

# MINIMAL EXPOSURE PESTICIDES

Imperial County Agricultural Commissioner's Office



# PURPOSE OF PRESENTATION

- Review of requirements from Title 3 of the California Code of Regulations (3CCR) sections 6790 to 6793 regarding minimal exposure pesticides (MEP's).
- What types of pesticides are covered by the regulations.
  - Conditions of use
- What is required of employers that have employees that handle MEP's.
  - Exemptions
  - Respirators

Division 6. Pesticides and Pest Control Operations Chapter 3. Pest Control Operations Subchapter 3. Pesticide Worker Safety Article 5. Minimal Exposure Pesticides

#### 6790. Minimal Exposure Pesticides.

This article applies to the following:

(a) Bromoxynil (Buctril, Bronate)

(b) Folpet

(c) Oxydemeton-methyl (Metasystox-R)

(d) Propargite (Omite, Omite CR, Comite)

NOTE: Authority cited: Sections 11456 and 12981, Food and Agricultural Code.

Reference: Sections 12980 and 12981, Food and Agricultural Code.

# 3CCR §6790

- Employees that handle any pesticides with the following active ingredients:
  - 1. Bromoxynil
  - 2. Folpet\*
  - 3. Oxydemeton-methyl
  - 4. Propargite

\* Folpet in paints, coatings, or caulking compounds are exempted by 3CCR 6791.

## EXAMPLES OF MEPS



#### Propargite











### WHY DO THESE REGULATIONS EXIST?

- These pesticides have been found to cause health issues that you would not notice right away.
- Preventing exposure is the best way to prevent these health effects.
- For example propargite can cause: skin & eye pain, negative effects in pregnant women and their unborn child, and cancer if exposed for long periods.





#### 3CCR §6792. CONDITIONS OF USE

(a) Applications of oxydemeton-methyl to ornamental landscape trees and shrubs shall be made by trunk injection or soil injection methods only;

(b) Oxydemeton-methyl shall not be applied within a greenhouse; and

(c) Propargite <u>shall not</u> be applied within a greenhouse.

# 3CCR 6793. MEP SAFETY USE REQUIREMENTS

- (a) Change area (3CCR §6732)
- (b) Decontamination facilities (3CCR §6734)
- (c) Coveralls required
- (d) Full-body, chemical-resistant protective clothing available at each use site (3CCR §6738.1(g))
  - Exemptions may apply
- (e) May require the use of a respirator
- (f) Used PPE cleaned or discarded at end of day



#### 3CCR §6000. DEFINITIONS.

Code defines the following:

"**Chemical resistant**" means a material that allows no measurable movement of the pesticide through it during use.

Dupont released a bulletin in 2016 with information regarding their product line that meet the requirements for "chemical-resistant."



#### **California Regulations**

Garments made of Tyvek<sup>\*</sup> and Tychem<sup>\*</sup> meet the agricultural worker protective clothing requirements in the state of California.

- **Tyvek**° may be utilized where the California regulations require a "**coverall**."
- Tychem<sup>°</sup> garments meet the requirements for "chemical-resistant" clothing.

https://www.dupont.com/content/dam/dupont/amer/us/en/personalprotection/public/documents/en/Agricultural\_Protective\_Clothing\_Tech\_Bulletin.pdf

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# CHEMICAL RESISTANT?

 "This protective clothing must cover torso, head, arms and legs. Clothing made of rubber, neoprene, polyethylene or similar materials are required to meet this level of protection. The desire for disposable or limited use clothing that meets this more stringent chemical-resistant requirement caused DPR to evaluate specialty fabrics that *might meet* this requirement. So far, three acceptable materials have been found: 1) Tyvek (spun bonded olefin) laminated to either Saranexor polyethylene; 2) polypropylene laminated with polyethylene; and 3)Encase II"



### HOW TO BE CHEMICAL SPECIFIC

#### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING / AVISO

Causes substantial but temporary eye injury. Wear protective eyewear such as goggles, face shield, or safety glasses. Harmful if swallowed, absorbed through skin, or inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE):

Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for category G on EPA chemical resistant category selection chart.

