

# PESTICIDE SAFETY



Information

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

**A No. 3**

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

For certain pesticides, there are extra safety rules, special equipment, and packages to help keep you safe. 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.

### HERE ARE THREE SPECIAL KINDS OF EXTRA PROTECTION TO USE WHEN WORKING WITH DANGEROUS PESTICIDES

#### 1. Closed Mixing Systems

A “closed mixing system” is equipment that protects you from dangerous pesticides that can get on your skin. The pesticide label will tell you if a pesticide is dangerous if it gets on your skin. Closed mixing systems take the pesticide out of its container for you and prevent the pesticide from touching you. They may also remove the pesticide from the container and any hoses into the application tank for you. Before you use a closed mixing system, you must be trained how to use it and what safety rules to follow.

There are two types of closed mixing systems:

- **Tier 1** closed mixing system that removes the pesticide from the container and rinses and drains the empty container while it is still connected to the closed system.
- **Tier 2** closed mixing system that removes the pesticide from the container but does not rinse the container.



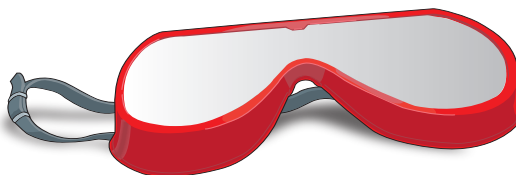
## When Do I Use a Closed Mixing System and What Type Should I Use?

**You must use a Tier 1 closed mixing system** if you mix liquid pesticides with statements on the label that say “Fatal if absorbed through the skin” or something similar.

**You must use a Tier 2 closed mixing system** if you mix liquid pesticides, except spray adjuvants, with statements on the label that say “May be fatal if absorbed through the skin,” “Corrosive, causes skin damage,” “Corrosive. Causes skin burns,” or something similar.

If you are mixing or loading one gallon or less of a pesticide requiring use of a Tier 2 closed mixing system in a single day, you do not have to use a closed mixing system, but you must wear all PPE required by the label or other rules.

If you mix or load a Minimal Exposure Pesticide, you can use a closed system to protect you and not wear certain PPE. Ask your employer for a copy of the A-6 safety leaflet for more information on Minimal Exposure Pesticides.



## Who Takes Care of a Closed Mixing System?

Your employer must make sure the closed mixing 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.

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## 2. Water-Soluble Packaging

For certain pesticides, the manufacturer of the pesticide also takes steps to protect you from harm. “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 mixing 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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## 3. 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 the cockpit of an aircraft, or any tractor or other vehicle with windows and doors that can close. Enclosed cabs must keep you from touching anything outside that has pesticide on it. The label may require you to use an enclosed cab during application. Your employer may also provide an enclosed cab for extra safety.

Even if you don’t have to wear all of the PPE required by the label or California’s rules, it must be with you and stored in a sealed container. You must wear the PPE if you exit the cab while you are in the treated area. Once you wear PPE in the treated area, you must remove it before reentering the cab.



## IF I USE EXTRA SAFETY EQUIPMENT, DO I STILL NEED TO WEAR PERSONAL PROTECTIVE EQUIPMENT (PPE)?

You must always wear eye protection when using a closed system, which includes pesticides in water-soluble packaging. But sometimes you can wear different PPE. Pesticide labels and California laws list what PPE you need for certain pesticides. The chart below lists the kinds of PPE you can wear when you use extra safety equipment. Even if you don't have to wear all the PPE on the label when you use extra safety equipment, all the PPE must be at the place where you mix and load pesticides in case of an emergency.



If you don't get all the information you need in your training or want to make a pesticide use complaint, you should call your County Agricultural Commissioner, or the DPR for more information. You can find the Commissioner's number in your local white pages phone directory, by calling 1-87PestLine, or at: [www.cdpr.ca.gov/exec/county/countymap](http://www.cdpr.ca.gov/exec/county/countymap)

### DPR's Regional Offices are:

- Northern (Sacramento) (916) 603-7700
- Central (Clovis) (559) 297-3511
- Southern (Anaheim) (714) 279-7690



All safety leaflets are available at:  
[www.cdpr.ca.gov/worker-health-and-safety/education-series](http://www.cdpr.ca.gov/worker-health-and-safety/education-series)

### PPE YOU MAY USE WITH EXTRA SAFETY EQUIPMENT

If you use	Instead of	You may use <sup>1</sup>
Closed mixing system or water-soluble packets for pesticides with a "Danger" or "Warning" signal word	PPE required by the label or California's rules	Coveralls, chemical-resistant gloves, chemical-resistant apron, and eye protection
Closed mixing system or water-soluble packets for pesticides with a "Caution" signal word	PPE required by the label or California's rules	Work clothing (shirt, pants, shoes) and eye protection
Enclosed cab	PPE required by the label or California rules when respirator is not required	Work clothing
Enclosed cab <b>with</b> a properly maintained and functioning ventilation system	PPE required by the label, including a filtering face piece or dust/mist filtering respirator, or by California's rules	Work clothing
Enclosed cab	PPE required by the label, including a different type of respirator, <sup>2</sup> or by California's rules	Work clothing and the respirator required by the label

<sup>1</sup> All PPE required by the label or California's rules must be at the work site in case of an emergency.

<sup>2</sup> For example, a half-face or full-face respirator with an organic vapor cartridge.