective equipment. They can become contaminated with pesticide, and make people or animals sick.

Here are some acceptable ways to store pesticides:

- A locked, fenced area.
- A lockable storage compartment.
- A truck or trailer with locked side racks. (The tops of the racks should be at least six feet above the ground).

MOVING PESTICIDES SAFELY

Accidents can happen even when you are moving pesticides a short distance. If there is an accident, the pesticide can make you and maybe others sick, or contaminate the environment.

What do I need to know about moving pesticides?

FOLLOW THESE RULES:

- Never carry pesticides inside your car, car trunk, van, or truck cab. Dangerous fumes may be released. Pesticides can cause injury or death if they spill on you or your passengers. Spills on seat covers are very hard to get out. The pesticide may make people sick days or weeks later if it is not cleaned up properly.
- Close container lids tightly.
- Vehicles make turns, sudden starts, and stops. Secure pesticide containers in an upright position to prevent spills.
- Make sure all the pesticide containers have a label.
- If the pesticide has been put in another container, you must label this container. The label has to have the **name** of the pesticide, its **signal word** (Danger, Warning, Caution), and the **name and address of the person responsible** for the container and the pesticide.
- Never let your vehicle out of your sight when you are moving pesticides in an open bed truck. You are responsible if anyone is poisoned by unattended pesticides.



How do I rinse the containers?

Containers must be rinsed as soon as they are emptied. If you are using a closed mix/load system, the equipment will do the rinsing. Otherwise you can use one of these methods.

METHOD #1

1. Wear all the required personal protective equipment (PPE).
2. Fill the pesticide container about 1/4 full with water.
3. Close it tightly and shake it.
4. Pour all of this rinse water into the mix tank so it will be applied with the pesticide.
5. Repeat steps 2, 3 and 4 at least two more times.

METHOD #2 (for equipment with a rinsing unit)

1. Wear all the required PPE.
 2. Put the opening of the container over the nozzle of the machine so the liquid will drain into the tank.
 3. Turn the nozzle on and rinse until clean.
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What do I do with empty pesticide containers?

Pesticide containers are never “empty.” They still have small amounts of pesticide, even after they have been rinsed out. Never toss containers into streams, ponds, fields, or vacant buildings. Keep track of every pesticide container you used for the job. Never allow children or other persons to come in contact with empty containers, or use them for anything else. You must rinse and empty out pesticide containers properly. Empty containers must be disposed of the right way.

Ask your employer about how to dispose of containers. The county agricultural commissioner can also tell you how to dispose of empty containers, including pesticide bags. Lock up all empty bags and containers until they are disposed of.

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Are there other rules?

Depending on the pesticide, there may be additional rules. If you are moving a pesticide, you must receive training about all the rules. You and/or your employer should call the California Highway Patrol, Motor Carrier Safety Unit, if you are moving more pesticides than you will use in a few days. The Highway Patrol telephone number can be found in the Government Pages of your telephone book. You can also ask the County Agricultural Commissioner’s office for the number.



If you don't get all the information you need in your training, you should call your County Agricultural Commissioner, or the Department of Pesticide Regulation (DPR) for more information. You can find the Commissioner's number in your local white pages phone directory, by calling 1-87PestLine, or at:

<http://www.cdpa.ca.gov/exec/county/countymap/>

DPR's Regional Offices are:

- Northern (West Sacramento) 916/376-8960
- Central (Fresno) 559/243-8111
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INFORMATION LINE



1-877-378-5463

PESTICIDE SAFETY



Information

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

N No. 3

Closed Systems, Enclosed Cabs, and Water-Soluble Packaging in Non-Agricultural Settings

If you hand-pour or mix a dangerous pesticide, you are at great risk of getting hurt or sick.

There are additional safety rules you must follow when working with these pesticides. Your employer must make sure you know these rules before you use these types of pesticides.

There are many ways to protect yourself when mixing, loading, and applying pesticides. You must follow label directions, wear the right kind of clothes and personal protective equipment (PPE), and use the right kind of equipment. There are special kinds of equipment and packages for dangerous pesticides to help keep you safe.

