

Disposal of Old Pesticide Containers

Guidance Document 4

The following are general recommended procedures for the disposal of pesticide containers at incident and property transfer sites. They may be modified on a site-specific basis with approval from Minnesota Department of Agriculture (MDA) staff. This guidance is intended for experienced environmental professionals and is not comprehensive. For additional information contact the MDA Incident Response Unit or an environmental consulting firm with experience at agriculture chemical incidents in Minnesota.

If pesticide containers were left on a permeable surface for any length of time, there is a good chance the area is contaminated. Contact the MDA for guidance on proper remediation procedures. Pesticide release incidents must be reported by calling the Minnesota 24-hour duty officer at 1-800-422-0798. MDA guidance document [GD1 Guidance for Reporting Agricultural Chemical Incidents](#) outlines reporting requirements in detail.

I. Health and Safety Precautions

Handling pesticides and their residues can be hazardous. All containers, their contents and associated residues must be managed in an environmentally safe manner and in accordance with all applicable local, state and federal health and safety rules, laws and standards. All containers should be approached as if they contain pesticides until it is proven otherwise by actual inspection. Only properly trained, equipped and supervised personnel should perform these tasks.

II. Disposal Options

In general, pesticide containers, container residues and rinsates that may contain hazardous waste as defined under the Minnesota Hazardous Waste Rules Chapter 7045 (Minn. Hazardous Waste Rules) and are from products not currently registered for use in Minnesota, must be managed and disposed of in accordance with the Minn. Hazardous Waste Rules. A firm with experience in hazardous waste management or the Minnesota Pollution Control Agency (MPCA) should be contacted for additional information on the hazardous waste rules and disposal options.

Frequently it is less expensive to dispose of containers and their contents as hazardous waste instead of cleaning the containers, sampling and then arranging for the disposal of the rinsate and residue. The MDA recommends obtaining a written estimate of costs for all disposal options prior to hiring a disposal contractor.

Plastic and metal pesticide containers that contained non-hazardous or currently registered products should be disposed of as outlined in the following sequence:

1. Is (was) the container a pesticide container?

- a. No or don't know: Follow MPCA guidance for disposal of empty non-pesticide containers and the Minn. Hazardous Waste Rules for disposal of any product or residue. A MPCA container disposal guidance document is located at <https://www.pca.state.mn.us/sites/default/files/w-hw4-16.pdf>
- b. Yes; go to 2.

2. Is the container visibly clean and free of any residue?

- a. Yes; dispose of the container by recycling* or as solid waste in a permitted landfill.
- b. No or not sure; go to 3.

3. Has the container been completely and repeatedly flushed by clean flowing water through natural processes?

- a. Yes; clean any soil, sediment or liquids from the container and dispose of the container by recycling* or as solid waste in a permitted landfill. If the soil or sediment reasonably may be contaminated ensure that it does not become a source for spreading contamination. This may require that the soil be contained, covered and stored in a safe location.

Contaminated soil or residues must be disposed of with the approval of the MDA Incident Response Unit.

- b. No or don't know; go to 4.

4. Dispose of the remaining containers as follows:

- a. Pour out and collect any liquid in the container. Dispose of the liquid as rinsate. Segregate the rinsate according to labeled crop (i.e., -corn, soybeans, etc.) or similar waste streams.
- b. Clean any soil from both the inside and outside of the container. Manage the soil as described under item 3a above.
- c. Properly rinse each container following the procedures described in the Pesticide Containers: Management and Disposal fact sheet <https://www.mda.state.mn.us/sites/default/files/2019-11/pestcontainermgmtdisp.pdf>. Segregate the rinsate as in 4.a. above.
- d. Collect a sample from each batch of rinsate for laboratory analysis. Generally, samples should be analyzed for the MDA analytical List 1 Pesticides and other appropriate pesticides of concern based on the label on the container or probable contents of the container, historical pesticide storage and use, and other contaminants at the site.
- e. For currently registered products, dispose of the rinsate as directed by the current product label, (generally in a tank mix of compatible products) or in accordance with an MDA approved request for land application. All other rinsate must be managed with MDA staff approval or according to Minn. Hazardous Waste Rules.
- f. Dispose of the container by recycling* or as solid waste in a permitted landfill.

*Only recycle containers through a program designed for pesticide containers. To recycle containers, they must be visibly clean and free of any residue on the inside and outside. Existing pesticide container recycling programs focus on recycling plastic (#2HDPE) containers. Metal containers that have weathered to the extent that holes have developed in the containers have no salvage/recycling value. These containers should be disposed of at a permitted landfill.

For container recycling collection information contact the MDA Empty Pesticide Container Recycling Program at 651-201-6587.