



GILA RIVER INDIAN COMMUNITY DEPARTMENT OF ENVIRONMENTAL QUALITY

PESTICIDE
CONTROL OFFICE

Community
Applicator
Certification
Training



Image Credit: National Pesticide Information Center, OSU

Module 7: Personal Protective Equipment (PPE)



Personal Protective Equipment

This Module Will Help You:

- Understand PPE selection
- Understand PPE care, storage, and disposal



Image Credit: University of Nebraska,
Institute of Agriculture and Natural Resources



Personal Protective Equipment





Required PPE is Determined by:

The Label !

- The toxicity of the pesticide
- The formulation of the pesticide
- The activity you are performing
 - Measuring, mixing and loading
 - Applying
 - Maintenance operations

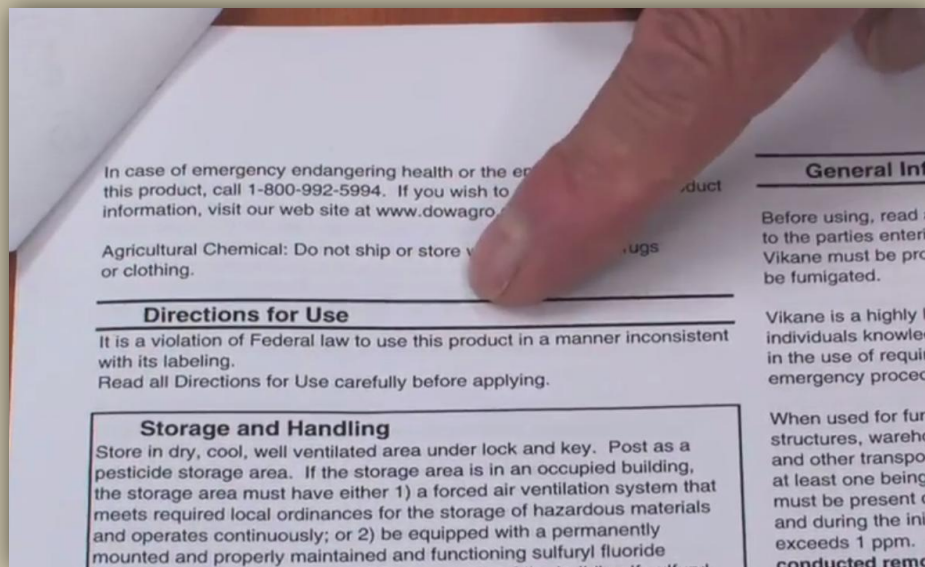


Image Credit: University of Florida, Entomology



Read the Label

vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: Long-sleeved shirt and long pants, protective footwear plus socks, and protective eyewear. Discard clothing and other materials that have been heavily contaminated with this product's concentrate. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put

- Follow directions for PPE
 - Handlers
 - Applicators
 - Early entry workers
- Minimum requirements are given – can wear more



Chemical Resistant Material

- Read the label
 - What clothing is specifically required

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 F on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, Category F, such as barrier laminate, butyl rubber, nitrile rubber, or Viton \geq 14 mils
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT reuse them. Follow manufacturer's instructions for cleaning/



Chemical Resistant Clothing

- Prevents most chemicals from reaching the skin
- PVC plastic, rubber, non-woven coated fabrics



Image Credit: University of Nebraska,
Institute of Agriculture and Natural Resources