Here are Three Special Kinds of Extra Protection from Dangerous Pesticides

1. CLOSED SYSTEMS

A “closed system” is equipment that takes the pesticide out of its container for you and then rinses the container. If you use the machine properly, it prevents the pesticide from touching you. It also moves the pesticide into the application tank and then rinses the containers and hoses for you. Before you use a closed system, you must be trained how to use it and what safety rules to follow.



When should I use a closed system?

You must use one if:

- The label requires a closed system; or
- You mix any Minimal Exposure Pesticide (see the N-6 safety leaflet for more information on this).

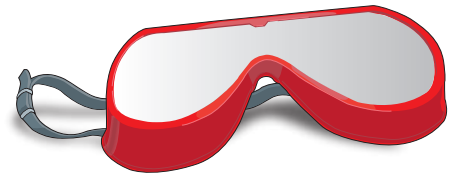
If you are mixing or loading the contents from a single original container of one gallon or less a day, you do not have to use a closed system.

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If I use a closed system, do I still need to wear personal protective equipment (PPE)?

You should always wear eye protection, even when using a closed system. But sometimes you can wear different PPE. Pesticide labels and California laws list what PPE you need for certain pesticides. There is a chart on this sheet that lists the kinds of PPE you can wear when using a closed system. Even if you don't have to wear the PPE when using a closed system, your employer must make sure the right kind of PPE is at the place where you mix and load pesticides in case of an emergency.

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Who takes care of a closed system?

Your employer must make sure the closed system is working properly and is regularly cleaned. It will not protect you if it is not working right. You have the right to wait until it is fixed before you work with the pesticide.

2. ENCLOSED CABS

An “enclosed cab” is a place where you can sit and be protected while pesticides are being applied around you. Enclosed cabs can be on any tractor, truck, or car with windows and doors that can close. Enclosed cabs should keep you from touching anything outside that has pesticide on it. Pesticide applicators can help protect themselves by using enclosed cabs.

There are two types of enclosed cabs—

- Cabs that have only the doors and windows to protect you. There is nothing to clean the outside air that comes in so you are not protected from breathing in pesticides.
- Enclosed cabs that also have special air filters that can keep you from breathing pesticides.

3. WATER-SOLUBLE PACKAGING

Water-soluble packaging is a special pesticide container or package. Both the package and the pesticide dissolve when you put the package in water. Using pesticides in water-soluble packaging protects you the same as a closed system does. NEVER cut open a water-soluble package, even if you only want to use part of it. This puts you in great danger of getting the pesticide on you and becoming sick or hurt.

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**PERSONAL PROTECTIVE EQUIPMENT YOU NEED
WHEN USING CLOSED SYSTEMS, ENCLOSED CABS,
OR WATER-SOLUBLE PACKAGING**

If you use	You may use ¹	Instead of this
Closed system for pesticides with "Danger" or "Warning" ²	Coveralls, chemical-resistant gloves, chemical-resistant apron, eye protection	PPE required on pesticide labeling, regulation, and restricted material permit condition
Closed system for pesticides with "Caution" ²	Work clothing (shirt, pants, shoes) eye protection	PPE required on pesticide labeling, regulation, and restricted material permit condition
Enclosed cab	Work clothing and respiratory protection required on the label	PPE required on pesticide labeling, regulation, and restricted material permit condition
Enclosed cab acceptable for respiratory protection ³	Work clothing	PPE required on pesticide labeling, regulation, and restricted material permit condition

- 1 For any substitution, all PPE required by the label, regulation, and restricted material permits must be available on site in case of an emergency.
- 2 Using pesticides in water-soluble packages is considered the same as mixing with a closed system. However, transfer from mix tank to application tank must be made with a closed system.
- 3 This type of enclosed cab must meet American Society of Agricultural and Biological Engineers (ASABE) standards. For more information, see "Engineering Controls" at www.cdpr.ca.gov.



If you don't get all the information you need in your training, you should call your County Agricultural Commissioner, or the Department of Pesticide Regulation (DPR) for more information. You can find the Commissioner's number in your local white pages phone directory, by calling 1-87PestLine, or at:

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CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

N No. 4

First Aid — How do I get ready for an emergency?

