California Department of Pesticide Regulation
Summary of Proposed Control Measures for Chloropicrin

May 15, 2013

The Department of Pesticide Regulation (DPR) is proposing added controls for chloropicrin when it is used as a soil fumigant. The proposed controls are intended to reduce risk from acute (short-term) exposures that might occur near fields fumigated with products containing chloropicrin. Although chloropicrin is often added to other fumigants to act as a warning agent, the controls DPR is proposing are only for its use as a soil fumigant.

DPR studied the effects of chloropicrin in a risk assessment, which was completed in 2010. The risk assessment determines how toxic the chemical is, how persons could be exposed when the chemical is applied, the possibility that the chemical will cause harm, and how great the risk is that persons will be harmed from the chemical’s use. The chloropicrin risk assessment identified potential risks to persons working or living near fields that were fumigated with chloropicrin. DPR has developed extra control measures to protect persons from these potential hazards.

Why is DPR Proposing Additional Controls on Chloropicrin?
- Chloropicrin may pose a health hazard. Pesticide-related illnesses are unacceptable and people need to be protected.
- DPR’s goal is to ensure the use of chloropicrin in soil fumigations does not cause eye or respiratory irritation to persons working or living near fumigated fields.
- Although U.S.EPA recently revised soil fumigant labels to protect workers handling fumigants, as well as people living and working near fumigated fields, DPR feels that more protection is warranted.
- These proposed controls are intended to protect against eye and respiratory irritation. By protecting people from these reversible effects, we will also protect people from seasonal and chronic respiratory health effects.

How is Chloropicrin Used for Soil Fumigations?
Chloropicrin is used to control soil pathogens, nematodes, and certain weeds. It is used alone, or mixed with another fumigant, either 1, 3-dichloropropene (1, 3-D) or methyl bromide. Chloropicrin is primarily used to treat soil prior to planting strawberries, nurseries, raspberries, peppers, tomatoes, and melons. Strawberries account for about 70% of all chloropicrin use. It is applied through drip irrigation systems, or injected into the soil. Treated soil is often covered with plastic tarps as part of the fumigation application. Tarps, depending on the material, can reduce the likelihood of chloropicrin exposure to people living and working near treated fields.

What are the Current Controls for Chloropicrin?
Under state law, chloropicrin is a restricted material and requires a permit from the county agricultural commissioner (CAC) before it can be used. The permitting process requires CAC
staff to review the proposed site of application and, when necessary, require specific use restrictions to protect nearby areas such as schools, businesses, and homes.

U.S. EPA has also completed a risk assessment of chloropicrin. This risk assessment ultimately resulted in a number of new health-protective measures on the labels. DPR reviewed the new measures, and believes that further controls are still needed.

What are the Control Measures DPR is Proposing?

- **Buffer zones** – A buffer zone is an area that surrounds a field that has been treated with a pesticide. The buffer zone is untreated, and allows airborne pesticide residues to disperse before reaching bystanders, occupied structures, or sensitive environmental areas. Certain activities are restricted in the buffer zone for a specified period of time to protect human health and safety from adverse effects associated with a pesticide application. Only fumigation activities and transit are allowed in the buffer zone. DPR has developed buffer zone distances for chloropicrin that are often larger than the zones required by the U.S. EPA.

- **Buffer zone credits** – EPA allows the buffer zones listed on the labels to be reduced if certain conditions are met during the fumigation, such as using certain tarps, applying water over fumigated fields, or if the field is of a certain soil type. EPA believes these measures are effective in reducing fumigant emissions after treatment. DPR reviewed the data and is only allowing buffer zone credits for the use of certain tarps.

- **Minimum buffer zones** – Current labels specify a minimum buffer zone of 25 feet. DPR proposes minimum buffer zones of at least 60 feet for all applications where tarps are not used, or when a tarp other than one of the highly effective tarps is used.

- **Acreage limits** – Current labels allow applications on up to 160 acres. DPR is proposing a 40 acre limit on field size.

- **Overlapping buffer zones** – Current labels prohibit applications where buffer zones will overlap unless the applications are made at least 12 hours apart. DPR is proposing additional restrictions when buffer zones overlap and applications are made between 12 and 36 hours apart.

- **Emergency preparedness and response** – Current labels require that homes and businesses within a certain distance of treated fields be either notified that a fumigation will occur, or that the fumigant applicator conducts monitoring a minimum of eight times during the 48 hours the buffer zone is in effect. Notification is required to be in English only. DPR proposes notification should also be made in Spanish. The monitoring requirements on the label provide minimal guidance as to where to monitor, and only require monitoring at one location. DPR proposes more specific guidance as to where monitoring should be done, and proposes at least two locations be monitored.

- **Notice of intent requirements** – DPR proposes that growers provide the CAC details of the upcoming fumigation at least 48 hours before the scheduled application. Current regulation requires a 24-hour notice.
• **Tarp cutting** – Current labels prohibit tarps to be cut for at least 5 days after the end of the application. For highly effective tarps, DPR proposes that tarp cutting be prohibited until a minimum of 9 days after application.

**Where Can I Read and Comment on the Proposed Control Measures?**
You can view and download the proposed control measures on DPR’s website at [http://www.cdpr.ca.gov/docs/whs/chloropicrin.htm](http://www.cdpr.ca.gov/docs/whs/chloropicrin.htm).

Anyone may send written comments on the proposed control measures. Comments should be submitted by July 31, 2013, by fax to (916) 445-4280, by e-mail to loconnell@cdpr.ca.gov or by mail to:

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