

Proper Handling of Pesticide Containers

Victor Gutierrez

Extension Assistant, Texas Water Resources Institute

Kevin Wagner

Deputy Director, Texas Water Resources Institute
The Texas A&M University System

To keep workers safe, protect drinking water, and preserve environmental health, agricultural producers must clean and dispose of used chemical containers properly.

If you do not handle the containers correctly, the chemicals left in the container (*residue*) can leach into the soil and contaminate shallow water wells. It can also leak into canals or drainage ditches and flow into nearby creeks and rivers, polluting downstream fisheries.

The first place to check for disposal instructions is the pesticide label. Because these labels are legal documents under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), you must always follow their directions.



Proper handling of pesticide containers can help protect people and the environment.

Below are tips and links to websites that provide proper instructions on rinsing, recycling, or disposing of chemical containers that will help protect your local water quality.

Rinsing chemical containers

There are two ways to clean a chemical container legally. For both methods, the first step is to allow the pesticide to drip-drain from the container for at least 30 seconds. Then:

- 1. Triple-rinse the container immediately after emptying it. Put on the protective equipment required by the label.
 - a. Fill the container ¼ full with the diluting agent (*diluent*) listed on the safety data sheet (formerly material safety data sheet, or MSDS).
 - b. Replace the lid or plug the opening of the container.
 - c. Rotate the container, making sure that you rinse all surfaces.
 - d. Turn the container upside down.
 - e. Add the liquid rinsed from the container (*rinsate*) to the spray tank, allowing 30 seconds for the rinsate to drain.
 - f. Repeat procedure two more times.
- 2. Pressure-rinse the container:
 - a. Hold the container so that its opening can allow the rinsate to drain into the spray tank.

- Force the pressure nozzle (available online at Gemplers.com or Tankjet. com) through the lower part of container.
- c. Turn the nozzle inside the container to make sure that all sides are rinsed for at least 30 seconds.
- d. Allow the rinsate to drain into the spray tank.
- After rinsing the container properly, puncture its top and bottom to prevent reuse, and crush it flat.
- Store the container in a dry area out of the rain until you can recycle or dispose of it properly.
- Do not wash containers that can produce hydrogen cyanide gas or have held aluminum, magnesium, or zinc phosphides. Instead, fill them with dry soil or sand and dispose of them through a licensed waste disposal contractor.
- For more information:
 - Proper Rinsing, USAg Recycling—http:// www.usagrecycling.com/proper-rinsing. html
 - Container Cleaning, Crop Protection Association—http://www.nufarm.com/ Assets/14142/1/Containercleaning1-4-10. pdf
 - 50 Ways Farmers Can Protect Their Groundwater: Rinse Chemical Containers Thoroughly—http://www.thisland. illinois.edu/50ways/50ways_30.html

Disposing of containers

- Cross out but do not remove or destroy the original product label on the container.
 Employees at the landfill or recycling center may need to see what the container held.
- Offer the container for recycling or dispose of it in a licensed sanitary landfill. Pesticide containers may be recycled only through approved recycling programs such as USAg Recycling, not household programs.
- Collection sites accept only dry, properly rinsed containers.
- For more information:
 - Container Preparation, USAg Recycling—http://www.usagrecycling.com/preparation.html
 - How to Dispose of Empty Hazardous Materials Containers, University of California–San Diego—http://blink. ucsd.edu/safety/research-lab/hazardous-waste/empty-containers.html#2.-Confirm-the-container-is-rea

Acknowledgments

Other contributors to the development of this publication were Juan Anciso, Brad Cowan, Nikki Dictson, Jaime Flores, Lucas Gregory, Mark Matocha, Enrique Perez, Matthew Rodriguez, and Ronnie Zamora.

The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Texas A&M AgriLife Extension Service is implied.

Texas A&M AgriLife Extension Service

AgriLifeExtension.tamu.edu

More Extension publications can be found at AgriLifeBookstore.org

Texas A&M AgriLife Extension provides equal opportunities in its programs and employment to all persons, regardless of race, color, sex, religion, national origin, disability, age, genetic information, veteran status, sexual orientation, or gender identity.

 $The Texas \, A\&M \, University \, System, \, U.S. \, Department \, of \, Agriculture, \, and \, the \, County \, Commissioners \, Courts \, of \, Texas \, Cooperating.$