In case of an emergency, your employer must make arrangements ahead of time to provide you with emergency medical care if you handle pesticides. You should know the name of this clinic or hospital and where it is. If you don't know, ask your employer before an emergency happens. Never let sick or hurt people drive themselves to a doctor. They could have an accident on the road.

What should I do if someone collapses while they are using pesticides?

- Get the person away from the pesticides if you can without hurting yourself. Remember the sick person might have pesticides on them that could get on you.
- Get help RIGHT AWAY. If you have a phone, call 911.
- Try to stop pesticides from getting in or on the person's body. You can find out how later in this handout.
- If the person is not breathing, give CPR (cardiopulmonary resuscitation) if you know how. The emergency responders will take over when they arrive.

REMEMBER: Tell the emergency responders about the pesticide(s). Also, remember that pesticides may not be the problem. It could, for instance, be a heart attack.

What should I do if someone swallows a pesticide?

- Get help RIGHT AWAY. If you have a phone, call 911, or the free phone number for California Poison Control Center, 1-800-222-1222.
- If people are sleepy or unconscious from poisoning and you don't have a phone, TAKE THEM TO A DOCTOR OR HOSPITAL RIGHT AWAY.



DO NOT give them anything to eat or drink. **DO NOT** try to make them throw up.

- If the person is awake and alert, follow the first aid instructions on the label. These directions will tell you what will be helpful or dangerous. For instance, making the person throw up, or giving them milk or water to drink could be helpful, or it might be dangerous, depending on the pesticide. Never use salt water or mustard to make people throw up. Some old labels may still recommend those things, but they are not safe.

What should I do if I get sick from pesticides?

If you have a pesticide label, know what the label says about first aid.

- Stop work and leave the area **RIGHT AWAY**. You must stop working with the pesticide and stop any more from getting into your body. Read below to find out how to do this.
- **GET HELP**. Tell someone at your workplace what happened.
- Ask your employer to take you to a doctor or hospital. **DO NOT TAKE YOURSELF**.



How can pesticides get into my body?

There are four ways:

1. Breathing dust, mist, or vapor.
2. Getting it on your skin.
3. Getting it in your eyes.
4. Swallowing the pesticide.

To Stop a Person from Breathing in Pesticides:

Take any sick people where the air is clean. In open areas, go at least 100 feet away. If there is a wind, make sure the wind is blowing the pesticide away from you.

Pesticides on your Skin—

Most often, pesticides get in your body through your skin. Some pesticides move very fast through your skin. Others move slowly. Many pesticides can move through your clothes, even if they are waterproof. That is why it is important to get rid of any pesticide on your skin or clothing right away.

To Get Pesticides Off Your Skin:

- Take off all clothes that have pesticides on them.
- Shower with soap and clean under your nails. If you don't have a shower or soap, use any clean water.
- Wash your hair.
- Get dressed only in clean clothes. Do not put clothes with pesticides on them back on. If you do, more pesticides can get into your body.



Be sure to wash any clothes that have pesticides on them separately and completely before wearing them again. Ask your employer for a copy of the N-7 safety leaflet for information on how to wash clothes safely.

To Get Pesticides Out of your Eyes:

- Rinse eyes with plenty of water. Keep rinsing for at least 15 minutes. Rinsing in a shower is okay, but **DO NOT** use a hard spray.
 - Otherwise, pour water over your eyes or use a gentle flow from a faucet or hose.
 - Blink while you are rinsing.
 - **NEVER** force anybody's eyes open.
-



What do I need to tell the doctor?

Be ready to tell the doctor or nurse exactly what happened with the pesticide to make people sick. Warn the doctor or nurse that the person might be sick from pesticides so they can protect themselves. If you know, tell the doctor the age of the sick people, and what pesticide was involved. Bring any information about the pesticide to show the doctor. Bring the label or the name of the pesticide from the label, its active ingredient(s), and EPA registration number. If you can't do this, and have no other choice, bring the clean empty pesticide container (with the label still on it) or an unused, sealed container.

ALWAYS tell your employer if someone gets sick or hurt at work.

