There are many ways to protect yourself while mixing and applying pesticides. You must follow label directions. You must wear the right kind of clothes and other personal protective equipment (PPE). There are also special kinds of equipment and pesticide packages that can help keep you safe.

Here are three special kinds of extra protection from dangerous pesticides

1. CLOSED SYSTEMS

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

When should I use a closed system?
You must use one if:

- you mix liquid pesticides with the word “DANGER” on the label, or
- you mix any Minimal Exposure Pesticide (Buctril, Omite, Comite, Metasystox-R).

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

You should wear eye protection, even when you are 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 the back page of 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, your employer must make sure you know these rules before you use the pesticides.

If you hand-pour or mix a dangerous pesticide, you are at great risk of getting hurt or sick unless you follow all the safety rules.

Your employer must make sure you know these rules before you use the pesticides.
sure that the right kind of PPE is at the place where you mix pesticides in case of an emergency.

**Who takes care of a closed system?**

Your employer must make sure the system is regularly cleaned. He must make sure it is always working like it should. If it is not, it will not protect you. 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. It can be the cockpit of a crop duster. It can also be a closed cab on a tractor. Or it might be a truck or car with the windows and doors closed. All of these would keep you from touching anything outside that has pesticide on it. Pesticide applicators, pilots, and flaggers can 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 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 mixing with a closed system. But if the pesticide has the word “DANGER” on the label, you must still use a closed system if you move the diluted pesticide to another tank. NEVER cut open this kind of 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.

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

<table>
<thead>
<tr>
<th>If you use</th>
<th>You may use</th>
<th>Instead of this</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closed system for pesticides with “Danger” or “Warning” 2,3</td>
<td>Coveralls, chemical-resistant gloves, chemical-resistant apron eye protection</td>
<td>PPE required on the pesticide labeling</td>
</tr>
<tr>
<td>Closed system for pesticides with “Caution” 2,3</td>
<td>Work clothing (shirt, pants, shoes) eye protection</td>
<td>PPE required on the pesticide labeling</td>
</tr>
<tr>
<td>Enclosed cab</td>
<td>Work clothing and respiratory protection required on the label</td>
<td>PPE required on the pesticide labeling</td>
</tr>
<tr>
<td>Enclosed cab acceptable for respiratory protection</td>
<td>Work clothing</td>
<td>PPE required on the pesticide labeling</td>
</tr>
</tbody>
</table>

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1 For any substitution, all PPE required by the label must be available on site in case of an emergency.

2 If the closed system is not under pressure, you do not need to wear eye protection.

3 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.