Chemical Resistant Materials

Watch for Signs of Wearing and Degrading

- Color change
- Spongy
- Swollen
- Jelly-like
- Cracked
- Brittle

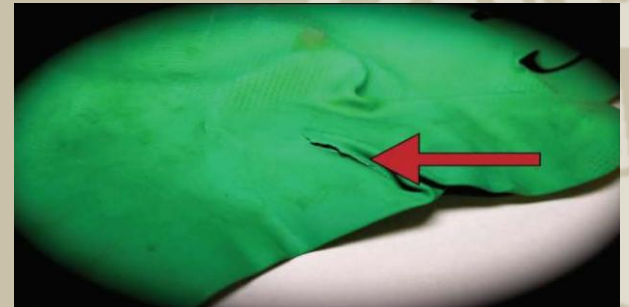
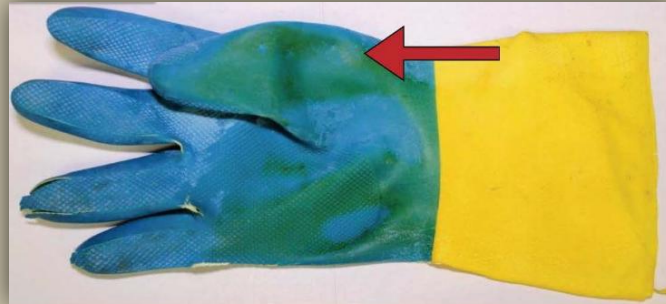


Image Credits: University of Michigan



Cotton, Denim, and Leather

NOT Recommended for Most Pesticide Applications



Image Credit: MS Office Clipart



Personal Protective Equipment

- Minimum:
 - Long-sleeved shirt
 - Long trousers or coveralls
 - Gloves
 - Shoes plus socks

Protect Yourself!



Image Credit: University of Nevada,
Cooperative Extension



Coveralls

- Wear loosely over clothing
- Zippers should be covered
- Two-piece: top should extend well below the waist and remain untucked





Chemical Resistant Suits



Image Credit: University of Maryland
Department of Entomology

- Offers the most protection
- Wears out with chemical contact over time
- Made of rubber or plastic
- May be too warm
- Drink plenty of water!
- Take frequent breaks!





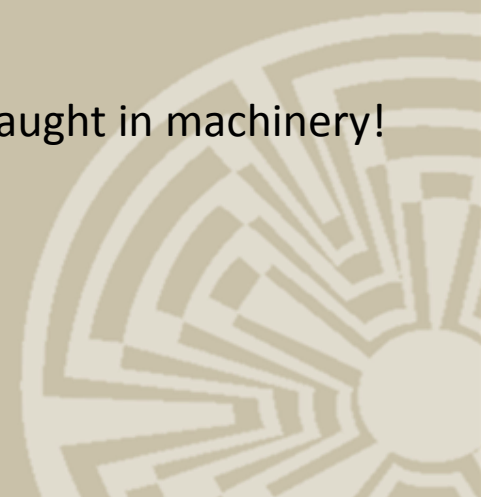
Chemical Resistant Aprons



Image Credit: GRIC PCO

- Use when:
 - Mixing and loading
 - Cleaning equipment
- From neck to knees

WARNING: aprons can get caught in machinery!





Use Gloves

- Especially during mixing & loading
- Unlined and waterproof
- Check for holes
- If spraying overhead, tuck sleeves inside gloves and fold the cuffs up

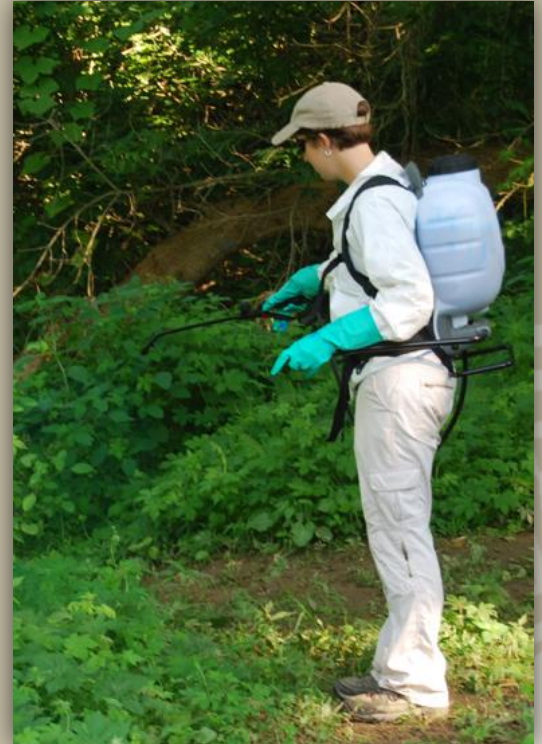


Image Credit: State of Delaware



Check the Label

Determine if You Need Specific Gloves / What Kind

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 F on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, Category F, such as barrier laminate, butyl rubber, nitrile rubber, or Viton ≥ 14 mils
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT reuse them. Follow manufacturer's instructions for cleaning/