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If you don't get all the information you need in your training, you should call your County Agricultural Commissioner, or the Department of Pesticide Regulation (DPR) for more information. You can find the Commissioner's number in your local white pages phone directory, by calling 1-87PestLine, or at:

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CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

N No. 5

Protecting Yourself From Breathing Pesticides in Non-Agricultural Settings

Pesticide spray can stay in the air that you breathe. The best way to avoid breathing pesticides is to wear a protective mask called a respirator.

When should I wear a respirator?

You must wear a respirator anytime the pesticide label requires one. You may need to wear a respirator if the pesticide label says, "Avoid breathing vapor or mist."

Your employer must give you, at no cost, a respirator when it is needed. You must wear it.

Can anyone use a respirator?

Breathing through a respirator can be very hard for some people. People with problems such as high blood pressure, heart disease, or lung disease, may not be able to use a respirator safely. If you are handling a pesticide and are supposed to use a respirator, your employer must get a doctor's permission before you use a respirator. The doctor may examine you or review a questionnaire your employer will have you fill out. The doctor must give a report to your employer (and give you a copy) about whether or not you can wear a respirator safely before you use one and your employer must follow the doctor's written orders.

If I have a mustache or a beard, can I wear a respirator?

If you have a beard, a wide mustache, or long sideburns, a regular respirator cannot protect you properly because the mustache, beard



YOU MUST ALWAYS WEAR a respirator anytime the pesticide label requires one.

or sideburns keep it from making a tight seal on your face. You cannot have facial hair wherever the mask contacts the face.

If your employer does not have a respirator that can make a tight seal on your face, you cannot do the work.

What training do I need?

Before you use a respirator for the first time, you must be fit tested and trained on when you need to wear a respirator and how to use it safely. You must get trained and fit tested every year. Also, you must be told about what the respirator does and does not protect you from.

How do I get the right respirator?

There are many kinds of respirators that will protect you from different dangers. The pesticide label or your employer will tell you what kind of respirator to use. For example, some pesticides change into vapor, so you might need to wear a half-face respirator with special filters (cartridges) to protect your lungs. In other cases, a filtering facepiece mask may be all that is necessary to protect you.

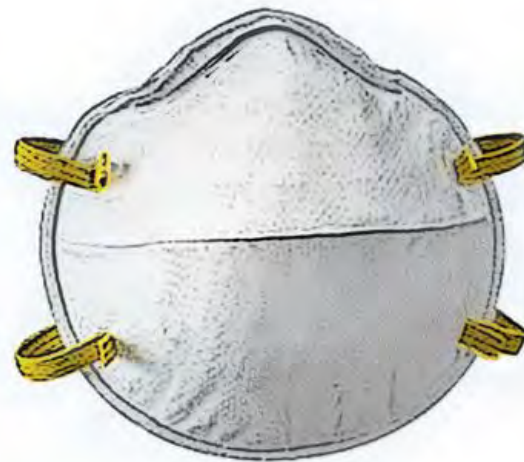
Respirators come in different sizes. It is very important that the respirator fits your face. You must be trained how to check your respirator fit. Your employer or someone he hires will make sure it fits your face. This must be done every year you have to wear a respirator. When checking how your respirator fits your face, wear it in an area where there are no pesticides.

The respirator you wear must have the letters “NIOSH” somewhere on it to show that it is an approved mask. NIOSH is the National Institute for Occupational Safety and Health.

How can I tell if my respirator is working?

Respirators do not really “clean the air.” What they do is stop most harmful chemicals from getting into your lungs. They do this with special filters. Make sure you have the right kind of filter for the pesticide you are handling. Filters stop working after a while and the pesticide can pass through them and you will breathe it in. If you notice a smell, odd taste, burning eyes or throat, or it gets hard for you to breathe, leave the area **RIGHT AWAY**. Go to a safe area that contains no pesticides. Then take off your respirator and look at it carefully. Is it torn, cracked, worn out, or dirty? If there are no problems you can see, you may need to change the filter.

Because many pesticides do not have a smell or cause any irritation, your employer must replace the filter often.



THE FILTER MUST BE REPLACED WHEN:

1. The directions on the pesticide label say so.
2. The respirator maker says it should be replaced.
3. If you notice a smell, taste, or irritation.
4. At the end of each workday.

Follow the rule that replaces the filter soonest.

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Who takes care of the respirator?

