



Chloropicrin Mitigation

**California Department of Pesticide
Regulation
Worker Health and Safety Branch
Human Health Mitigation Program**



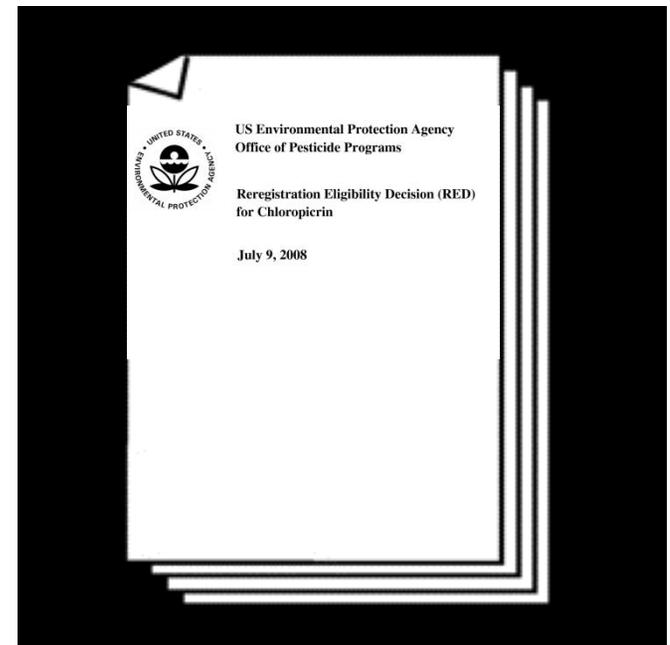
Overview

- Background
- Chloropicrin Use Patterns
- Increasing Use of Chloropicrin
- Discussions with CAC Staff
- Mitigation Concepts Under Consideration
- What's Next

Background

U.S. EPA

- Completed risk assessment in 2006.
- Published RED in 2008.



Background

U.S. EPA

- Using a phased-in approach to ensure mitigation measures required for re-registration are incorporated.
- Phase I product labels took effect in 2011.
- Phase II labels took effect December 1, 2012.





Background

U.S. EPA

- Phase I included use limitations, GAP's, FMP, handler training requirement, respiratory protection and stop work triggers for handlers.
- Phase II included certified applicator training requirements; acreage limitations; buffer zone distances, credits, and posting requirements; and emergency preparedness and response requirements.



Background

DPR

- In 2010, DPR completed risk assessment for chloropicrin for residents and bystanders.
- Risk Management Directive set regulatory target level for acute exposure: 73 ppb averaged over 8 hours, consistent with USEPA's target level.
- WHS directed to develop mitigation measures to protect residents and bystanders from acute exposure.



Background

DPR

- Designated a TAC in 2011.
- Convened TAC workgroup, and met with workgroup in April and July 2011, July 2012, and March 2013 to discuss mitigation.

Chloropicrin Use Patterns

- Primarily used for pre-plant soil fumigation for strawberries, nurseries, raspberries, peppers, tomatoes, and melons.
- Strawberries account for about 70% of all use.



CA Strawberry Production

- More than 80% of production for USA.
- Grown on ~ 40,000 acres.



Chloropicrin Use Patterns

COUNTY	AVERAGE POUNDS OF CHLOROPICRIN	PERCENT AVERAGE TOTAL ANNUAL USE
Monterey	1,143,877	20.3
Ventura	1,157,825	20.6
Santa Barbara	507,594	9.0
Santa Cruz	418,513	7.4
Siskiyou	246,746	4.4
TOTAL	3,474,554	~62%

Proposed Mitigation Concepts Under Consideration

- Buffer zone distances
- Review of label buffer zone credits
- Maximum acreage and field separation
- Tarp cutting interval
- Tree hole restrictions
- Additional restrictions for emergency preparedness and response measures.



What's Next

- DPR has issued interim recommended permit conditions to county agricultural commissioners
- Scientific peer review for the technical memo dealing with buffer zone development
- Once the mitigation proposal is completed and sent to interested parties, DPR will meet with:
 - Toxic air contaminant workgroup (state agencies), US EPA
 - Agricultural commissioners
 - Registrants
 - Growers – regional meetings
 - Environmental, worker advocates – regional meetings
- Respond to comments and scientific peer review
- Implement mitigation measures