

Hazardous Waste Factsheet

“Pesticides should always be stored in structurally sound, properly labeled, original containers. Structurally sound containers are your first defense against a spill or leak.”

Thurston County Public
Health and Social Services
Environmental Health Division

412 Lilly Rd. NE
Olympia, WA 98506-5132
Hazardous Waste Hotline:
360-867-2664

TDD Line: 360-867-2603

[http://www.co.thurston.wa.us.
health/ehhw/index.html](http://www.co.thurston.wa.us.health/ehhw/index.html)



Pesticide Storage, Mixing, and Loading

Businesses that choose to maintain an on-site inventory of pesticide products must be aware of conditions or circumstances in which those materials could compromise the health and safety of employees, customers, or the local community. Proper storage, mixing, and loading methods are essential for the responsible management of pesticide chemicals.

Storage

Pesticides should always be stored in structurally sound, properly labeled, original containers. Structurally sound containers are your first defense against a spill or leak. Mark each container with the purchase date and **keep a complete inventory of all products**. The Washington State Department of Labor and Industries and local fire departments require that an inventory of stored pesticides be kept in a separate location from the storage area. Further, the inventory should be updated upon any change in the types or amounts of stored products. Provide the local fire department with a copy of your current inventory and a map of your business site indicating the location of the storage area.

Use shelving constructed from an impervious non-reactive material. Unlike wood, an impervious material can be cleaned if a spill occurs. Shelves should be securely anchored and have a lip to keep the containers from sliding off in the event of an earthquake.

Store dry products above liquids to prevent wetting from spills. **Never store dry bagged materials under liquids**. Provide pallets to keep large drums or bags off the floor. This makes spill cleanup easier and protects your products from wet or flooded floors.

Keep pesticides separate to prevent cross-contamination. Herbicides, insecticides, and fungicides should be kept on separate shelves or areas.

Secondary Containment

Liquid pesticides can present a threat to soil, groundwater, and surface water if accidentally spilled. The Thurston County Nonpoint Source Pollution Ordinance (in Article VI of the Sanitary Code), in effect since 1993, requires that hazardous materials, including pesticides, be stored so that if a container leaks or ruptures the contents will not contaminate ground or surface water.

The best way to ensure this is to provide secondary containment for all containers of liquid products and wastes. For more specific information on requirements, please obtain the *Secondary Containment* fact sheet from Thurston County (see back page).

In addition, if your business meets the Washington State Department of Agriculture (WSDA) definition of a **“permanent storage facility,”** then it is important to contact WSDA for the specifics on its secondary containment regulations. A business qualifies as a permanent storage facility if liquid bulk pesticides in a single container or in aggregate quantities exceeding five hundred (500) U.S. gallons or dry bulk pesticide in undivided quantities in excess of two thousand (2,000) pounds is held in storage. For details on specific exemptions from the definition, please contact WSDA at the phone number listed at the end of this fact sheet.

If you do not qualify as a permanent storage facility, but plan to store large bulk tanks, provide a containment area large enough to confine 125 percent of the contents of the largest bulk container, plus the displaced volume of any other storage tanks in the area. Make sure that the containment is constructed with impermeable materials that are chemically resistant to the pesticides being stored.

A locked storage cabinet or building provides security, prevents unauthorized use of pesticides, and reduces the chance of accidental spills or theft. Provide signs or labels identifying the cabinet or building as a pesticide storage area. Areas in which pesticides labeled with the words “danger” and “poison” are stored are required by state law to be posted as pesticide storage areas. For further information, see the Thurston County fact sheet titled *Category I Pesticides and their Unrinsed Containers: Storage and Posting Requirements*, or contact the WSDA.

For information on other factors to consider when designing a storage facility, such as ventilation, temperature control, and worker safety, contact the Washington State Department of Labor and Industries or the Thurston County Cooperative Extension office. The phone numbers for these agencies are provided at the end of this fact sheet.

Mixing and Loading

Groundwater contamination can result from even small spills in the mixing and loading area. Small quantities spilled regularly in the same place can go unnoticed, but the chemicals can build up in the soil and eventually reach groundwater. Mixing and loading on an impermeable surface, such as coated or sealed concrete, will allow containment of most spilled pesticides. Spills should be cleaned up immediately and disposed of as a hazardous waste.

If you don't have an impermeable mixing and loading pad, you can minimize contamination by following these steps.