Respirators should be cleaned and inspected regularly by a person who is trained to do so. Do not use someone else's respirator. Each worker should have their own respirator or you use respirators that can be thrown away after one use.

When respirators are broken, your employer must fix them. If they cannot be fixed, your employer must get new ones.

Store respirators and all personal protective equipment away from pesticides. They need to be protected from dust, sunlight, and big changes in temperature. Water or certain chemicals can also damage the filters or cartridges. Other chemicals can damage the mask itself. Respirators should be stored so the face piece does not become bent. Hard plastic containers with air tight lids are good storage containers for respirators.



If you don't get all the information you need in your training, you should call your County Agricultural Commissioner, or the Department of Pesticide Regulation (DPR) for more information. You can find the Commissioner's number in your local white pages phone directory, by calling 1-87PestLine, or at:

<http://www.cdfa.ca.gov/exec/county/countymap/>


DPR's Regional Offices are:

- Northern (West Sacramento) 916/376-8960
- Central (Fresno) 559/243-8111
- Southern (Anaheim) 714/279-7690

Pesticide Complaint?

1-87PestLine
INFORMATION LINE

1-877-378-5463

A circular icon containing a black telephone handset on a white background.

PESTICIDE SAFETY



Information

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

N No. 6

Safety Rules for Minimal Exposure Pesticides (MEPs) in Non-Agricultural Settings

Pesticides can get into your body many different ways and make you sick. They can get in through your skin, eyes, or lungs as you breathe.

What are the “minimal exposure pesticides”?

Some pesticides are called “Minimal Exposure Pesticides,” or MEPs, because it is important to make sure you are exposed to them as little as possible. MEPs can hurt you in ways you might not notice right away. If you are exposed to them, they could be doing damage in your body and causing problems you might not notice until much later.

These are the two MEPs you might use:

1. Buctril

- **USE:** Kills broadleaf weeds in ornamental turf. Also used in landscape maintenance and rights-of-way.
- **DANGER:** If you are a pregnant woman and exposed to even a little of this pesticide, it might hurt you and/or your unborn child.

2. Metasystox-R (MSR) and Inject-A-Cide

- **USE:** Kills insects and mites in landscape maintenance and rights-of-way.
- **DANGER:** These pesticides can affect your nervous system. If you are exposed to too much of them you might start vomiting, get a headache, feel sick to your stomach, or your vision might blur. If you are a man and are exposed to even a little of these pesticides, it might hurt your ability to have children.



SAFETY TIP

6

IT IS IMPORTANT
to make sure that
your body is exposed
as little as possible
to MEPs.

What must my employer do to protect me when I use a MEP?

If you handle MEPs, your employer must make sure you have:

- One or two pieces of clothing, such as coveralls, which cover your entire body except your head, hands, and feet. Your employer must make sure that you start each work day with clean coveralls.
- Clean, chemical resistant clothes that cover your body, hands, and feet.
- The right kind of respirator (Ask your employer for the N-5 safety leaflet for more information on respirators).
- A closed system for mixing and loading, so you are not directly exposed to the pesticide (Ask your employer for the N-3 safety leaflet for more information on closed systems).
- Enough water, soap, and single use towels for normal washing and in case of an emergency where you mix and load the pesticides.
- A place with enough water, soap, and clean towels where you can change your clothes and wash at the end of your work day.
- A clean, pesticide-free place to store your own clothes while you work with these pesticides.



Are there any special rules I should know?

If you use certain kinds of equipment to protect yourself at work, you may not have to wear full body personal protective equipment (PPE). Ask your employer for a copy of the N-3 safety leaflet for more information about the equipment. The information in the table below explains the substitutions.