Types of Chemical Resistant Gloves

Butyl Rubber



Image Credit: Gemplers

Viton



Image Credit: Gemplers



Types of Chemical Resistant Gloves

Nitrile Rubber



Image Credit: Gemplers

Neoprene



Image Credit: Gemplers



Types of Chemical Resistant Gloves

Barrier Laminate



Image Credit: Gemplers

Many gloves look alike, read the markings



Image Credit: Gemplers



What's Wrong With This Picture



Image Credit: gloves.teetup.info

Lining can absorb pesticide!





What's Wrong With This Picture



Image Credit: Washington State University

Wear long-sleeved shirts!





Footwear

- No sandals!
- Consider wearing unlined, rubber boots... even if not required
- Hang pant legs outside the boots!



Image Credit: Gemplers





Hats and Hoods



Image Credit: University of Nebraska,
Institute of Agriculture and Natural Resources

- Liquid-proof with a wide brim
- No absorbent materials!
- Chemical-resistant hoods on jackets





Protect Your Eyes

When Mixing Concentrates or Handling Dusts

Eyewear should have shields on all sides!



Image Credit: Gemplers



Image Credit: Gemplers



If Goggles are Required...

So is Access to an Eyewash Dispenser

A portable eyewash is recommended for people in the field without access to a stationary eyewash

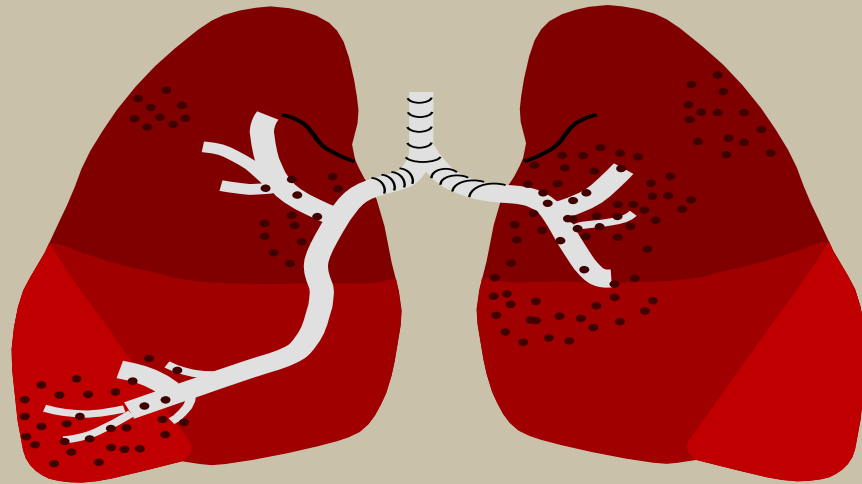


Image Credit: Gemplers



Respirators

Prevent pesticide exposure
through the respiratory system





Respirators





When Should a Respirator be Used?

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 B on an EPA chemical-resistance category selection chart.

Mixers, loaders, and applicators and other handlers must wear:

Coveralls over long-sleeved shirt and long pants.

Chemical-resistant gloves, such as barrier laminate or butyl rubber.

Chemical-resistant footwear plus socks.

Protective eyewear.

Chemical-resistant headgear for overhead exposure.

Chemical-resistant apron when cleaning equipment, mixing, or loading.

A respirator with an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE prefilter.

- When the label requires it
- When exposed to spray mist
- When working in confined spaces
- When using dusts, gases, vapors, or fumigants



Chemical Cartridge and Canister Respirators

- Both half-face mask and full-face mask styles
- Get cartridges that are right for the chemicals you are using!



