



# Greenhouse REI



- **RESTRICTED ENTRY:** No one is allowed to enter or remain in the prohibited area in a greenhouse during the application or the Restricted Entry Interval (REI), except the persons making the application. The Restricted Entry Interval is on the pesticide label. The size of the prohibited area varies depending on how the pesticide is applied:

- **The prohibited area, until ventilation criteria have been met, is the entire enclosed area plus any adjacent area that is not sealed (sufficient to prevent pesticide transfer) from the treatment site** when the pesticide is applied as a space treatment (fumigant, smoke, fog, aerosol or mist) or is a pesticide for which the product labeling requires respiratory protection. CCR 6762
- **The prohibited area is the treatment site plus 25 feet in all directions within the enclosed area** when the pesticide is applied as a spray from a height greater than 12 inches from the soil or other planting medium, as a fine spray, or using a pressure of more than 40 pounds per square inch. CCR 6762
- **THE PROHIBITED AREA IS THE TREATMENT SITE, if the pesticide is applied in any other manner.**



- Posting is required for all greenhouse applications, unless access is controlled in a manner that assures no employee (other than the handlers making the application) will enter, work in, remain in, or pass through the greenhouse during the application and the restricted entry interval. Depending on how the pesticide is applied the entire greenhouse will need to be posted and off limits to employees or only the treatment area within the greenhouse will be posted. If employees will be working in another part of the greenhouse during an application, post only the treated area and not the entire greenhouse. **The area must be posted before the application begins.** CCR 6776

# Posting

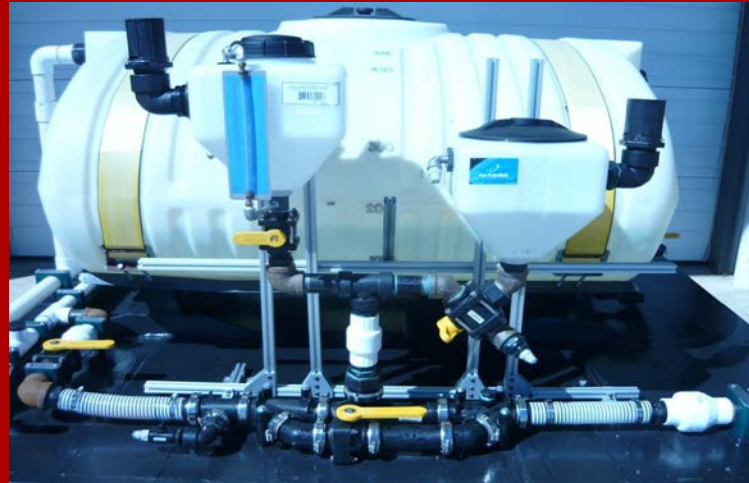
---



When a pesticide with product labeling requiring respiratory protection for application is applied by any method, or when any pesticide is applied as a fumigant, smoke, mist, fog, or aerosol inside a greenhouse, the greenhouse must be ventilated until:

- (a) The concentration is measured and found not to exceed any pesticide product labeling standard; or
- (b) One of the following has occurred if there is no labeling standard:
  - (1) Ten air exchanges are complete;
  - (2) Two hours of mechanical ventilation, such as with fans;
  - (3) Four hours of passive ventilation, such as opening vents, windows, or doors;
  - (4) Twenty-four hours with no ventilation; or
  - (5) Any combination of percentage portions of (1), (2), (3), and (4) the sum of which equals 100%. CCR 6769

**Note** that the ventilation criteria must be completed before employees can enter the greenhouse even if the REI of the product used has already expired.



# Closed Mixing Systems (CMS)

Effective January 1, 2016



- Employees mix or load liquid “DANGER” pesticides, including dilute solutions derived from these pesticides, for the production of an agricultural commodity.
- Employees mix or load any pesticides labeled for use only with a CMS.
- Employees mix or load minimal exposure pesticides. (3CCR § 6790)

Use of closed mixing systems  
prior to the regulatory update... 7



- The primary change is that the requirement to use a CMS is no longer triggered by the signal word and formulation (i.e. “DANGER” liquid pesticides), but by the PRECAUTIONARY STATEMENT on the pesticide label.
- Employees mix or load any pesticides labeled for use only with a CMS. **Still applies✓**
- Employees mix or load minimal exposure pesticides. (3CCR § 6790) **Still applies✓**

## So What Changed?





- Performance Based
- No Loading Aspect
- New Triggers (Fatal, Maybe Fatal, Skin damage)
- Tiered System (I & II)
- Written operating instructions for ALL systems
- Employees using CMS must have written operating instructions
- Training on the CMS
- Maintenance Requirements
- Exemptions
  - Removal of the seal
  - 1 gal. for Tier II

# 6746 Changes



## Tier I

---

- "Fatal if absorbed through skin"
- Includes adjuvants
- Must be rinsed while still connected to the closed mixing system

## Tier II

---

- "May be fatal if absorbed through skin" or "Corrosive, causes skin damage"
- excluding adjuvants
- Can be disconnected to be rinsed

## Tier I Vs. Tier II CMS?

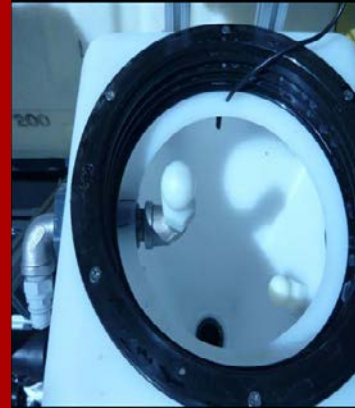
---



## Tier I



## Tier II



# Rinsing



---

## PRECAUTIONARY STATEMENTS

---

### DANGER

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Fatal if swallowed, inhaled or absorbed through the skin. Do not breathe dust. Do not get in eyes, on skin, or on clothing.