PERSONAL PROTECTIVE EQUIPMENT YOU NEED WHEN USING CLOSED SYSTEMS, ENCLOSED CABS, OR WATER-SOLUBLE PACKAGING

If you use	You may use ¹	Instead of this
Closed system for pesticides with "Danger" or "Warning" ²	Coveralls, chemical-resistant gloves, chemical-resistant apron eye protection	PPE required on pesticide labeling, regulation, and restricted material permit condition
Closed system for pesticides with "Caution" ²	Work clothing (shirt, pants, shoes) eye protection	PPE required on pesticide labeling, regulation, and restricted material permit condition
Enclosed cab	Work clothing and respiratory protection required on the label	PPE required on pesticide labeling, regulation, and restricted material permit condition
Enclosed cab acceptable for respiratory protection ³	Work clothing	PPE required on pesticide labeling, regulation, and restricted material permit condition

1 For any substitution, all PPE required by the label, regulation, and restricted material permit condition, must be available on site in case of an emergency.
 2 Using pesticides in water-soluble packages is considered the same as mixing with a closed system. However, transfer from mix tank to application tank must be made with a closed system.
 3 This type of enclosed cab must meet American Society of Agricultural and Biological Engineers (ASABE) standards. For more information, see "Engineering Controls" at www.cdpr.ca.gov.

If you don't get all the information you need in your training, you should call your County Agricultural Commissioner, or the Department of Pesticide Regulation (DPR) for more information. You can find the Commissioner's number in your local white pages phone directory, by calling 1-87PestLine, or at:

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INFORMATION LINE

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PESTICIDE SAFETY



Information

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

N No. 7

Washing Pesticide Work Clothing

If you work with pesticides, your work clothes can have pesticides on them. This can happen even if you wear coveralls or other personal protective equipment (PPE) over your own clothes.

This leaflet tells you how to clean your own work clothes. It is your employer's job to clean your PPE. If you don't wash your clothes, the pesticides on them can make you, and even your family sick. Following these directions will help protect you and your family from pesticides.

Wear clean work clothes every day

Wash clothes that have pesticides on them as soon as you can. The longer you wait, the harder it is to wash the pesticide off. If you keep wearing the clothes, you can get more pesticides on them. Pesticides on your clothes can get onto your skin and into your body making you sick.

Before you wash your clothes:

- If you have pesticide powder, granules, or loose dirt on your clothes, shake them off before you leave work. Pay special attention to your cuffs and pockets.
- Keep clothes with pesticides on them (including underwear) in closed plastic bags until you are ready to wash the clothes. Keep the bags outside your home. Make sure children and pets cannot get to the bags.
- Tell the person who does the laundry at home that your clothes have pesticides on them. Explain how to wash them.

You cannot get all the pesticides off of leather items such as watch bands, belts, and boots. You must throw these items away if they have pesticides on them. If you wear them again, the pesticide can get in your body through your skin.

Washing Pesticide Work Clothing



- ▶ **Wear rubber gloves**
- ▶ **Keep separate from other clothes**
- ▶ **Use a pre-soak cycle or run through the wash cycle twice**
- ▶ **Use the highest water level**
- ▶ **Wash a full cycle, in very HOT water**
- ▶ **Use a strong detergent**
- ▶ **If possible, dry clothes outside on a line**
- ▶ **Clean the washing machine by running a cycle with no clothes**

When you come home from work, do not hug or touch your family until you have changed out of your work clothes. Shower and wash your hair. This is to protect your family from pesticides.

When you wash your clothes:

- Do not mix clothes with pesticides on them with other laundry. They must be washed alone, or pesticide can get onto your family's laundry and make them sick.
 - Try to dump the clothes straight from the plastic bag into the washer, without touching them. If you have to touch the clothes, wear rubber gloves, wash the gloves, take them off, and throw them away. Then wash your hands and arms.
 - Only put a few things in the washer at one time, use the longest cycle with **LOTS** of **HOT** water and a strong detergent. Cold water will not do a good job taking out pesticides. You can use bleach if you want, but it does not help take out pesticides.
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Washing pesticide work clothing:

1. Wear rubber gloves.
 2. Keep clothes separate from other laundry.
 3. Use a pre-soak cycle or run through the wash cycle twice.
 4. Use the highest water level.
 5. Wash a full cycle, in very hot water.
 6. Use strong detergent.
 7. If possible, dry the clothes outside on a line
 8. Clean the washing machine afterward by running a cycle with no clothes.
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After you wash your clothes:

- Before you use the washing machine again, clean it by running it with no clothes—only hot water and detergent.
 - Dry your clothes on a line outside if you can. The sun will help get rid of any pesticides that are left.
 - If you dry the clothes in a dryer, run it until the clothes are completely dry. Then run the dryer empty for 10 minutes.
-



What if I spill pesticide on my clothes?