Image Credit: Gemplers



Image Credit: Gemplers



Always Select Equipment Approved by NIOSH

- National Institute of Occupational Safety and Health (NIOSH)
- Make sure the cartridge or filter is rated for the pesticide you are using
- Read the label



Image Credit: Gemplers



Fit Test Your Respirator

Check with GRIC's Occupational Safety & Health Office for requirements.

(520) 562-4120





Use and Care of Respirators

- Fit-check and make sure it works before every use
- MUST have tight seal!
- Make sure valves are in proper working order
- Replace filters
 - Taste, smell, breathe
 - Tribal regulations
 - Manufacturer recommendations



Image Credit: University of Nebraska,
Institute of Agriculture and Natural Resources



Pesticide Residues on Clothing

From Brushing up Against...

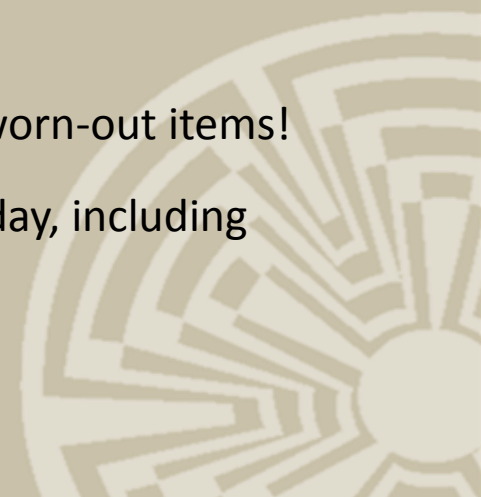


Image Credit: The Ohio State University

- Plants
- Equipment
- Pesticides

Discard disposables and worn-out items!

Wash at the end of each day, including gloves and all PPE





Decontaminate Clothing Daily



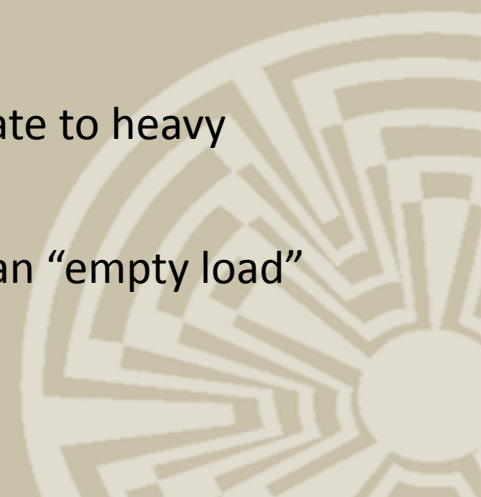


Laundering Pesticide Contaminated Clothing



Image Credit: North Dakota State University

- Launder pesticide clothing separately from other clothes
- Wash contaminated clothing in hot water with detergent
- Use 2 cycles for moderate to heavy contamination
- Rinse the washer with an “empty load”





Line Dry Clothing if Possible



Image Credit: MS Office Clipart





Keep all PPE separate from pesticides in storage!!



Image Credit: GRIC PCO





PPE Use

- Wear adequate PPE
 - When mixing
 - When applying
 - When doing equipment maintenance



Image Credit: Virginia Tech, PesticidePics.org



PPE Use

- If a nozzle becomes plugged during an application...
 - Do not remove your PPE!
 - Use an old toothbrush to clean the nozzle. Never try to blow it out with your mouth





Acknowledgements

Adapted with permission from the Washington State University
Urban IPM and Pesticide Safety Education Program
for use by the

GILA RIVER INDIAN COMMUNITY
Department of Environmental Quality
Pesticide Control Office

PO Box 2139 • 45 S. Church Street • Sacaton, AZ 85147

Office (520) 562-2234 • Fax (520) 562-3198

Email: GRIC.Pesticide.Office@GRIC.nsn.us

Web: www.GRICDEQ.org