Applicators and other handlers must wear a long-sleeved shirt and long pants, chemical-resistant gloves such as barrier laminate or Viton gloves, a chemical-resistant apron when cleaning equipment, mixing, or loading, protective eyewear, chemical-resistant footwear and chemical-resistant headgear for overhead exposure.

#### **EPA Chemical Resistance Category Selection Chart**

For use when PPE section on pesticide label lists a chemical resistance category

Selection Category Listed on Pesticide Label			Туре	of Personal	Protective N	Aaterial		
	Barrier Laminate	Butyl Rubber > or = 14 mils	<b>Nitrile</b> <b>Rubber</b> > or = 14 mils	<b>Neoprene</b> <b>Rubber</b> > or = 14 mils	<b>Natural</b> <b>Rubber*</b> > or = 14 mils	Polyethylene	Polyvinyl chloride (PVC) > or = 14 mils	Viton > or = 14 mils
A (dry and water-based formulations)	high	high	high	high	high	high	high	high
В	high	high	slight	slight	none	slight	slight	slight
С	high	high	high	high	moderate	moderate	high	high
D	high	high	moderate	moderate	none	none	none	slight
E	high	slight	high	high	slight	none	moderate	high
F	high	high	high	moderate	slight	none	slight	high
G	high	slight	slight	slight	none	none	none	high
H	high	slight	slight	slight	none	none	none	high

\* includes natural rubber blends and laminates

HIGH: Highly chemical-resistant. Clean or replace PPE at end of each day's work period. Rinse off pesticides at rest breaks.

**MODERATE:** Moderately chemical-resistant. Clean or replace PPE within an hour or two of contact.

SLIGHT: Slightly chemical-resistant. Clean or replace PPE within 10 minutes of contact.

NONE: No chemical-resistance. Do not wear this type of material as PPE when contact is possible.



### SUIT EXEMPTIONS

# • EVEN IF EXEMPTIONS ARE USED, A CHEMICAL RESISTANT SUIT MUST BE PRESENT AT THE WORK SITE!

#### CHEMICAL RESISTANT SUITS IN HIGH TEMPERATURES

If a suit must be worn and ambient temperatures exceed 80° during daylight or 85° during night then the handler must:

-use a cooled chem resistant suit or engineering controls to reduce temperatures to the above temperatures



# FIELD POSTING

- When applying a MEP to a field through an irrigation system you must post signs around the field.
- Signs must be at usual points of entry to treated area and if there are no usual points, at the corners of the treated field.
- If field is adjacent to an unfenced public right-of-way then signs must be at intervals not exceeding 600 feet along the field's border with the right-of-way
- Signs must contain the following:

(1) An octagon stop sign symbol at least eight inches in diameter containing the word "STOP" in English;

(2) The words "KEEP OUT" and "NO ENTRE" above the symbol and the words "PESTICIDES IN IRRIGATION WATER" and "PESTICIDAS EN AGUA de RIEGO" below the symbol;

(3) All letters shall be at least 2-1/2 inches tall; and

(4) All letters and the symbol shall be of a color which sharply contrasts with their immediate background.



### MEP RESPIRATORS

- Only required if :
  - You are mix/loading dry formulations (water-soluble packets exempt)
  - Applying without a boom downward and below or not injecting/ soil incorporating the pesticide.

	OSURE PESTICIDE RESPIRATOR REQUIREMENTS
Pesticides	Minimum Required Respirator
Buctril, Maestro	Particulate filter (R- or P-rated)
Metasystox-R (MSR), Inject-A-Cide	Organic vapor cartridge with R- or P-rated particulate filter
Omite, Comite	Organic vapor cartridge with R- or P-rated particulate filter

### NIOSH RESPIRATORS



Filtering face-piece respirators

• dust mask



Elastomeric respirators • Full-face • Half-face

### TITLE 3 CALIFORNIA CODE OF REGULATIONS 6739(a-s)

#### a) General Requirements

- b) Voluntary Respirator Provisions
- c) Selection of Respirator
- d) Medical Evaluation
- e) Fit test
- f) Face piece seal protection
- g) Procedures for (IDLH) Atmospheres
- h) Cleaning and Disinfecting
- i) Storage of Emergency Respirators
- j) Inspections and Repair

- k) Breathing Air Quality and Use
- I) Id. of Filters, Cartridges and Canisters
- m) Trainings and Information
- n) Program Evaluation
- o) End of Service Life
- p) Record Keeping
- q) Medical Evaluations Questionnaire
- r) Voluntary Respirator Provision Info
- s) Medical Recommendation Form

3CCR 6739

# WRITTEN RESPIRATORY PROTECTION PROGRAM

- Assign a Respirator Program Administrator (RPA) definition 3CCR section 6000
- A document with specific procedures for:
  - Selecting respirators
  - Cleaning, sanitizing, storing, inspecting, repairing, discarding and maintaining the respiratory protection eauipment.