If you spill pesticides on your clothes, take them off **RIGHT AWAY**. If you spill a pesticide that is full strength (not mixed with water) **DO NOT** try to clean the clothes, you must **THROW THEM AWAY**. Follow the state and local rules for doing this (ask your employer how to do this).

What about cleaning Personal Protective Equipment (PPE)?

It is your employer's job to clean coveralls and other PPE, or they may train you how to clean your PPE at work. **NEVER** take PPE home to clean it.

Your supervisor must make sure that you change out of your coveralls and wash at the end of the workday. You should not take the coveralls home.

If you do not go to your employer's headquarters at the end of your workday, you must take off your coveralls and put them in a container (a plastic bag is good) outside of your home. Return them to your employer for washing.



If you don't get all the information you need in your training, you should call your County Agricultural Commissioner, or the Department of Pesticide Regulation (DPR) for more information. You can find the Commissioner's number in your local white pages phone directory, by calling 1-87PestLine, or at:

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PESTICIDE SAFETY



Information

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

N No. 8

Safety Rules for Pesticide Handlers in Non-Agricultural Settings

The pesticide label, your training, and this leaflet, tell you about pesticide dangers at work.

Your employer must teach you how to use pesticides safely and how to protect yourself when you use them. Pesticides are chemicals that are used to control unwanted insects, weeds, and plant diseases.

EMPLOYERS: This is the hazard communication leaflet for pesticide handlers. Fill in the blank lines in this leaflet and display this handout at the employee's worksite.

Emergency medical care

Your employer must make plans for emergency medical care before you start working with pesticides. If you think that pesticides made you sick or hurt you at work, tell your employer. They must make sure that you are taken to a doctor right away. **DO NOT TAKE YOURSELF.**

Emergency medical care is available at (address and telephone number):

REMEMBER: You do not have to pay for medical care if you get sick or hurt from pesticides at work.



If you think pesticides have made you sick at work, your employer must make sure that you are taken to the doctor IMMEDIATELY.

What are my rights?

You have the right to know the following about pesticides that have been used recently where you work:

- When and where the pesticide was applied
- Name of the pesticide and active ingredient(s)
- The EPA registration number

As part of your training, your employer must tell you where all this information is kept and also let you see the records anytime you want without having to ask.

If you get sick or hurt **BECAUSE OF YOUR JOB**, you have the right to file for worker's compensation. Workers' compensation will pay for your medical bills, and sometimes, lost pay.

You have the right to look at Safety Data Sheets (SDS) and records for all pesticides used where you work. The SDS tells you about each specific pesticide and its dangers.

These records are kept at:

Your employer must explain your rights to you. If you need more help in understanding your rights, call or go to your local county agricultural commissioner's office, local legal aid and worker's rights office, union or the Department of Pesticide Regulation (DPR).

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Who do I tell about dangers at work?

Pesticides are only one kind of danger at your work. If you have a complaint about a pesticide safety problem, you should call your County Agricultural Commissioner. You can look up the Commissioner's number in the government pages of your local phone book, or by calling DPR's toll-free complaint information line, **1-87PestLine (1-877-378-5463)**. Other health and safety complaints (bathrooms, heat stress, drinking water, etc.) should be filed with the California Department of Industrial Relations Cal/OSHA office.

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What training should I get?

Your employer must:

- Train you in a way that you understand **BEFORE** you begin working with pesticides, and anytime you work with new pesticides.
- Give you training each year to remind you how to work with pesticides safely.
- Tell you the ways a pesticide can hurt you and how to safely use each



pesticide you work with (Ask your employer for the N-1 safety leaflet to learn more about training).

- Give you extra training if you have to use a respirator (ask your employer for the N-5 safety leaflet).
- Tell you how to move pesticides from one place to another, or dispose of empty pesticide containers (there are special rules your employer must tell you about. Ask for the N-2 safety leaflet for more information).

Other safety leaflets mentioned in this document should be part of your training. They are free and are available from your employer and your County Agricultural Commissioner's office.

