



Pesticide Spills: Prevention and Management

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Introduction

Spilling a pesticide, whether it is a small or large amount, is not an ideal situation and can be difficult to clean up. A pesticide spill presents hazards to you and other people, animals, and the environment. Precautionary measures can be taken to minimize the risk of pesticide spills, and if a spill occurs, there are procedures for its management.

Spill Prevention

Safe and careful handling of pesticides will prevent most spills. Handling includes the use (mixing, loading, and applying), storage, and disposal of a pesticide product or its container. Anytime you work with pesticides, there is risk of an accidental spill. However, there are several ways to minimize this risk while handling pesticides:

- Use (mixing, loading, and applying) – Be especially careful when mixing and loading pesticides to avoid spilling pesticides on yourself or the surrounding area. Make sure pesticide containers are placed on flat, stable surfaces to prevent them from tipping and spilling after being opened. Also, be sure to close pesticide containers tightly after each use to prevent spills. Before applying pesticides, make sure your application equipment is intact and in proper working order to prevent leaks or spills. Always wear the proper personal protective equipment (PPE) recommended by the pesticide label when using any pesticide!
- Storage – Keep pesticides out of the reach of children, pets, and other animals. Store pesticides in their original containers with labels intact. Take an inventory of all pesticides in your storage area, and check containers for cracks, tears, or leaks. Do not stockpile pesticide products. Make sure your storage is located

away from flood prone areas and is temperature controlled.

- Disposal – Do not keep more pesticide products on hand than you can use in a season; this can lead to disposal issues. Do not leave empty pesticide containers unattended. Read the label of each product you use for instructions on how to properly dispose of excess pesticide or the container. In Virginia, the Department of Agriculture and Consumer Services, Office of Pesticide Services (VDACS-OPS) offers pesticide collection (vdacs.virginia.gov/pesticide-collection.shtml) and container recycling programs (vdacs.virginia.gov/pesticide-container-recycling.shtml).

Safe and careful transportation of pesticides can also help prevent spills. Be sure pesticide containers are intact (no leaks or cracks) before transporting them. Never transport pesticides in the passenger area of your vehicle (a truck bed with siderails and a tail rack is ideal). Secure all pesticide containers in a manner that protects them from being punctured or damaged. Be aware of weather conditions during transit, and keep pesticides protected from temperature extremes and moisture. Also, do not transport food or feed with pesticides, and be sure your vehicle is secure at all times.

Spill Management

If a spill occurs, there are several steps you can take to safely manage the situation. Pesticide spills require immediate attention. Do not leave a pesticide spill unattended as this increases the likelihood that it could harm people, animals, or the environment. Remember to remain calm, and seek help if you cannot clean up the spill yourself. The following steps, also known as the three C's (control, contain,

and clean up), will help you during a spill emergency.

Step 1: Control the Spill

Managing a pesticide spill requires swift action. There are four ways to take control of a spill:

- Protect yourself – Make sure you are wearing the proper PPE listed on the pesticide label before coming in contact with the spill. If you are unsure of the proper PPE or the chemical that has been spilled, do not risk your safety. Take extra precautions, and wear additional PPE.
- Stop the source of the spill – If a container or bag has tipped over, set it upright or position it so no more material can escape.
- Protect others and secure the area – Keep animals and people away from the spill by isolating or barricading the area.
- Stay at the site – Do not leave the area. Call for assistance if necessary.

If help is needed to manage a pesticide spill, contact VDACS-OPS. In an emergency, contact the Chemical Transportation Emergency Center (CHEMTREC), or the emergency contact listed on the label, to reach a trained professional who can provide advice on managing chemical emergencies. If requesting help from these sources, have the product label on hand.

Step 2: Contain the Spill

After the source of the spill is controlled, confine the spill to the smallest area possible. Make sure the material does not get into any bodies of water or drains. All spills that could endanger people or the environment must be reported to VDACS-OPS (please refer to the “When to Report a Pesticide Spill” section on pg. 3 for further information). Liquids can be contained with sand, pet litter, or other absorbent materials. Dry materials should be covered with plastic to prevent them from becoming airborne.

Step 3: Clean Up the Spill

Sweep up any absorbent material used to soak up a liquid pesticide, and place it into a heavy-duty plastic bag or container (fig. 1). If the spilled material is a dry pesticide, such as a powder or granule, try to sweep up the material for later use.

However, if the dry spill gets wet or becomes contaminated with too much debris, it must be discarded. Place the dry material into a heavy-duty plastic bag or container as you would liquid material.



Figure 1. An example of spill cleanup. Pet litter has been spread over a liquid pesticide spill and is being swept up for disposal.

Once you have thoroughly swept up the spilled pesticide, decontaminate the spill site. This does not mean to hose down the site with water. Instead, if the site where the pesticide was spilled is nonporous, such as sealed concrete, use detergent and just enough water to remove pesticide residues. Do not allow the wash solution to run off. Cover the wash solution with absorbent material, sweep up the material, and place it in your heavy-duty plastic bag or container. If the site where the pesticide was spilled is porous, such as soil, remove the contaminated surface area and dispose of it in your heavy-duty plastic bag or container. Always remember to read the label of any pesticide you purchase to see if it offers information on spill management.

It is also important to decontaminate any equipment or items that were contaminated by the spill. Use laundry detergent and hot water to clean PPE. Some items, such as the cleanup broom or any clothing, may need to be discarded if they were fully saturated.

Take the spill waste and any heavily contaminated items you have collected in your heavy-duty plastic bag or container to a licensed hazardous waste facility.

When finished, decontaminate yourself. Wash thoroughly with soap and water from head to toe!

When to Report a Pesticide Spill

Depending on the nature of the pesticide spill, some spills can be handled without additional assistance, and some may require further assistance from local and state officials. If a pesticide spill endangers any person, the general public, or the environment, you should call for help. In this case, you will also be required to report the spill to VDACS-OPS within 48 hours by calling (804) 371-6560. Within 10 days, you must also send a written report to VDACS-OPS via mail:

Field Operations
Office of Pesticide Services
Virginia Dept. of Agriculture & Consumer Services
P.O. Box 1163
Richmond, VA 23218

Your report must include the name(s) of the individual(s) involved in the incident; name(s) of the pesticide(s) involved; quantity of pesticide spilled and containment procedures used; time, date, and location of the incident; cleanup actions taken; and name and location of nearby water bodies that might have been contaminated during the incident. VDACS-OPS will also help you determine if further action is needed.

DIY Spill Kit

Keep items on hand for pesticide spill situations in a “spill kit.” A spill kit includes articles such as a cell phone, emergency contacts, PPE (chemical resistant gloves, goggles, Tyvek suit, etc.), absorbent materials like pet litter, a broom and dustpan, detergent, and heavy-duty plastic bags or containers. Conveniently, most of these supplies can be easily stored in a five-gallon bucket, which is also a helpful item to have in case of a spill.

Conclusion and Resources

Quick and proper spill management can protect you, others, and the environment from unintended harm. Even the smallest drips and spills should be cleaned up right away to protect people and animals from accidental pesticide exposure. For further information on prevention and management of

pesticide spills, please refer to the Pesticide Environmental Stewardship website (pesticidestewardship.org/spills/).



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2022

ENTO-518NP