Written Respiratory Program Includes:

- Medical evaluations
- Annual Fit tests
- Annual Respirator Training records
- Why is a respirator necessary, capabilities & limitations

The written respiratory program needs to be evaluated on a yearly basis to assess if the program is effective. Talk to employees and document consultations.

### MEDICAL EVALUATION 6739 (d)

- Before the employee is assigned to wear a respirator
- Identify a Physician or Licensed Health Care Professional (PLHCP) to determine the employee's physical and mental ability to use a respirator.
  - Have the name and address of the PHLCP on file.
- A confidential questionnaire must be completed by the employee and evaluated by the (PLHCP).
  - A direct examination of the employee may also be done instead of the questionnaire.
- Once the evaluation is completed the PHCLP will sign a Medical Recommendation Form to the employer.
  - A copy needs to be provided to the employee as well.
- Medical evaluations are required to be conducted once, however the employer shall provide additional evaluations if work conditions or the employee's health changes.
  - Employer is responsible for the cost of the evaluation.

#### **Appendix Three**

**Medical Recommendation Form** 

Date \_\_\_\_\_\_ Patient's name

At this time there (are)/(are not) medical contraindications to the employee named above wearing a respirator while working in potential pesticide exposure environments. The patient (does)/(does not) require further medical evaluation at this time. Any restrictions to wearing a respirator or to the type of respiratory protection are given below.

I have provided the above-named patient with a	a copy of this form.
Physician	Date

- After passing the Medical Evaluation the employer must provide a fit test for each employee using a tight fitting respirator.
- Must be provided before the initial use of a respirator and on a yearly basis thereafter.
- Required information:
  - Name or identification of employee tested
  - o Date and type of test
  - o Specific make, model, style, and size of respirator tested
  - o <u>Test results</u>

# FIT TEST RECORDS

#### **Appendix One**

#### Respirator Fit Test Record for ORGANIZATION

ID Number:	Date of Test:	
Employee Last Name:		
Employee First Name:		
Age:	Sex:	
Trainer:		
Respirator Name:	Size/Type:	
Tests Used:		

(This form provides a basic example of the information that may be recorded on a fit test record. Other data recording methods that record the same basic information are acceptable.)

	<u>Appendix 2</u> Respirator Fit Test Record		
Organization Name:			
Employee Name:			
Employee ID Number:			
Respirator Brand:	Respirator Size:		
Respirator Type (check one):			
Half Face Full Face	Filtering Face-piece SCBA	PAPR	
Fit Test Used:			
Pass or Fail (check one):			
Pass Fail			
Notes:			
Test Operator Name:			
Test Operator Signature: (The "Test Operator" is the person administering	g the fit test to the employee.)		
Employee Signature:			
Employee orginature.			
Test Date:			

#### **RESPIRATORS INSPECTION AND STORAGE**

Procedures on how routine-use respirators are inspected before each use and during cleaning.

Procedures on how respirators are stored in a manner that protects them from the elements and prevents the face-piece and exhalation valve from deformation.

Instructions for Emergency-use respirators to be inspected monthly according to routineuse criteria and or manufactures recommendations.



### SUMMARY

- Change area, decontamination facilities, coverall, full-body chemical resistant suit (available at use site) for all MEP use.
- Applicators in closed cabs and/or with boom below behind do not need to wear chem-resistant suit
- Mix/loaders using closed systems must wear chem-resistant apron, protective eyewear, chem-resistant gloves, and chem-resistant boots
- PPE chemical resistance is determined by the chemical (check the label and contact your PPE supplier)
- Posting required for MEP chemigations
- Respirators required if loading a dust formulation or applying without boom below behind

# QUESTIONS?



# THANK YOU

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