- Avoid mixing and loading pesticides near your well. One way to do this is to mix and load pesticides at the field to be sprayed using a nurse tank to transport water. Mixing should not be done in the same place continuously.
- Avoid mixing and loading on gravel driveways or other surfaces that allow spills to sink quickly through the soil. A clay surface is better than sand or gravel.
- Install a back-flow prevention device on the well or hydrants to prevent reverse flow of liquids into the water supply. Ask a plumber for more information if you have questions about installation.
- Never put the hose end inside the sprayer tank. Provide an air gap of at least six inches between the hose end and the top of the sprayer tank.
- Always supervise sprayer filling. For restricted-use pesticides, a trained and certified applicator must supervise operations.
- Consider a closed-handling system that transfers the pesticide directly from the original container to applicator equipment (through a hose, for example). Humans and the environment are never inadvertently exposed to the pesticide with this system.
- Use rinsate for mixing subsequent loads. Spray the rinsate according to label directions. Ideally, rinsate should be used on the current application.
- Keep a spill clean up kit handy. Spill kits and supplies can be purchased at most safety equipment stores.

Why is Thurston County Involved in Pesticide Storage, Mixing, and Loading?

Hazardous wastes, such as pesticides, solvents, paints, and oils can harm human health and contaminate the environment during their use, storage, and disposal. In Washington, the State Department of Ecology oversees large-quantity hazardous waste producers. Local county governments are responsible for overseeing the safe use and disposal of hazardous materials by homeowners and small businesses.

Since 1991 Thurston County's Health and Social Services Department has been providing education, hazardous waste collection, and technical assistance and compliance services to both small businesses and households. In 1999, the County began a pesticide user's assistance campaign. The program helps businesses that use pesticide products, such as landscapers and nurseries, reduce the risks to employees as well as the environment from handling and disposing of pesticides. The program also helps businesses comply with Thurston County's hazardous waste law.

Other fact sheets that may interest you include:

- *Safe Handling of Empty Pesticide Containers*
- *Category I Pesticides and their Unrinsed Containers: Storage and Posting Requirements*
- *Compliance with the Nonpoint Source Pollution Ordinance*
- *Secondary Containment*
- *Spill Plans*
- *Storing and Labeling Hazardous Waste*

For more information about disposal options for leftover or unwanted pesticide wastes, contact the Thurston County Business Pollution Prevention Program at 360-786-5457, TDD 360-754-2933, or visit our website at <http://www.co.thurston.wa.us/health/ehhw/index.html>.

Resources

General pesticide information

National Pesticide Telecommunication Network, 1-800-858-PEST (that's -7378). Provides 24-hour information (365 days a year) on pesticide poisoning, pesticide products, pesticide cleanup and disposal, enforcement contacts, pesticide certification and training programs, and pesticide laws. **Washington Poison Center**, 1-800-732-6985, provides information on whom to contact in case of exposure to, or spill of, pesticides or any toxic substance.

Pesticide storage, handling, disposal, and safety

The **WSU Cooperative Extension** office 360-786-5445, or the **WSDA Pesticide Management Division**, 877-301-4555. **Washington Toxics Coalition** has an extensive information file on many facets of chemical pesticides, including environmental fate and human health effects; call 206-632-1545.

Integrated pest management and non-chemical alternatives

Thurston County offers a number of integrated pest management (IPM) prescriptions that provide non-chemical or least toxic options for treatment of common pests. To obtain copies, please call 360-754-3355 ext. 7273. Other resources include the **WSU Cooperative Extension** office at 360-786-5445, the **Washington Toxics Coalition** at 206-632-1545, or the **Northwest Coalition for Alternatives to Pesticides** at 541-344-5044.

State regulatory status of pesticides

Call **WSDA Pesticide Management Division** toll free at 877-301-4555 for the regulatory status of farm chemicals registered for use in this state.

Pesticide spills

The **local fire department** should be contacted in the event of a chemical or pesticide spill. In the case of a spill of large magnitude, i. e., a ruptured barrel of liquid formulation, or if surface water or ground water is threatened, call the **Washington State Department of Ecology** regional office at 360-407-6300.

Further information on chemicals

Chemical Referral Center, sponsored by the American Chemistry Council. Call 1-800-262-8200. The Center will refer a caller to the manufacturer of the chemical in question. It will also provide telephone numbers of other hotlines that address chemicals.