All the information about your training must be written down. You will be given a paper to sign to show you have been trained. Only sign this form after you have finished the training and you understand what you heard.



What can a pesticide label tell me?

All pesticides are poisonous. If a pesticide gets in or on you, it can hurt you or make you sick. The pesticide label tells you how to safely mix and apply the pesticide. **The label must be at the place where you mix or apply the pesticide.** You must read and follow **ALL** directions on the label. There may be additional product bulletins or label information that you must read and follow.

Some of the most important things listed on the label are:

1. Chemicals in the pesticide.
2. First aid and health warnings.
3. Protective equipment needed.
4. Directions for applying the pesticide.

How can I tell which pesticides are more dangerous?

Most pesticide labels have a signal word in large print on the front of the label. This word tells you about the acute health effect of the pesticide. If a pesticide can hurt you or make you sick right away, that's called an acute effect. If it takes months or years of exposure to a pesticide before you get sick, that's called a chronic effect.

These are the words that tell about acute effects:

- "DANGER"—this pesticide is extremely harmful.
- "WARNING"—this pesticide is moderately harmful.
- "CAUTION"—this pesticide is slightly harmful.

If the label doesn't have one of these words, it means that the pesticide is less likely to harm you. **However, you should handle every pesticide carefully.**

Pesticide Name EPA Registration No.	
Active Ingredients	xx%
Inert Ingredients	x%
DANGER	
First Aid Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur.	
Precautionary Statements Hazards to Humans Personal Protective Equipment Environment Hazards	
Agricultural Use Requirements Em ipsum dolor sit amet, consectetur in voluptate velit esse cillum dolore eu fu	
Directions for Use Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.	

What else does the label tell me?

- If the pesticide can severely hurt your eyes or skin, the label will say something like “Corrosive, causes eye and skin damage.”
- If the pesticide can make you very sick, the label will have a skull-and-crossbones symbol and the word “POISON.”
- Words like “FATAL” or “may be fatal if swallowed, inhaled, or absorbed through the skin,” mean the pesticide can make you very sick or even kill you.
- Some pesticide labels tell you about other health problems that might not show up until long after use (may take years), such as cancer or dangers to unborn babies.

Are there any extra rules for very dangerous pesticides?

Yes, there is a group of pesticides, called Minimal Exposure Pesticides (MEPs) that California has extra rules for because they could be especially dangerous to you.

These are the pesticides on this list:

1. Buctril
2. Metasystox-R

See the N-6 safety leaflet for more information about safety rules if you have to work with these pesticides.



SUMMARY OF RECORDS YOUR EMPLOYER MUST KEEP

Information	Location
Training papers	Employer's office site
Written training program	Employer's office site
Respirator program procedures	Employer's office site
Accident response plan (fumigants)	Work site
Pesticide label	Work site
Pesticide Safety Information Series	Employer's office site
Safety Data Sheet	Employer's office site
Storage area posting ¹	Storage area
Emergency medical care notice	Work site
Doctor's report for respirator use	Employer's office site
Pesticide use records	Employer's office site

¹ Required only for pesticides with the Signal word “DANGER” or “WARNING”

Proposition 65

In 1986, a law called the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) was passed. Proposition 65 requires California to make a list of chemicals that cause cancer, birth defects, or other reproductive harm. The Proposition 65 list contains many different chemicals, including dyes, solvents, pesticides, drugs, and food additives. Your employer may also choose to warn you if a pesticide on the Proposition 65 list has been sprayed, even if health problems are not likely. Your employer is required to keep information on each pesticide application and allow you to look at it. If you are not sure of the record location, ask your foreman.

The list of pesticides that are on the Proposition 65 list and that might be used in California, can be found at <http://www.cdpr.ca.gov/docs/dept/factshts/prop65.htm>.

DOWNLOAD current Proposition 65 list of chemicals known to the State to cause cancer or reproductive toxicity:

http://www.oehha.ca.gov/prop65/prop65_list/Newlist.html

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If you don't get all the information you need in your training, you should call your County Agricultural Commissioner, or the Department of Pesticide Regulation (DPR) for more information. You can find the Commissioner's number in your local white pages phone directory, by calling 1-87PestLine, or at:

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