Corrosive. Causes irreversible eye damage.

**Do Not Breathe Dust.**

**Do Not Contaminate Food or Feed Products.**

Once a container has been opened, use it completely. Make sure the hoppers are emptied while still in the field. Refer to **STORAGE AND DISPOSAL** statement for further instructions.

**Keep Out of Reach of Domestic Animals. Not for Use or Storage in or around the Home.**

Fatal if absorbed through skin.  
Closed Mixing System Tier 1 Required

May be fatal as a result of skin contact  
Closed Mixing System Tier 2 Required

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### Danger

Poisonous if swallowed or inhaled. May be fatal or harmful as a result of skin or eye contact or by breathing spray mist. Causes cholinesterase inhibition. Warning symptoms of poisoning include weakness, headache, sweating, nausea, vomiting, diarrhea, tightness in chest, blurred vision, pinpoint eye pupils, abnormal flow of saliva, abdominal cramps, and unconsciousness. Atropine sulfate is antidotal.



## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if absorbed through skin  
Closed Mixing System Not Required



DANGER / POISON  
PELIGRO

May be fatal if swallowed. Fatal if inhaled. Do not breathe spray mist. Wear a dust mist NIOSH-approved respirator with any N, R, P, or HE filter. Causes substantial but temporary eye injury. Wear protective eyewear (face shield required when mixing/loading). Harmful if absorbed through skin. Do not get in eyes, on skin, or on clothing. Avoid contact with skin.

**IMPORTANT:** Inhalation is an unlikely route of exposure due to low vapor pressure and large spray droplet size, but mucosal irritation or nose bleeds may occur. Prolonged contact with this concentrated product can irritate your skin.



- The comparable language was added so that as labels change we don't have to change the regulation
- If it touches your skin and is fatal, you need a Tier I. If it might be fatal then a Tier II is required
- Skin Damage – means burns, blisters, injury (not irritation)
- Applies to skin not eye's
  - §6746 – mandatory eye protection requirement for CMS

## Comparable Language



- **Causes skin bumps or temporary discoloration on exposed skin.**
  - **No CMS required (with just this statement)**
  - **Corrosive. Concentrate causes irreversible eye damage.**  
**Concentrate may be fatal if swallowed or absorbed through skin.**  
**Concentrate causes skin burns or temporary discoloration on exposed skin. Do not breathe vapor of concentrate.**
    - **(Tier II) (Storox)**
- **Corrosive. Fatal if swallowed. Fatal if absorbed through skin.**  
**Fatal if inhaled. Causes skin burns**
  - **Corrosive. Fatal if swallowed. Fatal if absorbed through skin.**  
**Fatal if inhaled. Causes skin burns. Causes moderate eye irritation. Do not get in eyes, on skin, or on clothing. Do not breathe spray mist.**
    - **(Tier I) (MSR Spray Concentrate)**

# Guess that Tier!



- **Harmful if absorbed through skin**
  - **Harmful if swallowed. Harmful if absorbed through skin**  
**Harmful if inhaled Avoid contact with eyes, skin, or clothing**  
**Avoid breathing spray mist or vapor. Prolonged or frequently repeated skin contact may cause allergic reactions in some individual**
    - **(No CMS) (Thiram)**
- **Prolonged or frequently repeated skin contact may cause allergic reaction**
  - **Harmful if swallowed. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.**
    - **(No CMS) (Acramite – 4 SC)**

# Keep Guessing!



- “Shall” to “Must”
- External Sight Gauges must be protected!!



# 6742 Safe Equipment



- CMS Construction
  - Must be designed to remove a pesticide from its original container and transfer the pesticide product through connecting hoses, pipes and couplings that are sufficiently tight to prevent exposure of any employee to the pesticide concentrate or, when rinsing is required, the rinsate.
  - All elements of the closed mixing system, such as hoses, connectors, and valves, must be designed and maintained for the pesticides being transferred and the pressures or vacuums being generated during system operation. .
- Operating instructions must be available with the CMS

# What to look for!



- (1) Mixing pesticides using a method or mixing device required by the pesticide product label – Label is preemptive
- (2) Opening of a container by removal of the manufacturer's original sealing device – you can remove the aluminum foil seal
- (3) Regulatory personnel collecting samples of pesticides.
- (4) The rinsing of refillable pesticide containers that are required to be returned to a pesticide dealer, pesticide registrant, or manufacturer – don't want to introduce a contaminate to the container
- (5) Where a Tier II system would normally be required, a CMS is not required if the employee handles a daily maximum of one gallon or less.

# Exemptions





Batch Boy



Goat Throat



Green Leaf



Micro-Matic



PBM



Pentair



Banjo



Big W Sales

# CMS Recognized by Department of Pesticide Regulation



# Questions?



Walter Mayeda, Agricultural Inspector  
Santa Cruz County Agricultural Commissioner's Office  
Phone: (831) 763-8080  
Email: [agc060@agdept.com](mailto:agc060@agdept.com)  
175 Westridge Drive  
Watsonville, CA 95076